

## FUTURE OF TRADITIONAL BANKING IN INDIA IN POST PANDEMIC ERA

Dr. Mrugakshi Rajhans Assistant Professor,  
Brihan Maharashtra College of Commerce (BMCC) Pune

### ABSTRACT

India is progressing on the track of digitization, and as banking is the basis of all financial transactions, digital banking is the step toward less cash and less paper and faster transactions. Faster and safer transactions promote the development of the economy. This paper touches the digitization of banking in India which shall begin the new era. Especially in the post pandemic period the customer inclination is towards the use of digitization. The cyber-crimes prove to be a hindrance in the process of online banking transactions. But stricter norms will resolve this scenario. RBI is trying to achieve its vision of less cash and less ATM. So this paper attempts to highlight the research conducted by various research consultants and also analyses the vision of RBI for 2025. Researcher believes that the review of various reports will lead towards identifying the future on traditional banking in India in today's post pandemic scenario.

**Keywords:** Digital banking, E-payments, UPI, payment system operators (PSO), Additional Factor Authentication (AFA), Central payment fraud information registry (CPFIR), Payment systems.

### Introduction

Banks are the integral part of any country. Banks act as a support system of every country. The evolution of the Indian banking can be stated in three different stages. The traditional banking which was introduced in independent banking, in the mid-eighties and early-nineties technology based banking system was introduced. This brought the ECS system, National Electronic Clearing Service (NECS) and the Regional Electronic Clearing Service (RECS) to India. The debit and the credit cards had already been introduced which was gaining importance and was used to replace cash. Later due to increase in banking transactions, digital banking was introduced in the late 1990s. Since 2006 the online mode of banks had started operating but the volume of paper clearance transactions was on a higher side and minimum card users operated, while the least of the public operated by using the retail electronic online mode. Though the value of money transactions through the physical mode were on the higher side than the early years of introduction. The people transacting through the online mode transacted with a very less value of money.

The traditional banking or the systematic banking is guided with strict rules and regulations which gives control of its customers' money to the banks. While modern banking is the banking done with the help of digital platforms by using lesser paper and making banking transactions online was introduced in India in 2006 when the RBI circular gave permission to business correspondents to increase their client coverage and financial inclusion apart from physical banking. Various concepts have been introduced in the India due to the advent of digital banking. In 2016 the National Payments Corporation of India (NPCI) introduced the UPI system for the Indian market. This enabled real time, person to merchant transactions, inter-bank and peer to peer transactions. Due to this instant money transfer through mobile device round the clock 24\*7 and 365 days. Shri. Shaktikant Das, Governor of RBI has recognized the growth of digital banking in India for increasing sustainable development and financial inclusion for the country. The 'Payment vision 2019-2021' of RBI states the empowerment of every Indian with safe secure convenient quick and affordable e-payment option. Increase in the adoption of fin-tech has proved to be the backbone the shift from traditional banks to digital banks. The covid-19 pandemic acted as a catalyst in this transformation among Indians. Their willingness to adopt the new technology is as high as 93% according to the surveys conducted. The digital banking platform in India was worth Rupees. 6,433.6 cr. and is expected to rise to Rs. 12,288 cr. by 2028.

