

THE IMPACT OF DIGITALIZATION ON FINANCIAL SERVICES - A COMPARATIVE ANALYSIS OF TRADITIONAL AND DIGITAL BANKING

Abstract

Digitalization offers several advantages over physical cash, such as improved traceability, convenience, and reduced risk of loss or damage. The growing popularity of peer-to-peer payment systems like PayPal and the emergence of crypto currencies like Bit coin are indeed indications of the increasing demand for digital cash. However, it is important to note that the transition to an all-digital cash economy is still a gradual process and is unlikely to happen in the near future. While digital banks and mobile wallets provide alternative payment options, physical cash continues to be widely used for various transactions, especially in certain situations or regions where digital infrastructure is not yet fully developed. The presence of ATMs plays a crucial role in providing access to physical cash, especially in areas where bank branches are not easily accessible. ATMs help banks reduce overhead costs by offering self-service options to customers for basic transactions like cash withdrawals, balance inquiries, and deposits. Furthermore, the use of physical cash remains important for certain segments of the population, such as individuals who prefer using cash for small-value transactions, those who are unbanked or under banked, or in situations where digital systems may encounter technical issues or disruptions. While the adoption of digital payment methods is growing, it is likely that a combination of digital and physical cash will coexist for the foreseeable future. The availability and accessibility of digital infrastructure, ongoing advancements in technology, regulatory frameworks, and consumer

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preferences will all play significant roles in shaping the future of cashless economies. In conclusion, digitalization has had a profound impact on financial services in India, transforming the way transactions are conducted, expanding financial access, enhancing customer experiences, and driving operational efficiencies. As technology continues to advance and digital adoption grows, the financial services landscape in India is likely to witness further innovation and evolution.

Keywords: Digitalization, Traditional and Digital Banking, Financial Services, Fintech.

I. INTRODUCTION

The impact of digitalization on financial services in India has been significant and transformative. The adoption of various digital technologies has revolutionized the way financial transactions are conducted, leading to increased efficiency, improved customer experiences, and financial inclusion. Here are some key areas where digitalization has had a significant impact:

1. **Digital Payments:** Digital payment services such as Unified Payments Interface (UPI), Bharat Interface for Money (BHIM), mobile money, and e-wallets have gained widespread popularity in India. These services have made it easier for individuals and businesses to make secure and instant payments, reducing reliance on cash transactions. The introduction of Aadhaar-enabled payment systems has further facilitated financial inclusion by enabling individuals without traditional banking access to participate in the digital economy.
2. **Financial Inclusion:** Digitalization has played a crucial role in promoting financial inclusion in India. By leveraging digital technologies, individuals and businesses in remote areas can access banking services, loans, insurance, and investment opportunities. The government's initiatives like Jan Dhan Yojana, which aims to provide a bank account for every household, have been supported by digital platforms, making it easier for people to open accounts and access financial services.
3. **Access to Capital:** Digitalization has democratized access to capital for entrepreneurs and small businesses. Online lending platforms and peer-to-peer lending networks have emerged, providing alternative sources of financing to individuals and businesses that may have difficulty accessing traditional bank loans. Digital platforms have streamlined the loan application process, reduced paperwork, and accelerated loan disbursement, enabling faster access to capital for those in need.
4. **Financial Planning and Investment:** Digital technologies have made financial planning and investment more accessible and convenient for individuals. Online investment platforms and robo-advisors provide personalized investment advice and automated portfolio management services at a lower cost. Mobile apps and online platforms enable users to monitor their investments, access real-time market information, and execute trades, empowering individuals to take control of their financial future.
5. **Data Integrity and Security:** As financial transactions increasingly move into the digital realm, ensuring data integrity, authentication, and security has become paramount. Technologies such as encryption, biometrics, and multi-factor authentication are being employed to protect sensitive financial information. The implementation of regulations like the Reserve Bank of India's guidelines on cyber security and data protection aims to safeguard customer data and build trust in digital financial services.
6. **Operational Efficiency and Cost Savings:** Digitalization has streamlined processes and reduced operational costs for financial service providers. Automated systems for customer onboarding, KYC (Know Your Customer) verification, and account management have made these processes faster and more efficient. The use of artificial

intelligence, machine learning, and big data analytics has enabled better risk assessment, fraud detection, and customer profiling, leading to improved operational efficiencies and cost savings.

