

## Customer Experience with Mobile Banking: An Analysis

Twinkle Malhotra<sup>1</sup>, Dr. Sunil Kadyan<sup>2</sup>

<sup>1</sup>Research Scholar School of Management & Commerce Manav Rachna University Faridabad

<sup>2</sup>Associate Professor School of Management & Commerce Manav Rachna University Faridabad

### 1. Introduction

With continuous changes taking place in various areas worldwide, the most significant has been in the field of communication. Even developing countries in Africa are not an exception to this. In fact, the speed at which the communication revolution is taking place in countries like Nigeria has surpassed the progress made by developed countries, and within a short span of two decades, the entire communication scenario has undergone a total change. Today, because of the latest technologies being used in communication, more and more people are resorting to mobile banking, which is increasing the number of customers who are accepting mobile banking. Mobile banking has become a significant part of the global banking business, giving customers access to their banks in a convenient manner. When a bank offers multiple delivery channels for its services without changing the production process, the customer can choose the channel that best meets their needs. One of the most competitive industries is financial services. To gain a competitive advantage, banks are seeking to develop integrated customer services and decrease costs. The mobile phone will shortly become the primary point of contact with professionals outside the home. These and other forces will converge to generate a powerful picture of the rise of the mobile economy. For the banks, wireless technologies will offer a continuum of opportunities to explore their business and servicing models that will improve their product offerings, distribution opportunities, and ultimately profitability.

By a process costing less than the installation of an infrastructure of fixed telephone lines, individuals can acquire access to a payment account that permits them to dispose of remittances, store savings, and effect direct debit transactions as and when they wish, and where they wish. In this regard, the mobile handset presents the dual advantage of being, first, within the reach of the greatest number of modest-income individuals, and, second, serving as a means of communication at the same time. The concept of mobile banking has not yet fully arrived, and usage patterns are in a phase of evolution and a continuous process of change. Banks should provide banking services based on mobile banking to satisfy the needs of customers during their daily lives, creating innovative services that will be borderless to their regular banking services. Banking to its customers, based on customer preference irrespective of the devices chosen by the customer, such as ATMs, online banking, phone banking, and mobile banking, gives seamless access to all transactions across the globe. The purpose of this report is to analyze the attitude of customers towards mobile services of various banks in NCR. The key findings try to identify the latent group of customers who can be targeted for rolling out mobile banking services. The report concludes with suggestions for targeted customers. These suggestions are based on the profile of customers interacting with their bank branches. The report highlights that, like various sectors, financial sectors are also going to be affected by the innovation due to the association of mobile service

applications, banks, and handsets in the time of increasing mobile phones from multifunction tools. The fastest are going to get the biggest benefits with strong profits and the largest client databases.

### **1.1. Definition and Evolution of Mobile Banking**

In layman language, mobile banking is a way to access bank accounts and conduct financial transactions through mobile phones. In more refined language, it is a service provided by a bank or financial institution that allows its customers to conduct financial transactions remotely using a mobile device such as a smartphone or tablet. It allows customers to conduct transactions such as bill payments, online banking, fund transfers, and mobile payments. Mobile banking is particularly referred to as SMS banking services. Although mobile banking, internet banking, and phone banking are all shorthand for mobile banking in many places, mobile banking is already popular in East Africa, where most people do not possess a bank account but many people have cell phones. There are a few technologies that encourage mobile banking, such as SMS technology and browsers. The mobile channel provides new opportunities for the retail banking sector and has become a necessity for banks seeking to meet the demands of a customer base that is becoming increasingly digital. Today's customers expect convenient, consistent, and tailored multi-channel banking services. Banks must ensure that mobile banking services are designed and maintained to support customers' lifestyles, work patterns, and financial needs. As the Internet only existed in research laboratories and the military until the 1960s, until 1998, the only way to gain electronic access to one's bank account was through an ATM. Since 2005, bank customers have been able to use a terminal to access their bank accounts over the Internet. Major commercial banks in both developed and developing countries have made progress in increasing banking comfort with banking applications for smartphones. In the near future, customers will be able to use smartphones to pay for everyday goods, services, and experiences using mobile wallet technology.

### **1.2. Importance and Benefits**

Customers form a vital part of any business, and customer satisfaction is a prime objective of business organizations. In order to be successful, customer satisfaction is very important. Mobile banking is an innovative service through which financial transactions can be initiated and performed using mobile phones. It is through this service that customers can access their bank accounts for transactions directly from wherever they are. Mobile banking technology enables the creation of new products and services. M-banking or mobile banking can offer various opportunities for consumers as well as for banks. The major benefits of mobile banking are quick and easy access to accounts. Mobile device synchronization across multiple devices allows mobile banking to keep track of spending, saving, budgets, trends, and goals. Banks now have greater access to their customers to help guide products, services, and friction points. The customer research group study showed that mobile banking and mobile wallet consumers have a significant increase in satisfaction, an increase in credit card share, and a reduction in attrition rates. A research study showed a significant decrease in mobile phone fraud when customers used mobile banking or mobile wallets because transactions were conducted over a secure network or by a bank that backs their customers' transactions. Customer research results showed the initial trigger to adopt mobile banking was the ability to check account balances. Mobile banking allows customers to check account balances, make payments or person-to-person mobile payments, transfer money, and remit using a secure mobile device. The value and experience of mobile banking allow banks to

generate transaction fees from their customers. Banks are also able to cross-sell and up-sell proprietary services through customers that use mobile devices.