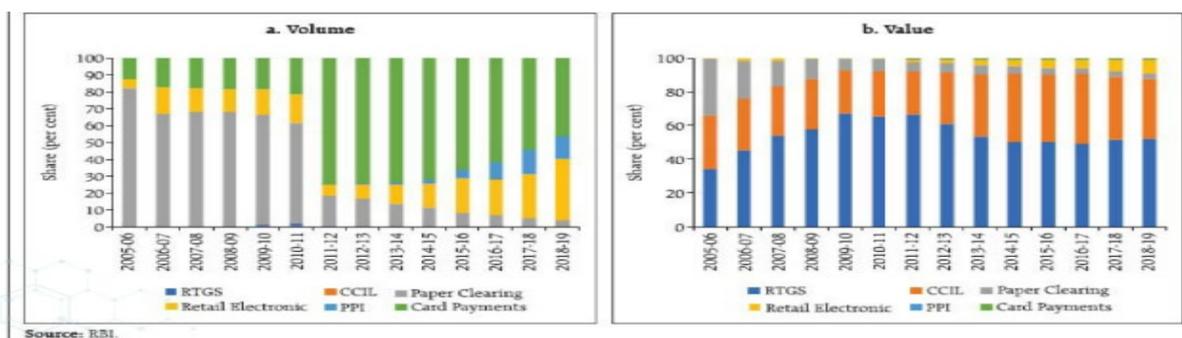
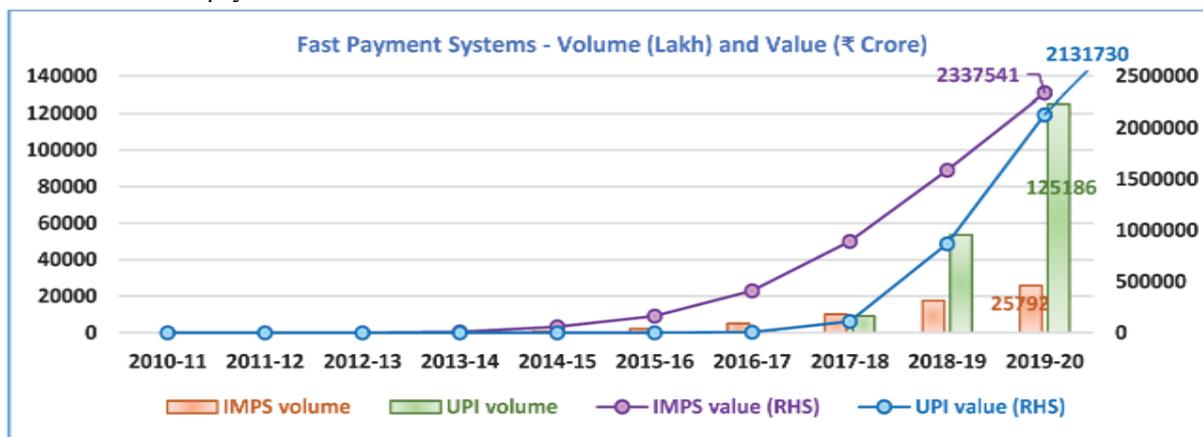


Figure 1 – Payment System Indicators

The digital era started giving a glimpse from a change in 2012 by users shifting their focus from paper clearance to card payments, but the value of the transactions through the online mode still remained on a lower side. But this era marked a change of reduction in the paper clearance and increase in the use of cards for making payments, simultaneously the use of online transactions had also increased, thus shifting of the trend to increase in online modes of payment.



Source: RBI Data

Figure 2 - Fast Payment System

The pandemic and the lockdown period proved as a catalyst for the online transactions. This period saw a considerable increase in the volume and value of online transactions, while the IMPS transactions have seen a decline in volume. The survey made by IMF on the use of online mode also states the rise in the pandemic period.

