



SOCIAL TRANSFORMATION THROUGH DIGITAL FINANCE: OPPORTUNITIES AND CHALLENGES

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Abstract

Digital finance through Digital Technology has revolutionized global financial systems and promoted social inclusion and social transformation on a wide scale. In India, the rapid diffusion of digital technology has fundamentally transformed the financial services landscape, offering potential economic growth opportunities and empowering marginalized segments of society. Various forms of digital finance, including mobile banking, electronic payments, and online lending, have emerged to address barriers to financial inclusion, particularly prevalent in developing countries like India, where a substantial portion of the population remains unbanked or under banked. Furthermore, digital finance holds promise in transforming society by granting individuals greater autonomy over their finances, improving risk management, and fostering economic opportunities. For Digital Finance, the Public Financial Management System (PFMS) plays a pivotal role in India as a robust platform for managing public funds, budgeting, and monitoring expenditures across various governmental levels. The PFMS enhances transparency, accountability, and operational efficiency through its real-time monitoring and reporting mechanisms, mitigating fraud and mismanagement risks. However, despite the manifold advantages of digital finance, challenges persist, such as limited access to smartphones and internet connectivity, low awareness in remote areas, digital financial illiteracy, and concerns regarding the security of personal information. In light of these challenges, there is a pressing need to investigate the role of digital finance adoption in promoting equitable access to financial services. It also critically examines the intricate relationship between digital finance, societal dynamics, and regulatory frameworks, focusing on India's Public Financial Management System (PFMS). This study adopts a descriptive and exploratory approach to achieve its objectives. In conclusion, the paper underscores the importance of fostering inclusive and sustainable digital financial ecosystems in India.

Keywords: *Public Financial Management System (PFMS), Financial Inclusion, Digital Finance.*

Introduction

Digital finance, in the modern world, is a transforming light that is upending the conventions of the traditional financial system and bringing about a major social revolution. With the introduction of digital technologies, financial services are now accessible, used, and understood in a completely new way. It has the potential to democratize financial inclusion and empower excluded groups worldwide. In India, around 40% of individuals do not have access to formal financial services, which is a crucial cause of poverty and a drag on the national economy (Khuntia, 2014). So, with the rise of digital finance and the widespread use of mobile banking apps, the boundaries of financial transactions have changed, resulting in an integrated ecosystem that cuts across social and geographic divides, offering digital financial services to underprivileged and financially excluded people, as well as utilizing mobile phones and other digital devices to expand access to these services forming a part of digital financial inclusion (Ozili, 2018). Fundamentally, digital finance represents a paradigm shift in technology and socioeconomics, with far-reaching effects on individual empowerment and social dynamics. It can elevate millions of people from the periphery of financial marginalization and give them control over their financial futures by facilitating easy access to financial services via digital



channels. It acts as a channel for financial empowerment and literacy, empowering people to make wise financial and investment decisions that end the cycle of poverty and promote economic resilience. Digital finance creates a culture of innovation by democratizing financial access and encouraging entrepreneurship, opening up new paths for economic growth and social mobility. Furthermore, it gives marginalized groups—such as women, young people, and those living in rural areas—the means to actively engage in the formal financial sector of the economy (Ozili, 2022). Hence, in light of the growing importance of digital finance services, this paper explores how adopting digital finance can improve fair access to financial services. Additionally, it will examine the legal frameworks, sociocultural issues impacting digital finance, with a particular emphasis on the Public Financial Management System (PFMS) in India. This study uses an exploratory and descriptive methodology to accomplish its goals. Ultimately, the study highlights how important it is to support inclusive and long-lasting digital financial ecosystems in India.

Financial Inclusion and Forms of Digital Finance

Financial inclusion guarantees that vulnerable groups, such as lower-income and weaker parts, have cheap access to financial services and timely and sufficient credit when needed (Rangarajan, 2008). Also, Digital access (through mobile, internet, etc.) to formal financial services by the excluded population can be called digital financial inclusion (Ghosh & Chaudhury, 2020).