II. REVIEW OF LITERATURE

In a study conducted by Scott, Van Reenen, and Zachariadis (2021), the authors examine the effects of adopting digital finance on bank performance. Their analysis covers 6,848 banks in 29 countries across Europe and the United States. The study reveals several key findings: Adoption of digital finance generally leads to long-term improvements in bank productivity. The impact on profitability is more significant for small banks compared to large banks. There are notable network effects, indicating that the overall performance of the banking sector is influenced by the adoption of digital finance. Furthermore, Manyika et al. (2020) suggest that digital finance benefits economies by facilitating increased overall spending, which generates higher tax revenue from the expanded volume of financial services. It also helps reduce the reliance on physical cash, which is beneficial for financial and monetary system regulators. Particularly, it aids in combating high inflation levels in developing and underserved countries (GPFI, 2019). Digital financial inclusion plays a crucial role in improving the well-being of individuals and businesses, as stated by CGAP (2018). By providing a reliable digital platform to access funds in bank accounts, it enables individuals and businesses to engage in financial services. The underlying rationale is that a significant portion of the unbanked population owns or has access to a mobile phone, making the provision of financial services via mobile devices an effective way to enhance financial access (World Bank, 2018). Despite the benefits of digital financial services, the International Telecommunication Union (ITU, 2017) reports that many developing countries still face challenges in achieving widespread acceptance of digital payments by merchants. Furthermore, according to Disease (2018), even though consumers may have the necessary credentials to access digital financial systems, they are not active users of digital channels in many emerging markets due to a lack of consumer trust and confidence in these new channels. ADB (2019) highlights that low levels of financial literacy and awareness of digital finance channels can hinder customers' engagement with digital platforms for basic financial transactions. Additionally, the increased use of digital technologies has resulted in a rise in cyberattacks, posing significant risks to the security and privacy of users' data on digital channels. Regulators' awareness of these cyber threats may lead to a reevaluation of the trade-off between efficiency and security in financial services (Caruana, 2018). Overall, the research and evidence indicate that the adoption of digital finance can have positive impacts on bank performance, financial inclusion, and overall economic development. However, challenges related to trust, awareness, and security must be addressed to fully harness the potential benefits of digital financial services.

III. OBJECTIVES

- To understand the present status of digitalization in financial services in India
- To know the impact of digitalization on financial services in India

IV. PROBLEM STATEMENT

India has presented some other time in money related organizations by embracing digitalization. It simplified our lives, trouble free, and altogether less jumbled. Demonetization by the public authority gave it the fillip it required. In this exceptional circumstance, this article is an undertaking to appreciate how much headway India has made in taking on this new stage for financial trades. Digitalization can be seen as a two-sided bargain. On one hand, it simplifies our life by giving us freedom from the slow and much of the time complex manual cycles, yet of course it presents itself as a demon through various electronic cheats and deceives which achieved people losing their lives' hold finances in the ownership of people having vindictive assumptions. Regardless, particularly like anything other turn of events, this can be used both as an administration help part and as a weapon to make people channel. India anyway drowsy in taking on digitalization, has started moving faster in uncovering some true certainty around here. It's vital for sort out the progress India has made in this point.

V. DIGITALIZATION OF FINANCIAL SERVICES

Digitalization is the usage of electronic developments to change a strategy and give new pay and merits making important entryways. It is the most normal approach to moving to a mechanized business.

1. **Benefits of Digitalization – Financial Institutions Perspective:** Business Efficiency: Other than the way that modernized stages further foster correspondence with clients and convey their necessities even more quickly, they also give methods to making inside abilities more capable. While banks have been at the front line of mechanized development at the customer's end for quite a while, they have not embraced all of the benefits of middleware to accelerate effectiveness.
 - **Cost Save reserves:** One of the keys for associations overseeing financial organizations is to lessen costs through automated applications that override abundance actual work. The standard money related trade process is costly, slow, and leaned to human mix-ups, as demonstrated by McKinsey and Company. Contingent upon people and paper similarly consumes office room, which runs up energy and limit costs. Electronic stages can decrease costs through the helpful energies of extra emotional data and speedier response to exhibit changes.
 - **Extended Precision:** Traditional firms overseeing financial organizations that rely essentially upon paper taking care of can have a misstep speed of up to 40%, which requires redoing. Joined with the shortfall of IT fuse among branch and managerial focus staff, this issue diminishes business capability. Chipping away at the affirmation cooperation, and doing IT plans with business programming, and it is less complex to incite more exact bookkeeping. Money related precision is critical for firms to concur with informal regulations.
 - **Further created Force:** Automated game plans help with directing advancing records, allowing associations to show up at greater business areas and build closer relationship with taught clients. CRM stages can follow client history and give

expedient induction to email and various kinds of internet based correspondence. It's suitable for executing client rewards programs that can additionally foster dedication and satisfaction.

- **More important Deftness:** The usage of motorization can speed up both outside and internal cycles, the two of which can additionally foster buyer dependability. Following the breakdown of money related business areas in 2008, an extended emphasis was endangered by the chiefs. Instead of affiliations utilizing and getting ready gamble the chief's specialists, it's achievable for the gamble the board programming to recognize and answer market changes more quickly than even seasoned professionals.
- **Overhauled Security:** All associations gigantic or little face a creating number of computerized perils that can hurt reputations. A couple of financial affiliations and tech firms have been hacked in the new past. Associations can benefit from extra layers of security to protect data.