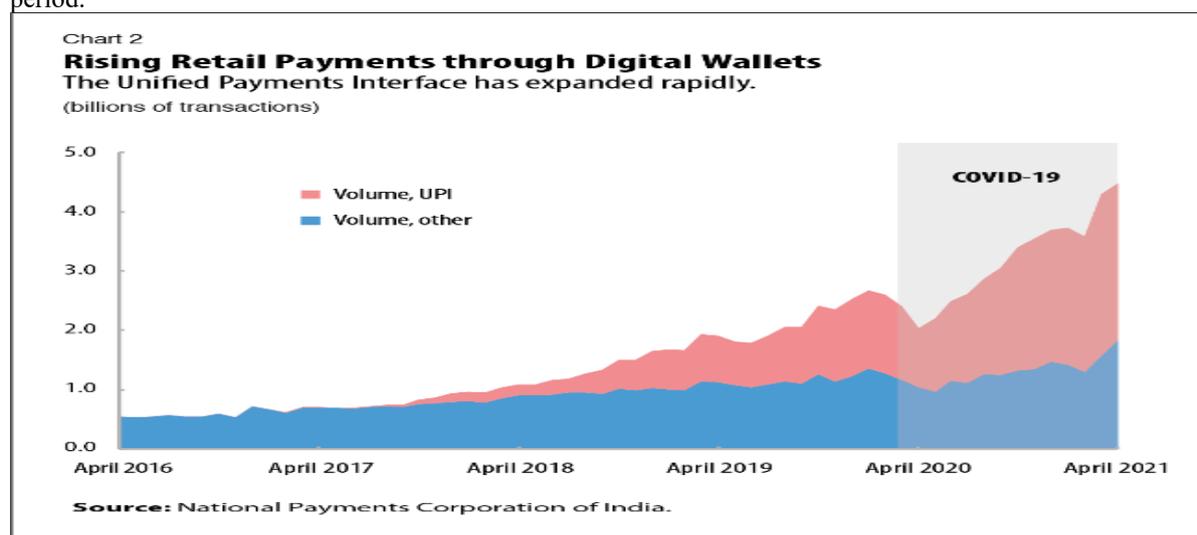


Figure 3 – Rising retail payments through digital wallets

**Objectives of Research**

1. To understand the changing role of traditional banking in India.
2. To learn the new concepts introduced in India in the digital banking era.
3. To understand the user’s choice among the traditional and digital banking.
4. Highlight the use of digital banking over traditional banking
5. To study the economic survey and RBI report for factually presenting the progress in digital banking services provided in India.
6. In light of the report given by NITI Aayog study the evolution of the digital banking.
7. To highlight the potential to change from traditional banking to digital banking.

**Literature Review**

According to (Sinha, 2012), the RBI bulletin gives information journey of the Indian banking industry. It is projected that the Indian GDP will grow and make the Indian banking sector the third largest in the world by 2025 considering its asset size. In order to reach this destiny, government of India laid its foundation with the

introduction of new revised reforms since 1991 which were in view to transform the banking sector. As a result of these revised reforms the financial performance of the banks improved and the overall profitability, net interest margins, and the returns received from assets and capital invested also improved. Considering the positive changes RBI in consent with the Government of India relaxed few of the norms. They also gave permissions to banks to issue general credit cards. It further gives information about need of financial inclusion felt by the banks for improving on their profitability. The technological advancement could be introduced by the bankers for decreasing the transaction cost. The need of the rural markets also could be understood and satisfied through financial inclusion. It was realised by the bankers that the use of technology could help in reducing the cost to a considerable level and thus could help in increasing their scope and profits. (Sinha, 2012)

The PWC report gives a detailed analysis of the need to change the traditional banking system in current times in order to stay relevant. Any industrial revolution or dynamism is based on three main pillars which are technology, customers and regulations and these factors are interconnected. In banking industry, technology made banks to extend their services through software solutions which helped them to develop mobile banking, cloud based platforms which asked for rigid infrastructure which turned out to be costly technology base. It is also stated that traditional banks have to revamp themselves in order to sustain the competition and even the regulatory bodies of this industry have to adapt to the changes and reinvent themselves. Banks have been performing its traditional functions are facing stiff competition by new entrants in the market for the different areas of banking. Notably the mobile operators to launch with traditional banking services, due to mobile banking it is creating attrition challenges to branch-based banking model, technology companies like Facebook, google applied for Electronic Money Institution license and offered services like digital wallet respectively. Hence in order to sustain with this increased competition bank have to adapt to these changes, they have to again rebuild their brand as during the period of crisis (Financial crisis in Europe) banks have lost the trust from their customers, hence to remain in the competition, they have to be customer centric which can lead to gain the customers' trust and loyalty. (PWC 2014)

