

Fintech Inclusion in Rural India: Adoption Gaps and Enabling Factors

Afiya Afsheen¹, G. Shravya Sree², Sameera Afroze³, Smriti Nagaria⁴

^{1, 2, 3, 4}St. Joseph's Degree & PG College, Abids, Hyderabad

Corresponding author: afiyaafsheen478@gmail.com

Available at <https://omniscientmjprujournal.com>

ABSTRACT

In its digital transformation, the Indian financial sector has advanced significantly because to government programs, technology advancements, and shifting consumer preferences. India is likely to continue prioritizing the promotion of digital use in its endeavours to modernize its banking system and promote economic development, transforming into one of the world's most vibrant fintech markets. The development is not only confined to urban spaces but is gradually making its way to rural parts of India; however, there exists certain challenges due to infrastructure and socio-economic constraints. The way financial services are provided and used is being redefined by the government's support of digital infrastructure and fintech innovation. This presents a number of difficulties, particularly in rural areas where widespread adoption is still hampered by low levels of digital literacy, erratic internet connectivity, and mistrust of online financial services. **Objectives:** To determine the current state of fintech adoption in rural India. To identify key gaps and enabling factors that promote fintech inclusion in rural regions. To suggest policy-based recommendations to accelerate fintech adoption in rural India. **Methodology:** The current research delivers an overview of the growing fintech ecosystem and elaborates on both the prospects of the continuously evolving fintech and dwells on the policy and other actions required to ensure that the results of these developments must be inclusive and must reach the bottom of the pyramid. The study is descriptive and exploratory in nature. **Results & Discussion:** In spite of various initiatives launched by the government of India, still the reach of financial reforms and technology is uneven and is inadequate. Additionally, there is a dire need of reforms in the areas of digital infrastructure and technological innovation. Financial awareness among the rural population needs to be improved through digital and financial literacy programs which is essential to achieve financial inclusion through digital finance.

Keywords: Digital Banking Adoption, Fintech Barriers, Financial Inclusion, Digital Literacy, Rural India

INTRODUCTION: The results of privatisation of commercial banks heralded the onset of fintech revolution through comprehensive reforms in the area of digital finance and digital

technology. The private sector banks provided seamless banking experience by implementation of latest technology, utilising the digital infrastructure accordingly. With the advent of continuous reforms in latest technologies the private banks increased financial inclusion, accessibility and strength among Indian consumers irrespective of location and reach. The fruits of digitization of India's finance sector across all levels of income was further complemented by the rise of applications such as Bhim app, Google Pay, Paytm thereby streamlining money transfers, investments and microfinance. Rural India constitutes about 900 million people across all demography and contribute to 17% of India's GDP. As per RBI report the digital transactions in rural India surged recently. Further the ease of paying bills online for services such as electricity, railway booking and tax payments enhanced the further use of these applications. The shift in India's finance industry is clear in both urban and semi-urban areas, where banking is being replaced or supplemented by digital forms. Financial services have become ubiquitous with Google Pay, Phone, Paytm, and Razorpay streamlining bill payments, money transfers, managing investments, and micro-financing. Even government services, including railway reservations, electricity bill payments, and municipal tax payments, are increasingly being conducted through fintech. The governments push to enhance awareness among the citizens for safe and efficient transactions further expanded the country's digital financial services. There has been a remarkable transformation from a cash centric economy to digital payments landscape. The other significant factors that led to rise of digital finance is the use of smartphones with inexpensive internet data along with the initiatives such as ADHAAR, Prime Minister's Jan-Dhan Yojana and direct benefit transfer scheme by the government of India for various schemes. Regardless of much advancement in the digital landscape there exists several bottlenecks when it comes to implement the same across rural sectors. The rural India is devoid of weak internet penetration along with less digital literacy, cultural challenges leading to uneven fintech adoption. In order to achieve financial inclusion across all levels it is imperative for the government to take measures in order to close the urban-rural divide.

Research Problem: Regardless of tremendous reforms brought in by the government in the fintech ecosystem in India there exists gaps in fintech adoption in rural and semi-urban areas, the actual usage and trust among many potential users still lags behind. There is huge disparity in structural, technological and socio behavioural barriers that hinder rural populations from fully engaging with financial platforms.