Forms of digital finance

Mobile Banking: Through their mobile phones or other portable devices, people can conduct banking transactions and obtain financial services. It includes using mobile applications or SMS-based services to monitor account balances, transfer money, pay bills, and make deposits or withdrawals.

Digital Payments: Digital payment systems let individuals and companies conduct transactions online without actual cash. This comprises digital payment systems like Unified Payments Interface (UPI), Bharat Bill Payment System (BBPS), and National Electronic Funds Transfer (NEFT), as well as techniques like electronic funds transfer (EFT), online banking transfers, and mobile wallets.

Digital lending: These platforms use technology to offer credit and loan products to people and companies. They frequently use alternative data sources and algorithms for credit underwriting and evaluation. These platforms target underprivileged populations by providing fast and easy access to credit while eschewing traditional banking channels.

Digital Insurance: These services let people buy and manage insurance policies online. They cover various risks, including health, life, property, and auto insurance. Compared to traditional insurance channels, these services offer more accessibility, flexibility, and transparency while enabling consumers to manage claims and personalize their coverage digitally.

Examples demonstrating the adoption of digital finance in India:

Aadhar Enabled Payment System (AEPS) and Jan Dhan Yojana

To promote financial inclusion, the Indian government introduced the Jan Dhan Yojana in 2014, giving every household in the country access to banking services. This initiative's integration of financial services with India's biometric identity system, Aadhaar, via the Aadhaar Enabled Payment System was one of its main features. By integrating bank accounts and UID numbers, people could use their biometric authentication at micro-ATMs and banking correspondents to access financial services like deposits, cash withdrawals, and balance inquiries. Especially in rural and isolated areas where traditional banking infrastructure is lacking, integrating Aadhaar and AEPS has been essential in providing financial access to millions of underbanked and unbanked individuals in India.



Growth of UPI and Digital Payments

The National Payments Corporation of India (NPCI) introduced the Unified Payments Interface (UPI) in 2016, transforming digital payments in India by offering a unified platform for quick, real-time transfers across bank accounts. Through mobile apps, UPI allowed users to easily make peer-to-peer, merchant, bill, and money transfers without providing bank account information or utilizing more conventional payment methods like cash or cards. As a result of UPI's widespread adoption, digital payments have grown dramatically in India, with the volume and value of transactions rising at an exponential rate annually. The increase in digital payments has made it easier for people to participate in the financial system by giving everyone, even those living in remote places, access to inexpensive, safe, and convenient payment options that reduce their reliance on transactions through cash and informal financial services.

Digital India

Digital India is a comprehensive effort introduced in 2015 to change India into a knowledge economy and technology-enabled society. Digital infrastructure, digital literacy, digital governance, and digital service delivery are some of the program's main elements. The introduction of digital payment systems like UPI, BHIM (Bharat Interface for Money), and the National Electronic Toll Collection (NETC) program are just a few of the measures that have been put in place as part of Digital India to advance digital finance and improve financial inclusion.

Direct Benefit Transfer

The Direct Benefit Transfer (DBT) program aims to deposit government grants and welfare payments straight into the recipients' bank accounts. DBT strives to eradicate leakages and inefficiencies in welfare delivery systems, guaranteeing that benefits reach intended users promptly and transparently by utilizing digital payment systems and Aadhaar-based identification. By encouraging people to register bank accounts and engage in official financial systems to obtain government benefits, DBT advances financial inclusion.

Atal Pension Yojana

The government-backed Atal Pension Yojana (APY) is a pension program aimed at employees in the unorganized sector. When they reach retirement age, people can contribute to a pension account under APY and get a guaranteed pension amount. The program seeks to support long-term savings and financial inclusion by offering social protection and financial stability to those working in the unorganized sector.

Review of Literature

Chakrabarty (2008) The author states that several reasons, such as lousy product quality, inflexibility, inconvenience, high transaction costs, and a lack of information about financial products, limit access to financial products. He says that business models must be developed to be profitable in the long term and self-sufficient initially. The issue of last-mile connection is one of the main obstacles to financial inclusion. Due to its high operating costs, the Business Correspondents/Facilitator (BC/BF) model may not be economically viable for banks or clients; however, this issue can be solved with the proper and efficient use of technology.