The research report by Resurgent India summarises the use of technology by the banking industry in India which is proving as a game changer. Modernisation of the fundamental banking systems is the key to success of the Indian banks. Use of technologies like artificial intelligence, machine learning, cloud computing and data analytics has created an exemplar shift in the banking system. The pandemic and the lockdowns helped created a need to use the digital banking modes and also to shift the mentality of the consumers. The use of technologies has also helped the banks in launching new products and services which are more relevant to the changing lifestyle of its customers. The technologies like AI, deep learning will be utilised for decision making purpose. Bank will also have to move towards green and sustainable banking in which they will have to allocate the resources towards environment, social and governance objectives to meet international standards. It also stated about the transitions where first banks used to operate with bulky ledgers, which got replaced by Automatic Ledger Printing Machines and further was captured by computerised banking. The introduction of NEFT, RTGS, UPI etc. for the transfer for funds has helped in speeding up the transactions. Further use of technology will get more accuracy, safety and efficiency with speed to the banking transactions. Hence the banking sector of India shall play a prominent role in bring the dream of, 'India a \$ 5 trillion economies' (Resurgent India, 2022)

The Deloitte Report on Banking on the Future gives an in-depth information about Banks recently getting into partnership with fin-tech companies payments, KYC, constructive credit ratings etc. With the dawn of the fin-tech era especially in the banking sector the age old practices in the banking sector have to be modified to new innovative, technologically advanced and effective services. Cognitive engagement is helping the banks to upgrade their customer understanding for the personalized experience. These engagements are using interactive portals which are helping them to collect data for deeper understanding of their customers. The advanced technology and artificial learning used helps in identifying typical patterns of the customers form the real-time data available. This is helping the banks to improvise them personalize banking experience for their customers and also guide their customers with better offers which can help them to plan their finances whenever they are thinking to spend their money. (Deloitte, 2020)

Cognitive report gives information about the information derived from a survey which states that the technologically driven robotic processes can be successfully used for the repetitive processes. These Robotic Process Automations (RPA) can be used to handle various insurance sector companies to reduce their turnaround times of incoming calls. It has also helped the financial companies to remove complexities in manual handling of data. Cyber security has also added to the value chain of banks where they were able to remove inherent risks in digital wallet like phishing, fake KYC, cyber-attack, sniffing, application manipulation by authorized user etc. They were also able to launch EMV chip based cards which helped them to give

functionalities like card authentication, cardholder verification and transaction authorization. Another security measure was also added which was SMS based OTP process which not only utilised for online transactions but also implemented to change any KYC norms of customers like updating mobile number, change in address, pin number for cards and mobile application etc. which has also added another layer of security. (Cognizant, 2018)

The Analysis research paper on evolution of banking industry of India speaks about the evolution of banking from traditional to digital banking. The advantages of E-banking to the customers, - like making the payments from any part of the country, transferring money from one account to another, ensure secure transactions with help of OTP and other services like the E-statement, creating online FD etc. made available in an online mode are given. The bankers and other institutions also get advantages like providing the services at the door step, provide loans to institutions when it is needed and also provide foreign exchange currency. In the future AI can be utilized for KYC of the customers and also use AI based chat box for providing a value based customer service. The online banking platform provides banks, advantages like – increase in cashless transactions will decrease the cash circulated in the market, this will also increase the transparency and also help in reducing the documentation in the process. The challenges faced by the banking sector due to digitization – major problems are caused due to data breaches, financial illiteracy among large section of the population, cut throat competition among banks and bridging the gap between promises and performances which will lead to the withdrawal of accounts by the customers are discussed. (Mutha 2019),

The research paper on Digital banking in India gives information about the current digital era in the banking sector of India. The quantitative data of rise in the different modes of payment in last six years has which been presented, which clearly states that the payments done through digital mode have substantiality increased 2018-19 and the use of UPI almost doubled in the lock down period of 2020-21. The challenges for opting for a digital platform like – the language barrier, resistance to the change in working systems, cybercrimes etc. are also been discussed. It gives information about the use of digital banking products like RTGS, NEFT, UPI, Net banking etc. (Aryan, 2022)