LITERATURE REVIEW:

Mhlanga (2022) in his study stated that fin tech can play a great role in closing the socioeconomic gaps by providing financial services such as savings accounts, insurance and cheaper credit. Mhlanga (2022) asserted that the formerly unreachable financial goals of rural customers are now attainable due to availability of scalable and affordable fin tech solutions. Hasan and Babur (2022) stated that due to the continuous upgradation of digital financial platforms, female entrepreneurs can now easily obtain finance and scale their operations. Research by Alkaseasbeh and Alsamadi (2023) fintech not only improves banking accessibility but also helps informal sector entrepreneurs in obtaining credit easily. Regardless of so many advancements significant problem in transferring the latest technological advancements to rural India.

Priyadarshi (2024) in her research concluded that UPI, mobile wallets not only fulfils the financial holes but promotes accessory services such as insurance and credit thereby mediating the adoption of FinTech.

Maknickiene (2024) emphasizes the importance of an inclusive environment where even marginalised communities can participate and reap the benefits.c Even though one can notice the implications of a digitized financial sector , there exists serious gaps in attaining financial inclusion at grassroot level. Nanduri (202) asserts that steadfast internet and mobile connectivity are essential for the success of Fin Tech which are scanty in rural India.

Mulyono (2023) discusses that there are serious gaps and deficiencies in technology, infrastructure that stalls the advancement of FinTech Services. One of the serious problems with rural India is that the customer confidence along with low internet penetration and socio-cultural gaps according to research by Priyadarshi et all (2025) and Chandran (2022). Finally, as noted by Adeola (2021), regulatory barriers that are typified by erratic rules and unduly intricate frameworks make it even more difficult to integrate FinTech solutions into rural mark. The readiness of rural consumers to embrace FinTech solutions is significantly influenced by their level of digital financial literacy (DFL).

Higher DFL is highly linked to better financial results, according to Singh (2023). Aryan et a. (2024) support this idea by showing that consumers who are more techsavvy are better able to use FinTech services.

However, studies by Mpofu (2023) and Priyadarshi et al. (2025) show that obstacles including a lack of understanding,trust, and infrastructure constraints can seriously impede adoption.

There is a huge gap in research of financial inclusion in terms of relationship between perceived risk and trust in rural India is not thoroughly studied. The most important variable of confidence of rural India on digital platforms is not thoroughly researched.

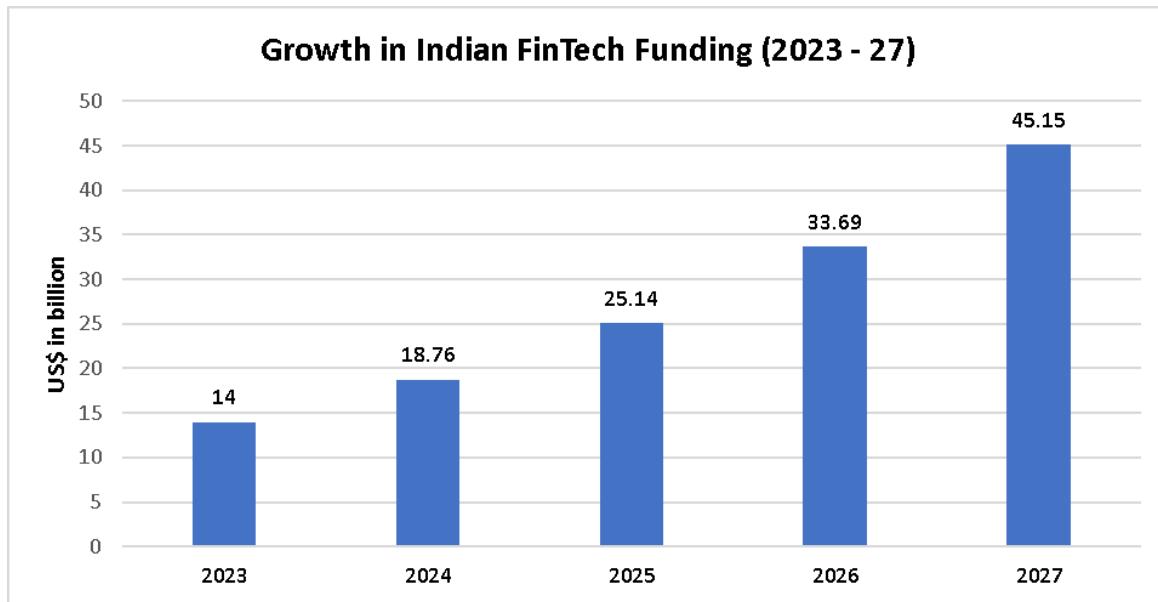
The critical topic of confidence in digital platforms is still not well explored, indicating a critical field for additional research, even if greater digital competency typically promotes utilisation. Further research is also necessary to understand how DFL interacts with elements like cultural beliefs and past financial experiences. Thus, this analysis establishes the framework for investigating the potential effects of these behavioural insights on more general economic results in rural regions.