Deshwal (2015) According to the author, consumers will only utilize mobile banking if they feel comfortable using it, believe it to be helpful, and believe it to be inexpensive. A total of 350 respondents participated in the study, of whom 78% used mobile banking and 33% did not.



Peric (2015) According to the author, re-engineering financial services can result in a 90% reduction in transaction costs through the combination of upcoming digital payment technologies and mobile phone technology. The author refers to this as "digital financial inclusion." If this is successful, it will go a long way toward bringing the underprivileged and rural residents under the financial inclusion program.

Singh (2017) The author says that technology significantly makes financial services more accessible to a broader range of people. However, it is hampered by poor last-mile connectivity, low technological and financial literacy, and low adoption of new technologies.

Kumar & Ratan (2017) state that inclusive and sustainable development is made possible by financial inclusion. As the most widely used, promising, and appropriate technology for financial inclusion, the mobile phone has emerged as the leader. However, it could be seen that most individuals still favour traditional banking methods over this financial technology upgrade. The author examined several variables that affect the adoption and acceptance of mobile banking while also attempting to examine some drawbacks. He further concluded that the characteristics that influence the adoption of mobile banking are compatibility, trialability, complexity, and perceived risk. Further, several issues with mobile banking adoption need to be resolved to fully realize the potential of mobile banking for financial inclusion.

Ozili (2018) The author proposed a framework to show how banks, fintech, and the government contribute to digital finance and financial inclusion. Achieving financial inclusion through digital finance requires full-scale financial data inclusion, which connects every member of the population's biometric data to their bank accounts. This can serve two purposes: tracking the income and demographics of consumers of digital financial services and verifying and tracking financial transactions conducted digitally. The population's capacity and willingness to engage in the digital realm is an essential requirement for achieving high financial inclusion.

Farzana (2019) According to the author, there is great potential for digital financial services to offer low-income individuals in developing nations a variety of safe, convenient, and reasonably priced banking services. By using digital banking to promote financial inclusion, the digital India effort can facilitate communication across disparate segments of the population. Mobility has a far wider influence than just making online purchases easier when you are on the road. In his study, the author uses digital technology to show how financial inclusion is fuelled by digital financial services and how financial health is being enhanced. He concluded that people must learn the fundamentals of digital finance services, particularly in rural and semi-urban areas.

Vijayan (2019) The author says that it is evident that nations using technology for the good of their people have seen a dramatic transformation in every area, which spurs GDP expansion and raises both the national and per capita income. He added that technology, a vital component of the "Digital India Programme," was the driving factor behind digitalization. India has become one of the nations where the government has launched this development program to promote economic growth and give young people jobs. India has begun a digital transition, but the full effects will take time to manifest. Thanks to this effort, India will accomplish the Sustainable Development Goals of the United Nations by 2030. This study contributes to our understanding of the economic impact of Digital India, the extent to which its aims have been achieved, and the creation of a model for achieving the Sustainable Development Goals using the foundations of Digital India.



Durai & G. (2019) The authors examined how digital finance affects financial inclusion. To determine the critical distinction between digital finance and financial inclusion, they used a Way ANOVA. They compared digital finance technologies such as credit cards, debit cards, mobile wallets, internet banking, and mobile banking. Convenience, adaptability, affordability, security, user-friendliness, correct timing, low service charge, online monthly statement, speedy financial decision-making, simple interbank account facility, internet access, and usability were among the criteria they examined. Digital financial inclusion is negatively impacted by affordability, security, and adaptability, while favorable factors include usability, convenience, correct timing, easy interbank account functionality, low service charge, and accurate timing.

Kanungo & Gupta (2021) According to the authors, through the digitalization of traditional banking, inclusion can provide chances for fair employment, equitable education, inexpensive healthcare, and income parity to marginalized and disenfranchised in society. The authors examined the impact of digitalization-driven financial inclusion on Indian public sector banks and the marginalized community within Indian society. Specifically, they looked at the degree to which overall socio-economic well-being has been attained. Their research indicates that while banks have tried to improve financial penetration, digitalization has not significantly increased financial inclusion. However, there have been considerable advancements in banks' financials. The results provide a range of policy recommendations for the Indian central bank and public banks.