The research paper on the adoption of digital banking in India gives information of the success of the ‘Digital India campaign’. The huge investment made in banking technologies is leading toward increase in digital banking. It states that if the customers get information and training of the usefulness of the digital banking modes, due to its convenience the customers preferences will shift towards digital banking. (Kaur 2021)

The study reveals the impact of digital banking on the customers and suggests that the banking industry can use their customer experiences and design a complain handling mechanism so that the efficient services offered by them are been stressed and their online presence is been highlighted. (Chauhan 2022)

The study of digital banking challenges stresses on the traditional banking habits of the customers, the transaction and technical difficulties faced by the bankers. In the digital era it is essential that the banks offer maximum transparency, so that the customers operate in the digital format with undoubted faith. Moreover, the technology is becoming user friendly, thus it will get blended in the customers’ lifestyle and become a necessary part of their businesses and daily routine transactions. (P.Revathi 2019)

Soon after 2010 the change in the banking environment was been felt. The increase in the use of cell phones and internet had widened the scope of use of technology even in the banking sector. Due to the increase in the expectations of the customers it was necessary for the banks to adopt E-banking. The study revealed that through financial awareness programs for the customers, user friendly technology, lesser charges and providing proper security could help in changing the customers’ views toward use of E-banking. (Khandelwal 2013)

The MSMEs in the rural sector play a prominent part in the economic development of India. The E-banking services which have been proved to be an effective and time saving mechanism needs to be utilized by the rural MSME sector. The pandemic and the lockdowns have given a realization to the owners of the MSMEs for making the shift towards E-banking. But it is essential that the banks must focus on customized plans for these rural MSMEs which shows them the benefits of the digital banking systems and they start relying upon these systems. (Ahmed 2023)

The issues focused are the understanding of customers’ perception towards digital and net banking. The understanding and awareness of e-wallets also have to be explored. The study states that the customers’ acceptance towards digital modes of banking mainly depends on the factors like convenience of use, security of their transactions and benefits received by them. (Tripathi 2017)

The study of strategies adopted by Paytm in India in relation with the Fintech adoption has been stated. Though it faced enormous competition it has effectively capitalized the sudden rise in digital banking users since 2019. (Singh 2020)

Demonetization helped it shifting the Indian mindset from physical to digital as they started looking towards technology for faster, safer and convenient mode of transaction. It also states that the M-wallets are becoming very popular among the users even in the emerging economy. (Sharma 2019)

### **The Future**

RBI in its published report of 'Payment Vision 2025' has stated that the payment system nurtures the economic development, increases the financial stability and also supports financial inclusion. Many goals stated in 'Payment vision 2021' had been achieved. Some of the milestones set were giving open access to centralized payment system, waiving off charges on RTGS and NEFT and increasing the use of legal entity identifier for large cross-border and domestic payments.

JAM (Jan Dhan, Aadhaar and Mobile) trinity introduced could help in introduction of the digital payments. Due to the increase in smart phone users the facility of digital payments driven through technology. The COVID period proved to be a catalyst as online payments helped in contactless payments so the UPI payments increased by 1200% in this period.

The internet banking increased by 99% while the total digital payments increased in transactions by 216% in the period of lockdown.

### **Payment Vision 2025**

To enforce India's position as a global leader in the digital payments domain RBI has kept a vision of less cash and less card till 2025. Due to digital advancements, touchless modes of payment and also due to the COVID pandemic India has seen a 50% rise in the mobile banking users, this includes the first time users of the digital platform. The payment vision 2025 of RBI plans to convert this change into an irreversible shift. For achieving this challenge convenient, tailor made and reliable payment solutions have to be given. Maximum use of digital payments will help in reducing the cost and time involved in remittances. This will further help in reducing the usage of cash and near cash substitutes. Thus the main aim of RBI in its vision 2025 is to improve the share of digital payments to GDP which will thus help in improved transparent transactions.