## **2. Overview of the Banking Sector in Delhi NCR**

The banking system is busy raising the gross domestic product, largely through its modernization and innovative ways. Mobile banking, one of the recent developments in banking technology, has taken banks out of the ambit of money changers as customers gain access to banking services at their homes through mobile phones. The results of the investigations certify the significance of mobile banking in customers' lives in urbanized areas. The results define that mobile banking services can benefit the masses, developing future virtual bankers, and can be used to provide real-time solutions to basic problems in temporary relief for customers. Some of the key advantages of using mobile banking are as follows:

Convenience in day-to-day banking transactions: No visit to the branch or ATM is required for balance inquiries, mini statements, and fund transfers. With better interoperability between different bank customers, hassle-free funds transfer among customers of different banks enables customers to access makeshift services. As the mobile number is the key identifier of customers, it brings banking to the doorstep in remote areas with no need to step out of their homes. Banks can contact customers mainly through SMS, which can be treated as a modern service delivery module to spread awareness of the services rendered by the bank.

### **2.1. Key Players and Market Share**

The player with the highest market share in mobile banking is Airtel, with figures of 44%, followed by ICICI Bank, State Bank of India, and HDFC Bank, with figures of 11%, 10%, and 7%, respectively. Banks like Axis Bank, Citibank, Kotak Mahindra, Bank of Baroda, and PNB have less than 2% market share in mobile banking. Estimates suggest that around 100 million new mobile banking accounts will be added. With the change of policies in 2019, more value-added services are expected to be launched to drive the next phase of growth in mobile banking. After significant consolidation in the Indian financial services industry, the top few banks own a lion's share of the transaction banking market, and mobile banking is increasingly making this transaction banking available to the common man on his phone. Such banks have always embraced technology and become early entrants in bringing this advantage to their customers. Although public sector banks have also been quick to latch on to mobile producers to enable small value transactions, the experience of using mobile banking on their platforms is not as appealing or successful as on those of their private sector counterparts.

### **2.2. Regulatory Environment**

The following regulatory and other authoritative instruments shall act as the underpinning factors underlying the study related to the matter:

These guidelines are those which are operative in the territories, which extend to the banking facilitation of these territories. Nonetheless, the overall guide and code of conduct, in comparison to mobile banking's good working, shall be upheld by mobile banking entities worldwide. The aforementioned instruments that will direct mobile banking entities in the territories are as follows:

1. The Payment and Settlement Systems Act

2. The Banking Regulation Act
3. The Foreign Exchange Management Act
4. The Information Technology Act
5. The Payment and Settlement Systems Act
6. The Prevention of Money Laundering Act
7. The Know Your Customer guidelines

The abovementioned acts and guidelines shall complement the regulatory framework and will serve as indicative guidelines describing the structure of the execution of mobile banking services. These rules act as the profound undertaking and responsibility managers in the formation of good governance or a testing platform for mobile banking entities.

### **3. Mobile Banking Adoption Trends in Delhi NCR**

Mobile banking has significantly and rapidly increased since the introduction of various banking channels in the e-commerce market. There are a number of banks in India that provide mobile banking services. With the endless list of transactional activities coupled with the advantages of mobile banking, it is essential that the adoption of mobile banking services be established. In this competitive era, market players are in continuous demand to enhance their services in order to maintain their current customers and focus on attracting replacement customers. Mobile banking is forecasted as the next main point in the banking sector. In India, there are several factors like the number of mobile users, high attraction towards diversified advanced technological tools, and easy connectivity due to fast-growing urbanization.

Mobile phones—a rapidly growing personal asset of people—have the ability to provide comprehensive banking services to the extreme convenience of the customer. Therefore, mobile banking has become another opportunity and need for banks to maintain good customer relations. The necessary technologies are broadly available, making transactions real-time, even in non-banking hours. Due to the increasing generation of cell phones and their convergent characteristics, it is now shaped in a far better way than the card industry. Currently, well-established banks and payment corporations have already entered into money transfers, prepaid cards, vending, electronic bill paying, and the ability to pay with mobile applications.