Malladi et.al. (2021) According to the author, India's financial inclusion journey has taken extraordinary strides over the last ten years, driven in part by the government's Digital India Movement and Pradhan Mantri Jan Dhan Yojana. The unbanked population is gradually gaining access to information and communication technology, aiding their entry into the banking industry. Digital technologies are increasing usage and improving residents' quality of life. This paper explored the current state of financial inclusion, future directions, and strategies for utilizing digital technologies to create an inclusive society. Further, they discussed the obstacles that still need to be overcome to create an inclusive society. They also offered suggestions for resolving the major issues. They stressed the significance of cooperation and open communication amongst all the major players to create an inclusive ecosystem.

Asif & et al. (2023) In their article, the author aimed to find out how digital financial services and fintech affect financial inclusion in India. The author analyzed that fintech companies have significantly promoted financial inclusion in this country, particularly for the middle class. The paper's findings might be helpful for the policymakers striving to integrate all citizens into a well-organized financial system.

Research Objectives

The study explores the opportunities digital finance presents in driving social transformation, including its potential to empower marginalized communities, foster economic growth, and enhance financial inclusion. Additionally, it seeks to identify the challenges associated with adopting digital finance, such as issues related to the digital divide, data privacy, cyber security threats, and regulatory compliance. Moreover, the study aims to examine the role of the Public Financial Management System (PFMS) in regulating digital finance initiatives and ensuring transparency and accountability in fund management. Finally, the research proposes practical solutions for addressing these challenges and maximizing the benefits of digital finance while ensuring equitable access and safeguarding against potential risks.



Research Methodology

Descriptive and exploratory research methodologies have been used to help the study. In descriptive research, we use secondary sources to gather data and provide a detailed description of any phenomenon. Here, we examine how digital finance has positively or negatively impacted society. In exploratory research, we look for solutions to problems, and some corrective actions are recommended. Secondary data has been gathered from various sources, including government publications, research papers, articles, and journals.

Findings Based On Secondary Literature

The results show that digital banking offers a plethora of potential to propel social development. First, by giving marginalized populations access to formal financial services that were previously unattainable for them because of socioeconomic or geographic limitations, digital banking emerges as a potent instrument for empowering these people. People from underprivileged communities may now manage their finances, access loans, and engage in the formal economy through mobile banking, digital payments, and fintech solutions, which increases their economic opportunities and social mobility. Second, it has been discovered that digital finance promotes innovation and entrepreneurship, promoting economic growth. Startups and small- to medium-sized businesses (SMEs) can use digital financial platforms to expand into new markets, obtain capital, and improve operational efficiency, all of which can create jobs and economic growth. Finally, digital finance significantly improves financial inclusion by giving previously unbanked or underbanked groups greater access to banking services. People can perform financial transactions safely and affordably by using services like digital wallets and mobile banking, which lessens their dependency on currency and established banking infrastructure.

A shift in digital payment habits has been observed globally due to social distancing norms during (Alber & Dabour, 2020; Jonker et al., 2020) and government relief measures (Toh & Tran, 2020) aimed at lessening the pandemic's adverse effects on household consumption spending (Liu et al., 2020). The National Payments Corporation of India (NPCI, 2020) survey data is empirically analyzed to provide valuable insights into the digital payment choices made by families during the pandemic. About one-third of the families polled during the lockdown made their first digital transaction. Families who had previously used digital payments but had stopped using them due to issues like fraud, overspending, lack of internet access, or other issues were more likely to start using them again during the pandemic. First-time adoption was influenced by the online payment mode awareness and a certain level of formal education, although it was at low levels. Long-term beneficiaries of welfare support were more likely to go digital to access their entitlements promptly. The younger and middle-aged population preferred UPI and mobile wallets, while people over 60 preferred cards. Heads of households without a smartphone were also likely to switch if they had a family member who had a smartphone. There is proof that these digitally empowered family members are replacing bank mitras to facilitate the adoption of digital payments (RBI, 2022).