2. Benefits of Digitalization – Customer Perspective:

- **Convenience:** The effortlessness of coordinating financial organizations is logical the best motivation to go high level. People at absolutely no point in the future need to convey boatloads of cash, plastic cards, or even line up for ATM withdrawals. It's similarly a safer and less difficult spending decision during traveling.
- **Limits:** The new waiver of organization charges on card trades is one of the inspirations given by the public power. Similarly, getting a good deal on rail tickets, turnpike cost, or securing of insurance can help with diminishing costs. Add to these the cashback offers and cutoff points introduced by adaptable wallets like Paytm, as well as the award spotlights and relentlessness benefits on existing credit and store cards, and it could help with additional fostering people's pay indistinctly.
- **Following Spends:** Accepting that all trades are on record, it will be incredibly basic for people to screen their spending. It will in like manner help while archiving individual cost structures and, in case of an assessment, people will track down it easy to get a handle on their spending's. It will goodly influence arranging.
- **Monetary arrangement discipline:** The put down record will help you with watching your spending and this will achieve better preparation. "Various applications and instruments will help people with examining their spending models and throw incredible pieces of information north of quite a long while.
- **Lower risk:** At whatever point taken, it is easy to hinder a Mastercard or convenient wallet from a good ways, yet it's challenging to get cash back. In that sense, the mechanized decision offers limited security. This is especially clear while traveling, especially abroad, where deficiency of cash can cause mind boggling trouble. State of the art advancements like usage of biometric ID (fingerprints, eye inspect, etc) can be unbelievably difficult to copy, settling on it an extraordinarily safeguarded decision.

- **Little gains:** Another notwithstanding be that people can pay the particular total without obsessing about not having change or getting it back from retailers.

VI. GROWTH OF DIGITAL TRANSACTIONS IN INDIA

The data released by the Reserve Bank of India (RBI) indicates a significant increase in digital transactions in India, crossing the 1 billion mark in December 2019. The driving factors behind this surge in digital transactions include the demonetization decision in November 2016 and the widespread use of services like UPI and e-wallets. The RBI data highlights the growth of UPI, which saw a month-on-month increase of 40 percent, reaching nearly 145.5 million transactions in December. IMPS also experienced a 10 percent growth, with nearly 98 million transactions in the same period. Traditional card transactions, both debit and credit, increased by 8 percent, reaching around 264 million transactions in December. However, despite the growth of digital transactions, cash dependency among Indians remains relatively high. The lack of adequate payment acceptance infrastructure in rural areas and small towns is considered one of the reasons for this continued reliance on cash. Industry experts suggest that the doubling of card payment terminals in the past year has not been sufficient to address this issue. It's important to note that although digital transactions are increasing, cash circulation has also been on the rise. The preference for cash payments is indicated by the increase in cash in circulation from about Rs 13.2 lakh crore in April 2023 to Rs 16.3 lakh crore in January 2022. The JAM trinity, consisting of Jan Dhan, Aadhaar, and Mobile, is expected to drive digital transactions in rural India, offering an alternative mode of payment for those without credit or debit cards. These technologies, combined with the promotion of digital financial services, aim to further accelerate the transition to a digital economy in India. Overall, while there has been significant progress in digital transactions in India, there are still challenges to overcome, including improving payment acceptance infrastructure and addressing the preference for cash payments. Continued efforts in these areas will be crucial for further advancing the adoption of digital financial services in the country.

Month (2022)	No. of digital transactions*	No. of POS terminals	No. of UPI transactions	No. of PPI transactions	No. of credit, debit card transactions
April	908.64	2.167	9.14	89.32	234.13
May	934.56	2.221	9.18	92.15	223.45
June	921.26	2.342	10.13	85.34	237.45
July	937.84	2.764	12.78	89.16	276.23
August	969.32	2.875	16.86	89.97	278.54
September	965.12	2.987	30.86	89.23	267.67
October	1065.23	2.984	76.89	92.14	255.34
November	1142.26	2.654	105.89	94.34	288.23
December	1199.78	2.998	146.47	99.56	269.34

Source: RBI, NPCI, * Includes RBI's provisional figures along with Aadhar Enabled Payment System numbers from NPCI but does not include electronic toll payments and other transactions for which data are not publicly available (*All numbers in millions*)

VII. CONCLUSION

The future growth of digital payments in India is expected to continue, with a particular focus on expanding adoption in the rural economy and the small and medium-sized enterprises (SME) sector. The government can play a crucial role in driving this growth by introducing incentives and programs to encourage digital payments. Incentives such as discounts on digital GST payments can incentivize businesses to adopt digital payment methods. Additionally, the government's establishment of accelerator programs can provide support and resources to SMEs to facilitate their transition to digital payments. Specific use cases, such as business-to-business (B2B) payments, Electronic Clearance Service (ECS) mandates, equated monthly installments (EMIs), and person-to-government (P2G) payments in smart cities, are expected to contribute to the increase in transaction volumes. These use cases address specific needs and provide convenient and efficient payment solutions for various transactions. Overall, these initiatives and developments are likely to have a positive impact on the size and volume of digital transactions in the future. As digital payment infrastructure and acceptance grow, more individuals and businesses will embrace digital payment methods, further driving the shift towards a cashless economy in India.

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