### **Major Goalposts to be achieved by RBI in its perspective plan of 2025**

AFA (Additional Factor Authentication) and 2FA (Two Factor Authentication) has always been prescribed by RBI but the OTP base authentication system has seen many kinds of cyber-crime cases in the recent past so the plan is to develop a geo-tag for the infrastructure and also for the transaction. For achieving this milestone, a context based IOT system has to be constructed, through which a global outreach of RTGS, NEFT, UPI and Ru Pay cards can be achieved.

The second plan is to broaden the scope and usage of LEI (legal entity identifier) which is a 20-digit alpha numeric code. This is an internationally recognized system. The plan is to migrate all the system messages routed through RBI to the ISO 20022 message standard. Due to this standardization, the SFMS (Structured Financial Messaging System) used and the InFiNet (Indian financial network) across the jurisdiction.

Further for expanding the interoperability through contactless transactions, the card payments and other banking payment modes like electronic banking transactions, cheques etc. to UPI. Attach 2FA for all the cross border card transactions.

Leveraging the ODR (Online dispute resolution) system is very essential for increasing the faith and confidence. Thus it is essential to extend the internal ombudsman scheme for all the PSOs. For creating a sustainable environment, innovations in the payment systems is essential. Further more efficient pay and process system can be attained through the use of digital currency. The first step in this direction was taken by RBI by launching the first Indian digital currency – CBDC in October 2022. In the first phase of the pilot study of CBDC has been launched with 4 different banks. The e₹ has also been introduced in the retail version which is same denominations of the coins and currency. Transactions of P2P & P2M will be allowed. Thus the domestic and cross border payment and settlement will be done in an efficient way.

For fraud monitoring and reporting Reserve Bank, has issued a mandate to the Regulated Entities (REs) to provide a mechanism for their mobile and internet banking application. Due to this customer will get an

identification for a transaction as fraudulent. This is for seamless and immediate notification to the issuer. This will further help in strengthening CPFIR (central payment fraud information registry). By promoting instant reporting and quick action will help in reducing and monitoring frauds. As banking settlements are available for 24\*7\*365 the trading hours in the market can be increased. For making the online payments bank account number and IFSC code is essential. RBI is planning to design an alternative for hassle free and safe transactions.

For online payments the payee name and IFSC code has to be provided, but funds are still credited to wrong beneficiaries. For reducing this hassle, a positive pay confirmation is essential. Safe use of digital payments modes is essential. By launching the eBAAT program (electronic Banking Awareness and Training) RBI is using mass media to promote the awareness of the safeguarding systems. Thus to spread news and reduce the increasing cyber-crimes RBI is shifting from passive communication mode to active mass media mode.

BNPL (Book Now Pay Later) has immersed as a payment mode like UPI & net banking. It is essential to have rules, regulations and guidelines for such a payment mode. RBI plans to examine this mode of payment and issue appropriate guidelines on this mode of payment.

Principles of financial markets infrastructure (PFMI) are international standards for the financial markets infrastructures such as the payment systems and depositories. The assessment of RTGS and NEFT is also done by PFMI. In recent times the Big Tech and FinTech companies have started giving the payment services. They are onboarding new companies and also customizing the payment experience. As these Tech companies have entered into the payment space, regulations for encompassing domestic companies.

Presently RBI has issued guidelines for domestic storage and payment system. But recently banks and non-banking financial corporations take care of the abroad transactions. Due to the geo-political situations, multi-currency transaction has increased. Thus it a need of hour to consider a ring-fence domestic payment system. This will help in judging the financial inclusion of India.

There is a rise is the use of digital payment modes by the consumers. But with the rise of digitization the digital payment frauds have increased. The cyber-crime cell has been taking efforts to reduce these crimes and recover the amounts lost due to frauds, but the rate of defrauded amounts has been high. So to provide a security cover to the customers a digital payment protection fund has been proposed by RBI. For helping the differently abled persons, RBI shall scrutinize the feasibility of implementing some specific policy initiatives which shall include standardization of most used icons and also provide text-to-voice features etc.