#### **3.1. Current Penetration Levels**

Mobile banking in India is currently in its infancy, with very poor penetration among mobile phone users. India has more than 100 million mobile phone users. Mobile banking services are offered by only a few banks, while all other banks are offering only the SMS banking interface. On the smartphone platform, one bank has the superior and newer application. The low level of penetration of new mobile banking innovations is reflected in the fact that this bank has only 16,000 users of this product at present. However, there are many constraints that are limiting the expansion of the service. While the SMS-based service is available on all types of phones, certain banking operations can only be executed on GPRS, EDGE, and 3G-enabled phones. With 33 million such phones being active in India, this is an extremely poor percentage. The low level of 'smartness' of the handsets is a barrier and impedes more people from using the application. SMS is also less secure, and many compliance issues need to be addressed, due to which the list of higher-end services has to be kept to a minimum, which in effect reduces the application to a balance inquiry

and some banking transactional capabilities. The concentration of mobile phone users among the leading service providers compounds the issue of current account holders of commercial banks, which is largely from metropolitan cities and urban areas, already has an average propensity for adoption compared to suburban users. Besides, the policy of the commercial banks is a constraint, with certain services, such as fund transfer between two unrelated third parties, being completely off-limits. Large transactional limits and cumbersome registration and authentication processes hinder usage as required. Additionally, the consumer's own fear of misuse of the mobile phone, the lack of the right service provider, and concerns about privacy and theft are additional reported constraints to the study. The lack of public awareness and the meager amount of information pushed by the banks are detrimental to the students' awareness. These suppressive factors have led to very low diffusion levels, with mobile customers cited earlier being only 16,000.

### **3.2. Factors Driving Adoption**

A focused discussion is also held within RBI's Bulletin in December 2013, in which various factors that could be influencing the adoption of mobile banking technology are highlighted. These factors are fast mobile device adoption, advances in connectivity, and many sophisticated apps in the area of social networks, email, and games. These factors have been discussed by the RBI at least after data on the usage of mobile banking indicate that customers have adopted the medium compared with other modes of banking. One possible factor related to these developments is the use of smartphones, apps, and connectivity at current levels that could have led to the migration of customers to the new ways of handling banking transactions, including by looking beyond the traditional ICT utilities.

The RBI has also implemented a few initiatives to promote mobile banking and mobile-based payment services in India, and the discussions do identify some concerns such as whether the existing telecom infrastructure can handle the increased mobile banking volume or whether the safety of mobile banking transactions is affected by malware or rogue applications. Additionally, in the presence of a very limited regulatory framework on mobile banking, there is an overwhelming risk of service providers subsuming the activities that banks traditionally perform, thereby leading to unforeseen adverse effects on the Indian financial sector.

### **4. Customer Perceptions and Attitudes towards Mobile Banking**

Customers' perceptions and attitudes towards mobile banking are influenced by many factors. Personal traits, such as sex, age, income, education, and cultural background, which individuals possess, are important determinants in shaping attitudes towards adopting technological innovation. Other factors, such as consumers' prior experience with online banking, convenience, ease of use, security, and customer service, also shape attitudes and perceptions. Among the most examined factors that motivate the acceptance of mobile banking, financial factors, including financial gain, perceived usefulness, trialability, regular use of ATM services, cost savings, quality of customer service, reliability, trust, and security, are positively associated with the adoption decision of mobile banking.

It is shown that the economic incentives and the drivers available in the financial sector help shape innovation in mobile banking. The most attractive features for customers were the ability to access banking services anytime and anywhere. Consistent with prior studies, one common finding across

studies is the importance of appropriateness, perceived usefulness, and ease of use. People in certain regions are interested in using mobile phones to conduct banking service transactions. Factors that primarily affect mobile banking adoption include perceived usefulness, ease of use, perceived risk, information cost, all other costs, government influence, and consumers' earnings. In terms of mobile phone usage attitudes, satisfaction with the bank, and customers' awareness, banks must provide better marketing strategies and monetary support for relevant customers.

#### **4.1. Convenience and Accessibility**

Convenience still remains the biggest factor why many customers switch to mobile banking. The services can be easily met, since mobile banking no longer depends solely on bank opening times, but is available everywhere, including holidays and weekends. Mobile banking is easily accessible, wherein customers do not have to stand in long lines. The services can be easily operated by simply touching the buttons on a cell phone. Many services available on ATMs can easily be carried out with access to internet facilities. The cost of cellular calls is a considerable reduction. The status of transactions can be known whenever and wherever required. The 24/7 availability on a service basis meets the service expectations of customers with less reliance on traditional bank functioning hours. Funds transfer within one's own account, platform services for outsiders, credit card, and loan services are other customer services that are expected from mobile banking.

On the technical side, customers basically want a variety of information they have today on ATM screens and in the bank today. They also want to conduct most of the transactions they perform at the bank via their mobile phones. This includes such services as paying bills and transferring money, which are simpler tasks. Smartphone users are also seeing more transactions happening through their phones, both in terms of higher usage in existing services and new services being offered.