Deepening and Extending the Digital Payments Environment: All state-level bankers' committees and union territory-level bankers' committees (SLBCs/UTLBCs) were advised to identify a district within their respective states or territories and assign it to a bank with a significant presence in order to expand and deepen the nation's digital payments ecosystem. The bank would then work to make the district entirely digitally enabled, enabling every resident to make and receive payments online quickly, safely, affordable, and conveniently. 182 districts have been designated 100% digitally enabled as of March 31, 2023 (42 districts under the pilot program and 140 districts under the scaled-



up program). As of March 31, 2023, 87 of these 182 districts (26 under pilot and 61 under scaled-up program) have 100% digital connectivity (RBI, 2023). Additionally, programs like the Pradhan Mantri Jan Dhan Yojana (PMJDY), which has opened bank accounts for over 52.08 crore beneficiaries, have been essential in advancing financial inclusion. A large number of these accounts are accessed and used online.

The aforementioned results highlight the revolutionary capacity of digital finance to foster equitable and enduring societal progress. However, still, challenges persist that hinder the goal of financial inclusiveness through the adoption of digital financial services. These are:

The rural population's general mistrust has been caused by a lack of financial literacy and knowledge of financial cybercrimes, which has decreased digital penetration (Rahmi, 2021). A distinct split exists in digital literacy: whereas some individuals are tech-savvy and require no assistance in understanding services, most people living in rural and semi-urban areas struggle to comprehend and effectively use technology (Marco, 2018). Further Personally Identifiable Information (PII) regulations are not strictly adhered to, a large amount of collected data is readily accessible to different stakeholders, raising serious concerns about data privacy. Some banking agents steal biometric information to duplicate it later for fraud and sometimes give a manual receipt during a transaction rather than a computerized one. Due to a lack of mobile devices (more than 310 million people still do not own a smartphone or even a simple feature phone) or because financial institutions are not sending these messages for small-value transactions, customers are not receiving SMS messages related to account transactions. As a result, there is now more reliance on local agents. And there are insufficient channels for obtaining digital and online loans from reliable financial organizations. Additionally, technology systems and artefacts at the last mile are susceptible to exposure and misuse. As a result, there are several frauds taking place locally. In 2017, around 22% of Banking Correspondents (BC) agents encountered fraud, a significant rise from 2% in 2015. (Mishra & Gupta, 2018). Also because of the prevalence of high-interest for small-time lenders in rural areas, credit availability is still a challenge. Government programs still need to reach more rural areas to improve credit availability (Malladi, 2020).

Regulation of Digital Finance through PFMS in India

Public Financial Management System (PFMS) is a web-based online software application developed and implemented by the Controller General of Accounts (CGA), Department of Expenditure, Ministry of Finance, Government of India. It was established in 2009 to monitor funds disbursed under all Government of India programs and provide real-time reporting of expenditures at all stages of program execution. The scope was then expanded to include direct beneficiary payments under all Schemes. It has been planned that PFMS will gradually be used to digitize accounts. Starting with payments from Pay & Accounts Offices, the O/o CGA added value by including more financial operations of the Indian government within the scope of PFMS.

Role of PFMS in Regulating Digital Finance

Today, the primary purpose of PFMS is to support the Government of India's robust Public Financial Management System by setting up an adequate cash flow system and a payment cum accounting network. As part of the Government of India's Digital India strategy, PFMS offers many stakeholders an efficient decision support system and a real-time, dependable, and meaningful management information system. Interfaces have been developed between the PFMS and the Treasury systems of all 28 States and the two Union Territories with legislatures. This makes it easier to share information



on the budget, allocation, and spending for the Government of India's centrally sponsored schemes about the central funding transfer. As the backbone of the Indian government's payment system, PFMS is integrated with the nation's core banking system, giving it the unique capacity to authenticate accounts before directing online payments to nearly all beneficiaries and vendors. Currently, the Reserve Bank of India, India Post, all Public Sector Banks, all Regional Rural Banks, central Private Sector Banks, and Cooperative Banks are among the approximately 300 banks with which PFMS interfaces with their Core Banking System (CBS). Over time, the integration must become universal, meaning an interface must be set up with every bank that does business in India and in order to make Aadhaar-linked payment validation easier, an interface with the National Payments Corporation of India (NPCI) has also been built. Also, under Direct Benefit Transfer, PFMS is the reporting, accounting, and payments conduit. As a result, using PFMS, all Indian government departments and ministries electronically transfer funds to beneficiaries, who may be individuals or institutions. It has interfaces with more than fifty beneficiary management applications/systems from various Ministries and Departments.