**Analysis**

The banking scenario of India clearly gives information about the shift from Traditional offline banking services to digitalized online banking services. Major Corporate researchers gives the same overview of the Indian banking, that digitization is the way ahead. The EY Megatrends report 2022 states that the fin-tech banking market has been boosted with many supporting factors like economic growth with rising disposable income, large unserved population, regulatory initiatives, enhanced internet, access to smartphones, and a fast-growing e-commerce marketplace. The IBM report states that the Indian banks are heavily investing in digital technologies to catch-up with leading global competitors. Greenwich Associates states that the banking industry will get converted into tech companies. It also provides 10 trends of banking till 2025.



Figure 4 – Banking: 10 trends for 2025 – Source Greenwich Associates

BCG report states that the traditional banking is coming to an end as consumers are quickly adapting to digital applications such as mobile banking and the customer support which is received through artificial intelligence (AI). In the past entire decade, the banking industry is going a seismic change due to the technological advancement.

The report presented by International Monetary Fund in 2021 about the digital infrastructure which is revolutionizing the financial service sector. The statistics stated in report indicates that about 90% of the population of India has signed up for digital ID i.e. Aadhaar and half of them have linked them to their bank accounts. The *Pradhan Mantri Jan Dhan Yojana* (PMJDY) which had provided bank accounts to 384 million people, due to this the banking system reached to the corners of India and so the banking went of a fast track system. As the mobile are been linked with bank accounts. Most of the mobiles are smart devices so the digital transactions have become smoother. The digital retail payments through UPI have increased since 2018 but the COVID pandemic era has shown a tremendous increase in volume of transactions.

### Conclusion

The entire study states that India is on the digital banking track. The scope of digitization in the banking sector has increased over times. The future of traditional banking seems to be very limited. The basic functions of banking will remain the same but instead of physical form it will increase in digital form. The digital banking which has reached the villages and towns of India will help to increase the digitization trend. The leap which has been attained in the digital banking platform during the COVID era has to be maintained and the reversal towards cash transaction has to be controlled. Stronger payment interfaces like UPI which are applicable in India and now hoping in other countries will make transactions easier. Further by making CPFIR rules stringent will make the transactions safer. The traditional format of banking might remain in some corporate transactions which involves huge amounts and also in those areas in which banking has been introduced recently. So India is on a new path of 'Digitized Banking' which will be quicker, safer and more profitable for individuals and corporates.

### References

- Ahmed S., Sur S., (2023), "Change in the uses pattern of digital banking services by Indian rural MSMEs during demonetization and Covid-19 pandemic related restrictions", Vilakshan – XIMB Journal of Management, Vol. 20 Issue 1
- Aryan P (2022), "Digital banking in India: An overview" - EPRA International Journal of Multidisciplinary Research (IJMR)
- Bank of Baroda (2022), "Growth of digital banking in India" Adapted from <https://www.bankofbaroda.in/banking-mantra/digital/articles/future-of-digital-banking-in-india-digital-transformation#title-id>
- BCG (2020), "The Sun is setting on traditional banking" Adapted from <https://www.bcg.com/publications/2020/bionic-banking-may-be-the-future-of-banking>
- BSFI (2022), "How Fintech is reshaping the future of traditional banking" Adapted from <https://bfsi.eletsonline.com/how-fintech-is-reshaping-the-future-of-traditional-banking/>
- Cognizant (2018), "The work ahead" Adapted from [https://www.cognizant.com/en\\_us/insights/documents/twa-banking-and-financial-services-codex2320.pdf](https://www.cognizant.com/en_us/insights/documents/twa-banking-and-financial-services-codex2320.pdf)
- Chauhan S., Akhtar A., Gupta A. (2022), "Customer experience in digital banking: a review and future research directions", International Journal of Quality and Service Sciences – Vol. 14 Issue 2
- Darda P (2019), "Industry Analysis Research Paper on Evolution of Banking Industry in India" International journal of innovative science and research technology.
- Deloitte (2020), "Banking on the future"- Adapted from <https://www2.deloitte.com/content/dam/Deloitte/in/Documents/financial-services/in-fs-deloitte-banking-colloquium-thoughtpaper-cii.pdf>
- Ernst & Young India (2022), "Shifting Growth Gears – pacing for the new wave in banking" Adapted from [https://assets.ey.com/content/dam/ey-sites/ey-com/en\\_in/topics/banking-and-capital-markets/ey-shifting-growth-gears-report-pacing-for-the-new-wave-in-banking.pdf?download](https://assets.ey.com/content/dam/ey-sites/ey-com/en_in/topics/banking-and-capital-markets/ey-shifting-growth-gears-report-pacing-for-the-new-wave-in-banking.pdf?download)
- Greenwich Associates (2016), "The Future of Banking" Adapted from <https://www.greenwich.com/file/25641/download?token=OMhl3eYA>
- IBM Institute for business value (2016), "Banking on India" Adapted from <https://www.imf.org/external/pubs/ft/fandd/2021/07/india-stack-financial-access-and-digital-inclusion.htm>
- IMF (2023), "Stacking up financial inclusion" Adapted from <https://www.imf.org/external/pubs/ft/fandd/2021/07/india-stack-financial-access-and-digital-inclusion.htm>