#### **4.2. Security Concerns**

Irrespective of the many positives of mobile banking, it has its own share of disadvantages. The biggest of them being issues related to security and data breaches. Loss of mobile phones, theft of data, deception by criminals, sensitive personal and banking information getting stolen, personal identifiers at risk, and exposure to publishing private data like boarding pass information, contact numbers, dates of travel, and addresses are the foremost security concerns for users. Concerns over unauthorized access, data theft, theft from a subscriber account, or even wired fraud for unauthorized trade are significant. With the increasing proximity of mobile banks being used in shopping centers, restaurants, hotels, and coffee shops, paperless air tickets, boarding passes, and ticket booking reconciliation of business expenses, hotel and car reservations for holidays, and other private transactions, together with contact numbers, dates of travel, and addresses are at risk. As people use the same phone for their personal and business matters, it becomes the duty of the banks, in collaboration with the service providers, to inform the users of the dos and don'ts. Bank-customer relationships are built on trust, loyalty, and satisfaction. In the case of mobile banking, the availability of easily understandable and simple instructions makes the users comfortable in handling the transactions. The proliferation of various forms of mobile and real-time data is stoking the insecurities raised by the banks, and the confidence of the customer has decreased. Special software, firewalls, and data encryption requirements consume substantial

resources of the users. They interface the customer with the host and structure the interchange of information, providing the customer's capability to select, view, and perform transactions. In view of the dwindling value of mobile data threats, this security software enables the customer to focus on the task at hand and strengthen the customer's security in payment transactions, reduce losses, and increase confidence. The breaches of confidence and the cost of stolen identity set in.

Reflecting the practice of everyday banking, identity theft and fraud occur when the premise that banks do everything to protect customer identity information is proven wrong. The use of third-party merchants, airlines, credit card companies, service providers, online retailers, Internet payment providers, and others in the supply chain of business processes exposes customer data. The regulations from federal banking agencies state today that financial institutions used to retain the broad guidance on the need for risk management of third-party relationships. Keeping their security policies safe ensures both authentication and authorization and evaluates risk ratings based on a data classification matrix.

The Data Protection Act uses different procedures like confidentiality, integrity, and availability of customer data with the ultimate goal of keeping crime at bay. To avoid the disclosure of financial information, only the minimum data required for the transaction is collected. In case of a security risk, banks kill the user login in real-time and force them to relogin in encrypted mode. Such sites are rated best by customers in terms of security and convenience. Other banks that also safeguard their interests deliver seamless and secure access to many customers. The revised agreements between the bank and the customers are brought to the notice of the customers every time. The agreement for provided services enhances account-holder safeguards to protect customer privacy and confidentiality of customer data.

## **5. Impact of Mobile Banking on Financial Inclusion**

### **Impact of Mobile Banking on Financial Inclusion**

A considerable proportion of the population still does not have access to banking facilities in India, except for Delhi. However, relatively little research has been conducted to date on focused banking and technology in the context of developing countries. Therefore, the opportunity of mobile banking as a financial service to improve financial inclusion in rural India has important consequences. Being included in the banking sector without visiting a physical bank branch requires an outreach of banking facilities throughout the country.

We conducted a questionnaire-based survey that collected data from both rural and urban areas of Delhi. Our random sample consists of 1,030 existing respondents who were asked multiple-choice questions about their individual bank usage, perception, and engagement with a personalized version of a survey on mobile banking usage. Our analysis examines the determinants for five outcomes: the adoption problem of mobile banking, awareness, satisfaction or no intent, and no adoption, as well as the possible eradicating factors like age and income. Practices in inclusion approaches that underpin initiatives to improve customer trust in rural banking and financial services can inform specific antecedents for the problems with mobile banking in developing countries, supporting targeted actions for both operators and regulatory bodies to help people better understand and, consequently, better use mobile banking services.

### **5.1. Reach to the Unbanked Population**

India is a vast territory where the proportion of the population residing in rural areas is about 70 percent of the total population. Banking habits are generally formed during youth. Since school education in India is almost accessible and financial literacy is likely to be acquired by all, it is the duty of the banking industry to meet this need. However, banks are not market-driven by their essential features. They cannot move their branches to tap or otherwise operate in areas that can be reached only with difficulty or at relatively high expense. In the customer-centric world, it seems ridiculous that one has to reach a physical bank branch in the same manner that customers did a century ago. Mobile banking provides a new channel through which established banks and others can spread their services to the unbanked population. Financial institutions can figure out various marketing strategies to adopt supportive elements as well as promote the bank through wireless banking services. Their focus should be to innovate some user-friendly packages through government support and local cooperation with educational institutions and non-profit organizations.

