

# AN EMPIRICAL STUDY ON APPLICATIONS, FEATURES, AND CHALLENGES OF M-BANKING SERVICES IN INDIA

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## Abstract

*Mobile banking refers to the usage of mobile phones to perform banking services online. Mobile banking can perform balance checking, fund transfer, electronic bill payments, P2P payments, monitoring transactions; UPI (Unified Payments Interface) payment system is one of the most popular payment systems. UPI system power multiple bank accounts into one single mobile application; it merges numerous banking features into one hood. This study has also explored the issues and challenges faced by the customers in the mobile banking systems that are critical in the adoption by the customers in using the mobile banking system. This study identifies some of the issues related to banks, mobile applications, security, telecom service operators. The mobile banking system faces the operation of smart mobile phones, security and privacy, standardization of services, and customization. 212 respondents were collected through a "standard questionnaire" created on a five-point interval scale.*

**Keywords:** *Customer, Issues and Challenges, Mobile Banking, Internet banking, Innovation, and Technology*

## Introduction

The application-based banking offers controlled access to the banking services ranging from balance inquiry to complicated fund transfer. The emergence of Mobile banking has helped the urban and the rural population. Mobile banking is considered an essential tool that helps the banks include rural customers as the Mobile user rate is significantly increasing with urban residents. Information and Communication Technology or ICT has not only transformed the whole world but has brought massive transformations to businesses globally. A report released by Internet World Stats (2018) found that before the finish of 2017, the count for Internet penetration had arrived at 3.08 billion people or users. India was positioned third worldwide with a massive jump of 11.34% more than in 2016. To constantly support and cater to customers'

desires, banks offer extensive services through online platforms that are compatible across most devices to diminish expenses, provide improved convenience and comfort to their customers, and run the race to be better than their competitors. In the modern age, customers look for ease of access for their banking needs. They want to conveniently satisfy their banking needs through channels that do not require them to stand under challenging queues or take up much of their productive time.

Following the Reserve Bank of India (RBI) reports, Indian banks are adequately managed and appropriately capitalized. It is no secret that India is one of the fastest-growing economies globally, and its monetary and financial conditions are far better than most countries. Research and studies on Indian banks have come to find that they are resilient in their functioning as they have proved to withstand global economic meltdowns. As of late, India's banking industry has witnessed innovative payments channels, inventive banking models, and smaller banks. RBI's new guidelines may go far in rebuilding the financial industry.

Following the ATMs, the Indian banking industry adopted internet-based electronic banking options. While the initial electronic banking options were planned to service urban customers, it has become a common banking channel for urban and rural customers. The emergence of computer-based internet banking options provided comprehensive coverage of banking services that offered an independent banking environment to the customers. Computer-based internet banking helped the customers save time and effort as they can bank at home any time and improved the efficiency of the banks by reducing the cost. The dependence on the traditional branch banking system is significantly low. The customers now need not have to go to banks to operate their bank account as they can consume banking services in their place by using their credit or debit card to transact.

Strategy Analytics released a report in 2015 that suggested that India would overtake the US as the second-largest cell phone market within the next two years. This growth spurt of mobile users in India echoes the country's digitization. With the introduction of the Digital India initiative, the Indian government has taken a strong interest in the digital era to transform India into an economy that incorporates technology into its fundamental functioning as a pillar for

providing services. The report also expresses that banks that have not yet adopted and implemented mobile banking into their essential functioning face the danger of losing customers to their competitors. Mobile banking is already playing a pivotal role when a potential customer is choosing a new bank in which they would like to place their financial trust. Nevertheless, internet penetration is significantly less in India, being 19% lower compared to other developing nations around the globe. As indicated by the report, the subsequent influx of internet subscribers will be fundamentally determined by portable internet like mobiles, with rural regions and non-metros adding to this development.

### **Literature Review**

**Goi (2006)** analyzed the research on the factors that affect the progress or success of electronic banking in Malaysia. This study shows that the reason behind the success of banking services is using new and updated marketing strategies, mainly in creating E-Customer Relationship Management (E-CRM). Other reasons can be technology development, tools and applications, and support from the government.

**Ibrahim, Joseph, &Ibeh (2006)**explored the main features of United Kingdom banking consumers' electronic service quality (e-SQ) opinion. He analyzed the actual performance of consumers' opinions on the recognized e-SQ magnitudes. This study shows six features of electronic service quality opinion, i.e., correct operation of electronic banking, access and reliable service provision, managing queue, personalized service, facility of approachable and welcoming customer service, facility of targeted customer service, and others.