- Jain V (2022), “Digital Financial services in rural India” - International Research Journal of Engineering and Technology (IRJET)
- Kaur s., Ali L., Hassan K., Emran M. (2021), “Adoption of digital banking Channels in an emerging economy: exploring the role of in branch efforts”, Journal of Financial Services Marketing – Vol. 26 Issue 2
- Khandelwal S., (2013), “E-banking: Factors of Adoption in India”, International Journal of Management, Vol. 4 Issue 2
- Lenz R (2018), “Banking 2025: The Bank of the future”  
[https://www.researchgate.net/publication/303254495\\_Banking\\_2025-The\\_business\\_model\\_bank\\_in\\_the\\_future](https://www.researchgate.net/publication/303254495_Banking_2025-The_business_model_bank_in_the_future)
- Mutha A., Latpate S., Darda P., (2019), “Industry Analysis Research Paper on Evolution of Banking Industry in India”, International Journal of Innovative Science and Research Technology, Vol. 4 Issue 9
- NITI AAYOG (2022), “Digital Banks - A Proposal for Licensing & Regulatory Regime for India” Adapted from [https://www.niti.gov.in/sites/default/files/2022-07/DigitalBanking07202022\\_compressed.pdf](https://www.niti.gov.in/sites/default/files/2022-07/DigitalBanking07202022_compressed.pdf)
- PWC (2014), “The future shape of banking – time for reforming of banking and banks” Adapted from <https://www.pwc.com/im/en/publications/assets/pwc-the-future-shape-of-banking-v4.pdf>
- Pinki, Aryan, (2022), “Digital Banking in India: An Overview”, EPRA International Journal of Multidisciplinary Research”, Vol. 8 Issue 5
- Revathi P., (2019), “Digital Banking Challenges and Opportunities in India”, EPRA International Journal of Economic and Business Review”, Vol. 7 Issue – 12
- RBI (2022), “Payments Vision 2025” - Adapted from <https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/05SPBL110212.pdf>
- Resurgent India (2022), “Future of Indian Banking – The road ahead”-  
<https://www.resurgentindia.com/pdf/Future-of-Indian-Banking-The-Road-Ahead.pdf>
- Sharma G., Kulshreshtra K., (2019), “Mobile Wallet Adoption in India: An Analysis”, IUP Journal of Bank Management, Vol. 18 Issue 1
- Singh T., (2020) “Fintech Adoption: A critical appraisal of the strategies in India”, IUP Journal of Management Research”, Vol. 19 Issue 4
- Tripathi P., Rai P., (2017), “Customer Attitude and Adoption of Digital Banking”, LBS Journal of Management and Research, Vol 15, Issue 1