### **5.2. Microfinance and Small Business Support**

Small business support can be a powerful development tool that can help restore stability and combat poverty by providing financial assistance to small entrepreneurs, thus enabling them to employ others. Public policies also play a significant role in developing local small businesses, notably by ensuring growth in market demand for their products and services. Several reports and proposals suggest ways to promote and develop small businesses. The digital economy presents enormous opportunities for both the developing and developed world, through the ability to produce ingenuity in the high-technology and information-abundant economy without having to overcome comparatively weak infrastructure, high unemployment, weak institutional infrastructure, and governance systems.

An investment has been made in a start-up company whose mission is to promote technology use and online banking services among small business owners and operators; it will also provide other services. Digitalization and digital compliance of the MSME sectors are found to have substantial positive impacts. Promotion of technology, advanced technical and professional business skills, technology-based learning, industry-driven training, and online networks increase access to new markets, simplify compliance systems, and increase transparency and availability of finance. The mobile banking options or other less complex transactions available through internet banking in the near future will reduce costs and speed up the transfer of information and payments, put more tools into the hands of small entrepreneurs, and attract new small business customers. Business suites designed for small businesses will also be available.

Forecasts indicate that MSMEs will adopt internet access more quickly than some larger businesses will adopt and extend internet access. The process will be accelerated by changing the small business banking system into a pattern more closely resembling that of retail banking services. For example, mobile banking allows limitless options for small business customers to stay connected with their accounts, and mobile services tailored to individual small business banking customers' needs are emerging rapidly. Digital signature technology is already in existence and has enormous promise.



## **6. Challenges and Barriers to Mobile Banking Adoption**

Because of the mentioned gaps in synergized offerings, mobile banking adoption might be off-target at several stages. However, the first stage problem is insufficient attention to user experience, leading to usage barriers. Without resolution of usability issues, achieved and future mobile banking solutions are at risk of losing users. Some of the general user experience bottlenecks of mobile solutions can be found in slow networks, security issues, navigation complexity, content synchronization, dual site maintenance, interoperability issues, and high initial costs, which may disadvantage consumers for LBS usage. Additionally, integration complexities and interoperability are the main architectural barriers influencing both mobile banks and consumers, while service complexity and financial services variety, i.e., clear business type promotion and risk management, are listed respectively as product and business-related barriers. Furthermore, the most frequently stated banking-related reason for not using mobile banking is that they do not see any advantage to using banking services through a mobile phone.

Also, there is a lack of capacity. This, however, does not mean that mobile operators are reluctant to engage in mobile banking because of the anticipated high transaction costs, as widely believed. They are just looking to recover the high start-up costs of building the infrastructure. High discriminatory pricing conduct is imposed by interconnection charges. Because of per-call setup fees and per-minute charges for voice calls, accessing foreign networks is more expensive than accessing the home network. Hence, the offer of attractive services to foreign customers, e.g., mobile banking, would result in high traffic volumes. Let us also ask how e-banking services can operate without mobile operators' say-so. Consumers who feel distrust have much experience regarding fraud; the lack of presence of ATMs and bank branches, enabling personalized exchanges and financing use of mobile banking, are the principal determinants. The elderly perception is that mobile banking is of no relevance to them; the barrier for non-users was the complexity of use and cost of use, hence no incentive to utilize banking services through mobile channels. The mobile platform is strongly associated with the teenage group, who tend to exhibit impulsive behavior. In addition to age, other demographic characteristics that were found to influence use include income, internet experience, and educational level. This suggests that a segment targeting strategy, based on these parameters, may increase the number of users in the future.

### **6.1. Technological Barriers**

Technological issues include customers' equipment for mobile financial services. Mobile banks also bypass the expense of developing a mobile application that is available in various configurations that differ between devices and operating systems. The elements of the channel can be limited to accessing a set of transaction services over voice or text, with the introduction of a voice menu for shortcut execution of system commands. This restriction can prevent money transfer features like transfers to an account in another bank. Smartphone applications, on the other hand, can display all customers' balances, pay mobile bills, allow changes to customer particulars, provide locations to the closest ATM of the bank, and sell e-wallets.

Customer hesitation towards smartphones comes from two causes: the cost of the terminal and fragmented mobile market players. In reality, the best smartphones can vary based on the configuration of the terminal. Prices play a fundamental role in mobile software use among

customers, particularly in India, where the annual sales of smartphones have a significant value. The fiscally less profitable and approachable customer base in smartphones can play a fundamental role in promoting mobile phone banking relative to smartphones, among the poor unbanked. They therefore require a more costly terminal, particularly a smartphone or a laptop, to operate at a higher technological level whether the customer wishes to buy resources or invest capital. Not all customers can afford such a costly terminal, particularly in regions such as India, where affluent and low-income sections are so close. Customers for payments to the government and for transportation services, as well as for online goods, can use basic function phones.