Financial behaviour in rural India depends on gender and socio-economic status of the individuals. Ech platforms. Mpofu (2023) in his research emphasized that lack of financial literacy and gender differences hinder rural women to utilise the FinTech Platforms. Miah (2023) asserts that gender inclusive financial literacy and mobile banking platforms may enable women advancement thereby contributing to their financial inclusion. Rahayu (2023) concluded that digital financial literacy will allow women to be more financially empowered and can participate across all financial platforms.

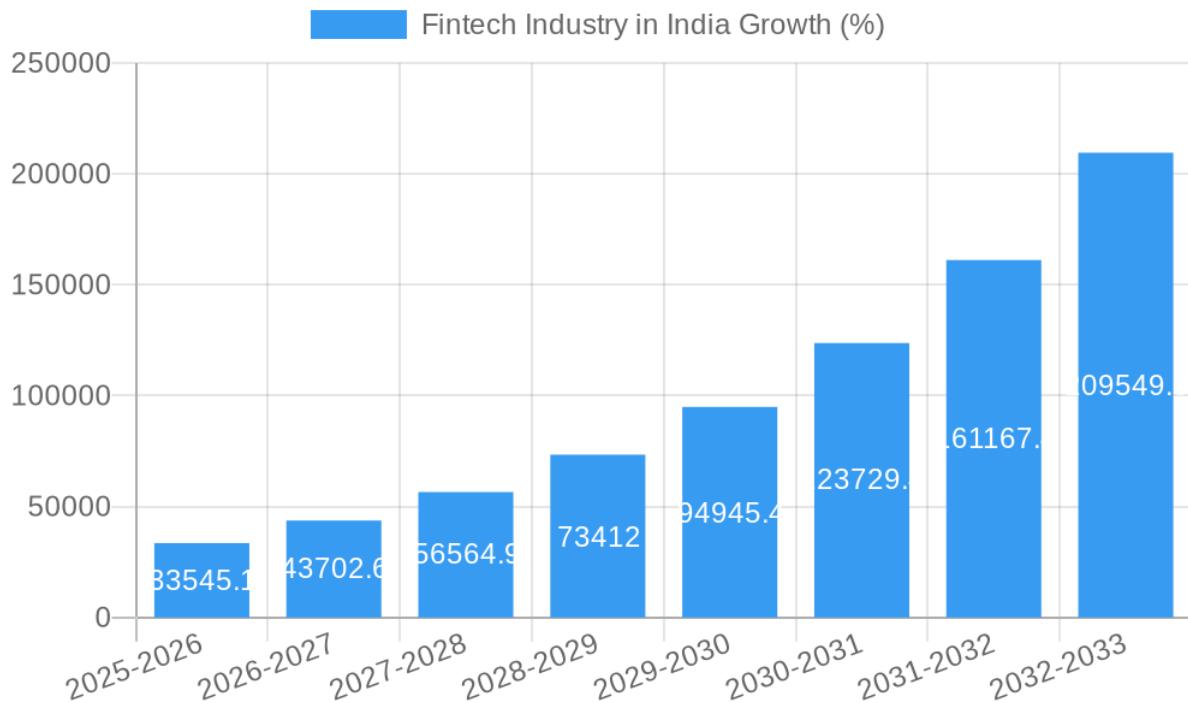
RESEARCH METHODOLOGY: The current study explores the current state of fintech adoption in rural India by following descriptive and qualitative research design where the data is gathered from secondary sources such as RBI, Niti Ayog, academic magazines and journals.