**Wong, Rexha&Phau (2008)** examines the importance of old-style service quality in the electronic banking atmosphere by reviewing the old-style service quality opinions that deal with current and continuing change in banks' technology and the change in nature of how banks deal with customers. Quadrant analyses are done on quality service features with SERVQUAL scale. In this study, many differences are found in consumer expectations and their performance perception of old-style banking services.

**Chen (2013)** initiated a study to analyze the impact of circulation and accepters of electronic banking services, observed risks, brand attention, and brand image of supporters, on attitude towards using e-banking, and the aspiration to use e-banking. In consensus with sample usage

frequency in e-banking, this work subcategories the sample population into distinct behavioral sections (frequent/infrequent users) to focus on sample features and behavioral models.

**Satyabhusan, Bruning & Acharya (2009)** examined the relationship between Canadian and Indian users' national cultural emplacements and banking service excellence lookout. As per the study, consumers who are short on power distance foresees reactive and trustworthy service. High power distance customers affix greater significance to important service features. Customers high on individuality anticipate common understanding and guarantee from service transmitters. Additionally, Indian consumers impute high significance to tangible features, in contrast to Canadian consumers who find service accuracy more significant.

**Sofri & Thakur (2009)** initiated the study in Hyderabad to look out for the issues and potentials of e-Banking. Elements that have a convincing impact on the acceptance of e-Banking are the Educational level of customers, banking education and knowledge, computer knowledge and expertise, accessibility of internet services were found in the research.

**Javad & Toosi (2005)** examines issues related to the system of Electronic Banking and also represent synopsis and measures the methods used in the system of Iranian. This paper finds out that the best possible practices can be used, and suggestions are given for future development or growth in Iran for the electronic banking system.

**Dube, Chitura & Runyowa (2009)** inspected the degree of acceptance and use of e-banking by retail banks of Zimbabwe and found challenges faced in accepting this technology. An experimental analysis was employed to attain the envisioned goals of the research. Finally, the result shows that although many banks in Zimbabwe have accepted e-banking, the operational level is still low because few customers have adopted this technology. Uniformity with the current legacy system, cost of execution, and safety issues are the main threats experienced by the banks in the acceptance of the e-banking system.

**Sylvie & Xiaoyan (2005)** inspect China's mobile/internet banking market status. Feature of security is why most Chinese consumers start using online banking. Insight of risks, technological and computer abilities, and the old tradition of Chinese people to carry cash are

challenges in online banking. One of the main hurdles that affect mobile banking is the absence of awareness among customers, and they find it difficult to understand the advantages of mobile banking.

**Migdadi**(2008) recognizes the dissimilarities in the e-banking services challenges quality among clicks-and-mortar retail banks in Jordan and the different e-banking services ideas of the UK retail banks, and between clicks-and-mortar and dotcom retail banks in the UK, the webpages detected by the use of website QEM method. Websites are more acceptable in their composition and considerable in the navigation; however, the speed of the homepage download and website accessibility should be developed.

**Laukkanen, Sinkkonen & Laukkanen**(2007) initiated a study to discover how consumers experience several types of struggle to e-banking recognize the service transmitters' knowledge and counseling. Based on the past research, categorization of customer acceptance to inventions is suggested. Four resistance sections were discovered: Non-Resistors, Functional Resistors, Psychological Resistors, and Dual Resistors. The study's outcome shows that users who show both functional and psychological resistance to e-banking are much disappointed with the facts and assistance provided by the service providers compared to those with only psychological resistance or no resistance to the inventions.

**Riquelme, Mekkaoui & Rios** (2009) Banks of Kuwait, the Middle East took under the study (1) to find out which user's service and virtual features foresee complete happiness (b) to govern whether happy customers are using e-banking facilities as compared to little happy customers and (c) to ascertain features of less satisfied customers. The conclusion recommends that satisfaction can be brought in by developing politeness, thankfulness, punctuality, and delivered products and services. The bottommost is the essential element in motivating e-banking satisfaction. The research outcome found out that most of the consumers in the specimen are happy or very happy about service and online systems features.

## **Objectives**

1. To identify the issues & challenges of mobile banking services in India.

## Methodology

The study is empirical in nature. 212 respondents participated in the study. The data was collected from them through a structured questionnaire. Mean, and t-test application was made to identify the results. The method of sampling was convenience sampling.