## **6.2. Lack of Awareness and Digital Literacy**

The majority of the customers in this study were found unable to differentiate between e-banking and mobile banking after the introduction of mobile banking services in India. At least 80% of the customers said no to the question, "Have you ever been educated or explained about banking products that are not branch-based?" All service providers were found to be unable to help the customers, apart from only suggesting whom to ask for help. This result is also confirmed by the response where 60% of the customers were found unable to answer, "Do you differentiate between e-banking and mobile banking?" It also seems there is not much clustering effect when customers' tendency changes with respect to age group, profession, income, or demographic profile. This study also tries to find out if customers were properly educated whenever new services are launched in the market or introduced by the service provider internally. About 60% of the customers agreed that they were not properly educated or explained whenever a new product was introduced in the market. Also, the majority of the customers' population did not have the basic knowledge of e-banking. Therefore, further research is advisable to find out the satisfaction level derived by the customers from the services offered and contracted through mobile banking because the service providers need to educate customers so that they do not hesitate to use mobile banking services.

## **7. Case Studies and Success Stories**

A new phase in India's banking history started with the rise of e-banking and m-banking. Many of India's leading commercial banks have joined the mobile banking bandwagon with eagerness. Some of the front-runners have even heralded this as a truly revolutionary initiative by aligning themselves with technology companies that offer technology enablers on both the network infrastructure as well as devices.

**Case Study 1** A nationalized bank in India has co-branded with a big mobile service provider to extend m-banking to their account holders. The service enables customers to check account balances, view mini statements, and transfer funds within their accounts in the bank. They envisaged that one of the main driving forces for m-banking would be the set of urban youth, who would be data-savvy marketers requiring instant access. The next active layer would be a section of people working in small entities in the unorganized sector that would require the services to be processed and offered without the inhibiting high transaction costs. The service charges are set to be minimal.

**Case Study 2** An apex bank in the financial sector in India had been providing a vast spectrum of services to individual consumers, from savings and corporate accounts to loans and credit cards,

domestic and cross-border transfers, cash management and online product services, merchant finance and international trade, custody services, venture capital, asset management, and primary securities services. The customer reach at the bank rates pretty well with most commercial banks in the country. It embarked on a small pilot phase of a novel technology. The mobile service provider sent out plain text messages and multimedia clips to account holders that requested the same. Their move especially reaches out to an elderly clientele that cannot interface with futuristic state-of-the-art equipment in the banks for performing transactions.

Case Study 3 A scheduled commercial bank had 76 branches located mostly in the industrial belt of Delhi. In the action research period, the bank had enabled Inter Branch Remote Access Terminal Accounting, including Search Online of Outstation at several of its branches and had entered into a tie-up with a cell phone company to provide a co-branded product facility for its customer base to perform C2B and B2C transactions. The bank made an attempt to target migrant Indians, particularly laborers who would currently have to wait to wire transfer money home. Such customers would, within the surroundings of a mobile kiosk, be able to sell their money in their account and then request the shopkeeper to also wire transfer up to half the amount to their home manager's bank account. The venture administrators had identified that the shopkeeper in their case was just going to be conversing with their routine passbooks and performing the same function when the laborer eventually visited the bank for a personal transaction.

Case Study 4 A 5-year-old private sector bank, with operations in north and central India with 36 branches that are soon scheduled to be extended to nine more locations, moved forward with a new cost-effective technology-kindred product to keep pace with the apparent m-banking imperative. They have teamed up with the mobile service provider for m-banking. The mobile client interface functionality was custom-built keeping in mind the semi-literate/illiterate non-smartphone client base, thus behaving rudimentary fundamentals on a regular GSM model. Client instructions faced sturdy challenges in keeping in tune with the technological capabilities of existing software products. The bank operations enjoy the advantage of performing real-time transaction processing.

### **7.1. Innovative Mobile Banking Initiatives**

What are different innovative mobile banking initiatives to attract customers? Can these initiatives attract customers to use mobile banking services and do more financial transactions using their mobile phones? In today's competitive world, when every bank, every telecom operator, every e-commerce portal, and other institutions are trying to attract customers by providing supreme services, products, discounts, and other rewards, mobile banking is also catching attention among users. Banks are doing everything possible to attract customers towards branchless banking or more through mobile banking. One important reason is that banks realize that attracting customers with mobile banking is one of the best ways to connect with clients who have no regular bank account, especially in rural areas. Banks embrace mobile phones as the main platform for extending services to all those unbanked clients, thus getting them to come under the banking fold. Banks aim to create a network of bank-led business correspondents in each village who will enable these transactions using handheld terminals in a few years. The Government of India has also come out with a unique ID project waiting to provide ID to all residents. This will enable them to open bank accounts and also facilitate subsidy transfers. These projects, together with mobile banking services, will attract

many people to avail themselves of mobile banking services and perform all their financial transactions using the different delivered channels with satisfaction. But on the other side, lots of challenges need to be addressed for this to take place and contribute to financial inclusion and rural development. This section sheds some light on all such initiatives taken by banks and their affiliates for expanding the mobile banking network and creating awareness to enable the use of m-banking.