Recommendations Based On Analysis of Secondary Literature

- Public awareness and safeguards against financial cybercrimes should be fostered by using Analytics, Artificial Language (AI), and Machine Language (ML). Also, data collected from publicly accessible official databases provide individuals with recommendations based on their profiles and more attractive offers.
- Encourage financial literacy and inform people about services like phone banking, low-cost phones with UPI and Near Field Communication (NFC) capabilities, and improved touchless payment (NFC & QR) systems.
- Awareness of everyday functions like ticket booking and bill payment, which are compatible with Bharat QR.
- Technology should strive to lower transaction costs, keep pushing recommendations to each person to guarantee social, health, and financial inclusion, and make sure that funds are getting to last-mile beneficiaries at minimal costs.
- Constant Improvement of Cybersecurity and IT to improve its efficiency and effectiveness in combating emerging threats and safeguard its IT infrastructure that supports vital payment infrastructure and regarding this Reserve Bank should make a consistent effort to evaluate and modernize its IT security architecture.
- Robotic Process Automation (RPA) is designed to automate repetitive and manual tasks, such as software installation, report generation, reconciliation issues, and fault remediation activities. This eliminates the need for IT engineers to support these tasks and allows for better use of their services for other crucial tasks. This will improve productivity and efficiency in the Reserve Bank's daily activities by lowering the number of human errors.
- The government should tie up with private mobile manufacturers to offer features or smartphones at a subsidized price.
- People should be educated on existing and new government schemes that provide low-interest lending, and regulators must ensure that related services are delivered successfully.
- Skills enhancement training or primary education for individuals must be provided and regulators must sternly enforce and guide all parties involved to obtain customer consent before sharing any data.



If we adopt these practices, India will succeed in promoting economic empowerment and fostering inclusive growth through digital financial services.

Conclusion

If significant changes are made, such as improving the payment infrastructure, increasing merchant onboarding, decreasing fraud, increasing customer trust in digital payments, and improving the usability of such payment modes, the pandemic-induced "switch to digital" is probably going to be permanent. This would guarantee that the current preference movement toward digital is a long-term behavioural change rather than merely a passing trend. Thus, we can state that excellent coverage of the next wave of financial inclusion in the nation will require a technologically advanced, multifaceted, and dynamic approach focused on improving financial literacy, social and educational inclusion, improved cybersecurity, stricter laws, and enhanced digital infrastructure.