## Finding of the study

Table 1 displays the gender, where the male respondent is 56.12%, and the female respondent is 43.87%. Those between the ages of 20 and 30 years old make up 38.21% of the respondents, those between the ages of 30 and 40 years old make up 29.72 %, and those beyond 40 years old make up 32.07 %. Looking at the occupation of the respondents, Businessman is 36.32%, the Service class is 27.83%, and others are 35.85%. Regarding the Income of the respondents, income with Less than 1 lac are 39.15%, 1 lac to 5 lac are 37.26%, and More than 5 lac are 23.59%.

**Table1 Respondent's Details**

<b>Variables</b>	<b>Number of respondents</b>	<b>%age</b>
<b>Gender</b>		
Male	119	56.13%
Female	93	43.87%
<b>Total</b>	<b>212</b>	<b>100%</b>
<b>Age</b>		
20 to 30 years	81	38.21%
30 to 40 years	63	29.72%
40 years & above	68	32.07%
<b>Total</b>	<b>212</b>	<b>100%</b>
<b>Occupation</b>		
Businessman	77	36.32%

Service class	59	27.83%
Others	76	35.85%
<b>Total</b>	<b>212</b>	<b>100%</b>
<b>Income</b>		
Less than 1 lac	83	39.15%
1 lac to 5 lac	79	37.26%
More than 5 lac	50	23.59%
<b>Total</b>	<b>212</b>	<b>100%</b>

**Table 2 Issues and Challenges of Mobile banking Services in India**

Sr. No.	Statements	Mean Value	t-Value	Significance
1.	Unawareness among customers about the mobile banking system	4.32	20.89	0.000
2.	Poor internet connectivity and wireless network	4.19	15.61	0.000
3.	Adoption of mobile banking is significantly less among illiterate customers	4.10	16.30	0.000
4.	Security & privacy of customer data is an essential issue in the adoption of mobile banking application	4.22	17.21	0.000
5.	Due to the massive number of online frauds, many customers hesitate to adopt a mobile banking system	4.39	17.74	0.000
6.	Customers of old age still prefer the traditional banking system	3.66	10.45	0.000
7.	Customers in rural areas do not have smart mobile phones to use mobile banking applications	4.29	16.93	0.000
8.	Virus and Malware Attack is a big challenge in the mobile banking system	3.71	10.52	0.000
9.	Due to continuous fraud, customers are unable to develop trust and faith in the system	4.30	18.34	0.000

10.	KYC / AML is another critical issue faced by the mobile banking system	4.14	14.55	0.000
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Table 2 displays the Mean values for the statement concerning the “Issues and Challenges of Mobile banking Services in India,” the mean score of the first statement, "Unawareness among customers about the mobile banking system," is 4.32, poor internet connectivity is another major issue "Poor internet connectivity and wireless network" having the mean value of 4.19. Less education is also found as an issue “Adoption of mobile banking is very less among illiterate customers” having the mean score of 4.10, along with that data security is the biggest challenge “Security & privacy of customer data is an important issue in the adoption of mobile banking application the mean value is 4.22.” The mean score is 4.39 for the statement "Due to the huge number of online frauds, many customers hesitate in adoption mobile banking system," statement "Customers of old age still prefer traditional banking system" has the mean value of 3.66. Location of mobile banking is also a challenge "Customers in rural areas do not have smart mobile phones to use mobile banking applications" having the mean score of 4.29, statement "Virus and Malware Attack is a big challenge in the mobile banking system" has the mean value of 3.71. The statement "Due to continuous frauds, customers are unable to develop trust and faith in the system" has the mean value of 4.30. The last statement, "KYC / AML are another important issues faced by the mobile banking system," scored the mean value of 4.14. T-value of all statements in the context of Features & adaptability of Mobile banking services in India is significant because t-value statements are found to be positive and significance value also less than 0.05.

### **Conclusion**

The service providers of mobile banking services must address critical issues and challenges in mobile banking. RBI must appropriately regulate the rules and regulations to smoothen India's adoption and functioning and mobile banking services. As per the survey conducted, some of the common issues and challenges identified were security and privacy, uneducated users, poor internet connectivity, virus and malware issues, and others. There is a need to provide better security options to improve the authentication process for secured and safe mobile banking transactions and make users enjoy mobile banking services and their benefits. All such

challenges need to be overcome to successfully implement the mobile banking system and its acceptance by the customers. Application of Mean and T-test has been made to find out the outcome of the research; all the statements are found to be significant as the significant values for all statements are less than 0.05.

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