## **7.2. Customer Testimonials**

I have been using Jana Small Finance Bank mobile banking services. I have installed the Jana Bank app. Initially, I was a little scared to use the app as I am not from the computer field. But when I downloaded and opened this app, its GUI is very simple to understand for me. Its security and reliability are also very good. I am fully satisfied with the app and have given 5 stars.

It was difficult to make payments during the lockdown. And it was not safe to go out to make money. Many people went to the Deendayal Vyapar Bhawan in Dehradun and used their accounts to do it with the help of this app. This has made it much easier for the businessmen. I am keeping all the security measures high and advising people that without knowing the password, they should never open any message or click on any link over the phone. They always have to log in to the Jana app by simply typing the password or scanning their fingerprint.

## **8. Future Trends and Opportunities**

This research paper ultimately points out a few social facts and their influence on human lives. The result of this survey suggests that awareness of mobile banking services is already at a very good level due to the increased centrality of mobile devices in our lives. Mobile devices are very personal to people, and as the increase in transactions and daily exigencies continues, the use of financial services will be performed using mobile devices. The study provides important insights into the acceptance of mobile banking and will help providers structure their contracts in such a way that will appeal to their customers. The results from the research highlight a few regulatory threats that are sensitive to the conditions of customers. The present study is exploratory and is focused on a limited number of customers; however, it provides insights that could be useful to financial institutions planning to launch mobile banking services. India, with its strong technical background represented by information technology, has a high mobile penetration level. There is a surge in technological innovation and technology-driven systems. Each service offered by a bank is created by the bank according to the growing needs of the customers. Customer demand for, as well as the ready availability of, these services influences banks to deliver improved and customized services guaranteed to satisfy and retain their customers. Satisfaction, as well as bank image, is crucial for the future of banking. Due to this demanding environment, consumer needs for an anytime, anywhere service are evident. These needs are satisfied by the creation of mobile banking facilities. It is evident that mobile banking is ready to explode. The surge will occur when people who have had negative experiences in the past forget about them and consider themselves cautious; they will try the new medium and adopt an economically enhanced routine and secure future trend. With the enormous number of mobile subscribers with hands-on experience in the usage of multimedia and sophisticated software in their handsets, it is undeniable that mobile banking is international.

### **8.1. Artificial Intelligence and Personalization**

Artificial intelligence is disruptive technology, and by enabling faster learning algorithms and greater computing power, it is changing many sectors, including the banking sector. The introduction of AI technologies like machine learning algorithms has led to the creation of bots, assistants, personalized messaging, faster decision-making on loans, reactive automation, fraud prevention, improved risk analysis, segmentation of clients, and personalized services. Chatbots have become commonplace in mobile banking customer service systems. These chatbots function as the first line of defense in making customer service bots more efficient, as well as being available round the clock. It is hoped that machine learning algorithms incorporated into bots will enhance their understanding and comprehension of customers' queries.

AI helps banks in personalization. Unlike the localized interaction of a bank clerk or staff, a bot can integrate with other systems to offer personalized services. By incorporating smart bot technology into personal banking or a customer service system to identify the bank's best offer and recommend that offer to the most profitable customers, banks can create better engagement and build a financial advantage. AI doesn't only help sales, but customer service too. AI learns from a vast amount of customer data and from analyzing behavior. It conducts within the context of a dialogue, with personalized responses tailored for the customer. Bots can utilize smart technologies to inform customers of financial rewards, onboarding processes, and provide payment guidance.

## **8.2. Integration with Emerging Technologies**

Mobile banking is poised for the next major transformation with the growth in emerging technologies such as cloud computing, social media, and integration of EDI techniques. Cloud computing will help customers store their financial statements in one place, rather than on a device, and the use of social media will enable banks to develop a new system of banking to serve customers. Interactive and secure mobile banking services offered to customers via integrative EDI techniques will help businesses deliver products to the market quickly and provide services to customers. The study seeks to provide assistance and develop these emerging technologies, including customers, the banking industry, and government policies to create a connected world. In that respect, the study of mobile banking that integrates these emerging technologies, such as cloud computing and other existing services, could be helpful. The present work may perhaps only be seen as an embryonic stage in the study of mobile banking, and it does not cover or explore all aspects of mobile banking and its related technologies. The growth of mobile banking might reduce the necessity of banks and increase mobile banking usage. The results based on unreliable technology acceptance models are to evolve among bank account factors, security concerns, and service conduct. As mentioned, the study seeks to develop and integrate mobile banking with emerging technologies, and the results could be helpful for future research. The global feedback on social media and interest in new products and individuals' current location preferences aim to develop technologies to expand the bank's customer base and establish a well-connected banking system. High-definition flashing or biometric machines can encourage and facilitate customer-friendly financial services and use the latest mobile banking expansion algorithms.