References

1. Agrawal, G., & Jain, P. (2019). Digital Financial Inclusion in India: A Review. *Behavioral Finance and Decision-Making Models*, 195–203. <https://doi.org/10.4018/978-1-5225-7399-9.ch011>
2. Asif, M., Khan, M. N., Tiwari, S., Wani, S. K., & Alam, F. (2023). The Impact of Fintech and Digital Financial Services on Financial Inclusion in India. *Journal of Risk and Financial Management*, 16(2), 122. MDPI. <https://doi.org/10.3390/jrfm16020122>
3. Begum, M. F. (2018). An Overview of Digital Financial Services in India: Concept, Initiatives and Advantages. *Asian Journal of Management*, 9(3), 1139. <https://doi.org/10.5958/2321-5763.2018.00183.x>
4. Bharali, R. K., & RatanBorman. (2017). Mobile Banking for Financial Inclusion: Adoption and Challenges. *Splint International Journal of Professionals*, 4(6), 75–80.
5. Bhatia-Kalluri, A., & Caraway, B. R. (2023). Transformation of the Digital Payment Ecosystem in India: A Case Study of Paytm. *Social Inclusion*, 11(3), 320–331. <https://doi.org/10.17645/si.v11i3.6687>
6. Chakrabarty, K. C. (2011). *BIS central bankers' speeches*. <https://www.bis.org/review/r111013f.pdf>
7. Deshwal, P. (2015). A STUDY OF MOBILE BANKING IN INDIA. *International Journal of Advanced Research in IT and Engineering Impact Factor: 5, 418(12)*. <https://garph.co.uk/IJARIE/Dec2015/1.pdf>
8. Durai, T., & Stella, G. (2019). Digital Finance and its impact on Financial Inclusion. *International Journal of Emerging Technologies and Innovative Research*, 6(1), 122–127. <https://www.jetir.org/view?paper=JETIRV006018>
9. Goswami, S., Sharma, R. B., & Chouhan, V. (2022). Impact of Financial Technology (Fintech) on Financial Inclusion(FI) in Rural India. *Universal Journal of Accounting and Finance*, 10(2), 483–497. <https://doi.org/10.13189/ujaf.2022.100213>
10. Haenssger, M. J. (2018). The struggle for digital inclusion: Phones, healthcare, and marginalisation in rural India. *World Development*, 104(C), 358–374. <https://doi.org/10.1016/j.worlddev.2017.12.023>
11. Jain, S., & Gabor, D. (2020). The Rise of Digital Financialisation: The Case of India. *New Political Economy*, 25(5), 1–16. <https://doi.org/10.1080/13563467.2019.1708879>
12. Kanungo, R., & Gupta, S. (2021). Financial inclusion through digitalisation of services for well-being. *Technological Forecasting and Social Change*, 167(5). <https://doi.org/10.1016/j.techfore.2021.120721>



13. Malladi, C. M., Soni, R. K., & Srinivasan, S. (2021). Digital financial inclusion: next frontiers—challenges and opportunities. *CSI Transactions on ICT*, 9(2), 127–134. <https://doi.org/10.1007/s40012-021-00328-5>
14. Mishra, A. R., & Gupta, K. (2018). *Over 20% of business correspondents faced fraud in 2017: MicroSave report.* Mint. <https://www.livemint.com/Industry/4jL1r9XnS43BbwdEOZEVLO/Over-20-of-business-correspondents-faced-fraud-in-2017-Mic.html>
15. Ozili, P. K. (2018, January 8). *Impact of Digital Finance on Financial Inclusion and Stability.* Mpra.ub.uni-Muenchen.de. <https://mpa.ub.uni-muenchen.de/84771/>
16. Peric, K. (2015). Digital financial inclusion. *Journal of Payments Strategy & Systems*, 9(3), 212–214. <https://doi.org/10.69554/PFLH9461>
17. *REPORT OF THE COMMITTEE ON FINANCIAL INCLUSION.* (2008). <https://www.findevgateway.org/sites/default/files/publications/files/mfg-en-paper-report-of-the-committee-on-financial-inclusion-jan-2008.pdf>
18. *Reserve Bank of India - Annual Report.* (2022). <https://www.rbi.org.in/Scripts/AnnualReportPublications.aspx?year=2023>
19. Singh, A. (2017). Role of Technology in Financial Inclusion. *International Journal of Business and General Management*, 6(5), 1–6.
20. Vijayan, A. (2019). Digital India -A Roadmap to Sustainability. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 8(5), 2278–3075. <https://www.ijitee.org/wp-content/uploads/papers/v8i5/E3234038519.pdf>.
21. Vyas, V., & Jain, P. (2021). Role of digital economy and technology adoption for financial inclusion in India. *Indian Growth and Development Review*, 14(3), 302–324. <https://doi.org/10.1108/IGDR-01-2020-0009>.
22. Warhamni, & Rahmi, N. (2021). Financial Technology Determination In Terms Of Financial Inclusion And Financial Literacy. *Conference on Economic and Business Innovation (CEBI)*, 1(1), 474–485. <https://jurnal.widyagama.ac.id/index.php/cebi/article/view/128>.