**Funding:** No funding was provided for the completion of this study.

## **Declarations**

**Conflict of Interest:** The researcher declares that they have no conflict of interest.

## References:

1. L Rajaobelina, I Brun, R Line... - ... Journal of Bank ..., 2021 - emerald.com. Not all elderly are the same: fostering trust through mobile banking service experience. [\[HTML\]](#)
2. C Chungu, J Phiri - Open Journal of Business and Management, 2024 - scirp.org. Factors Affecting the Adoption of E-Banking on Customer Satisfaction in Developing Countries Based on the ES-QUAL Model: A Case of Investrust Bank. [scirp.org](#)
3. W Adiputera - Journal on Economics, Management and Business ..., 2023 - plus62.isha.or.id. nalyzing Trust, Satisfaction, and Loyalty Dynamics: A Study of BNI Bank's Savings Customer Relationships in the Banking Sector. [isha.or.id](#)
4. A Wahbi, K Khaddouj, N Lahlimi - International Journal of Accounting ..., 2023 - ijafame.org. Study of the relationship between chatbot technology and customer experience and satisfaction. [ijafame.org](#)
5. ST Ankrah, Z He, L Asare-Kyire... - Total Quality Management ..., 2024 - Taylor & Francis. Beyond cash: a user-centric approach to mobile payment growth, service failure tolerance and continuance intention. [researchgate.net](#)
6. R Hanif, W Astuti, S Sunardi - ... Business Management and ..., 2024 - ejournal.trescode.org. The Mediating Role of Customer Satisfaction in the Effect of Perceived Enjoyment on Customer Trust In Online Investment Application. [trescode.org](#)
7. J Kim, K Yum - Applied Sciences, 2024 - mdpi.com. Enhancing Continuous Usage Intention in E-Commerce Marketplace Platforms: The Effects of Service Quality, Customer Satisfaction, and Trust. [mdpi.com](#)
8. N Souiden, R Ladhari, W Chaouali - International Journal of Bank ..., 2021 - emerald.com. Mobile banking adoption: a systematic review. [\[HTML\]](#)
9. C Changchit, T Klaus, R Lonkani... - Journal of Computer ..., 2020 - Taylor & Francis. A cultural comparative study of mobile banking adoption factors. [academia.edu](#)
10. S Kamboj, M Sharma, B Sarmah - International Journal of Bank ..., 2022 - emerald.com. Impact of mobile banking failure on bank customers' usage behaviour: the mediating role of user satisfaction. [\[HTML\]](#)
11. P Patil, K Tamilmani, NP Rana, V Raghavan - International Journal of ..., 2020 - Elsevier. Understanding consumer adoption of mobile payment in India: Extending Meta-UTAUT model with personal innovativeness, anxiety, trust, and grievance redressal. [brad.ac.uk](#)
12. H Jouda, A Abu Jarad, T Obaid... - The 1st International ..., 2020 - papers.ssrn.com. Mobile banking adoption: decomposed theory of planned behavior with perceived trust. [ssrn.com](#)
13. Q Zhu, Z Lyu, Y Long, CJ Wachenheim - Socio-Economic Planning ..., 2022 - Elsevier. Adoption of mobile banking in rural China: Impact of information dissemination channel. [\[HTML\]](#)
14. HB Abdennebi - Digital Business, 2023 - Elsevier. M-banking adoption from the developing countries perspective: A mediated model. [sciencedirect.com](#)
15. S Loaba - Global Finance Journal, 2022 - Elsevier. The impact of mobile banking services on saving behavior in West Africa. [\[HTML\]](#)

16. JC Lee, X Chen - International Journal of Bank Marketing, 2022 - emerald.com. Exploring users' adoption intentions in the evolution of artificial intelligence mobile banking applications: the intelligent and anthropomorphic perspectives. [\[HTML\]](#)
17. AKNB Patel - 2022 - su-plus.strathmore.edu. Impact of covid-19 pandemic on the adoption of mobile banking Among micro and small enterprises in Nairobi central business district. [strathmore.edu](#)
18. WO Onyango, KW Wanyama, BW Singoro - Journal of International ..., 2021 - jibism.org. EFFECT OF MOBILE MONEY TRANSFER SERVICES AND FINANCIAL GROWTH OF SMALL AND MEDIUM ENTERPRISES IN BUSIA TOWN, KENYA. [jibism.org](#)
19. FK Micheni - 2021 - Kca University. Factors Affecting The Choice Of Mobile Lending Platforms Among Small And Medium Enterprises In Tharaka Nithi County In Kenya. [\[HTML\]](#)
20. JC Ho, CG Wu, CS Lee, TTT Pham - Technology in Society, 2020 - Elsevier. Factors affecting the behavioral intention to adopt mobile banking: An international comparison. [\[HTML\]](#)