Growth of FinTech market in India:

The fintech industry in India is still growing quickly thanks to government initiatives, the confluence of technology and finance, and growing customer demand for digital solutions. A tech-savvy populace, rising smartphone penetration, and digital-first financial strategies are all contributing to India's extraordinary fintech acceptance, making it one of the world's fastest-growing fintech marketplaces. The India fintech market is anticipated to develop at a compound annual growth rate (CAGR) of 30.26% from 2024 to 2032, reaching a projected value of USD 155.67 billion in 2025 and USD 990.45 billion by 2032 thanks to its dynamic mix of start-ups and established businesses.



Source: DART Consulting

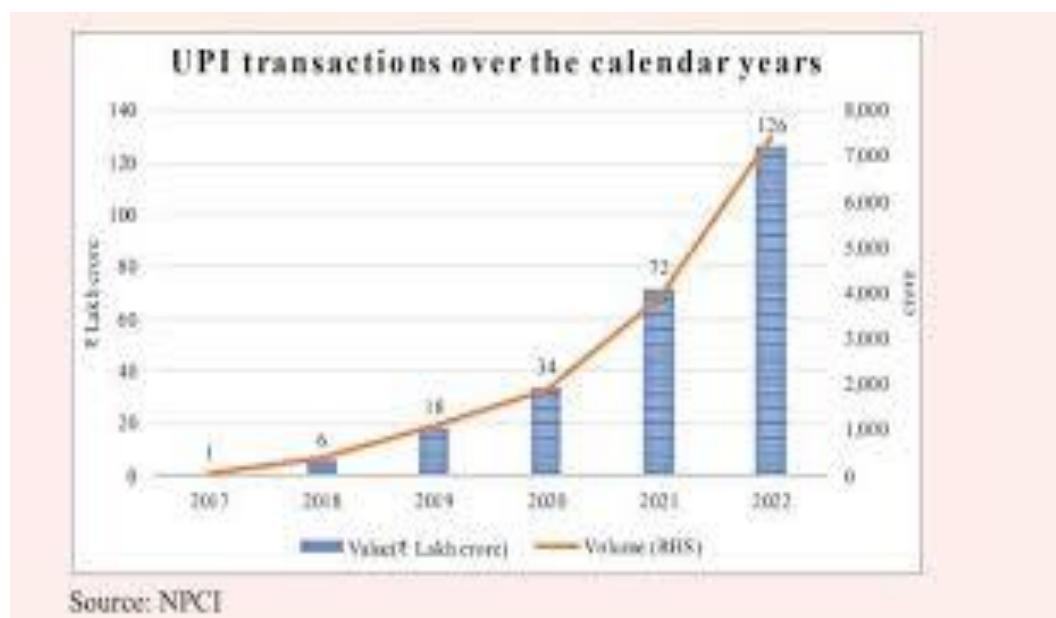


Source: Data insights Markets:

The foundation for fintech innovations has been established by the government's ongoing push for digitisation through projects like Digital India and the implementation of regulatory measures like UPI and Aadhaar-based e-KYC. Furthermore, when businesses and individuals looked for frictionless, flexible, and safe financial options, the COVID-19 epidemic sharply accelerated the digital adoption curve.

The Indian fintech market has grown significantly as a result of the middle class's quick rise. Fintech companies have successfully closed the gap in the market by providing new and easily accessible financial solutions to consumers with more disposable income. India has seen a significant digital revolution over time. The main drivers of the evolution include the RBI-approved fintech sandbox, the government-backed Digital India initiative, and the NPCI's introduction of UPI. As a result of Digital India project the digital maturity of the population increased significantly.

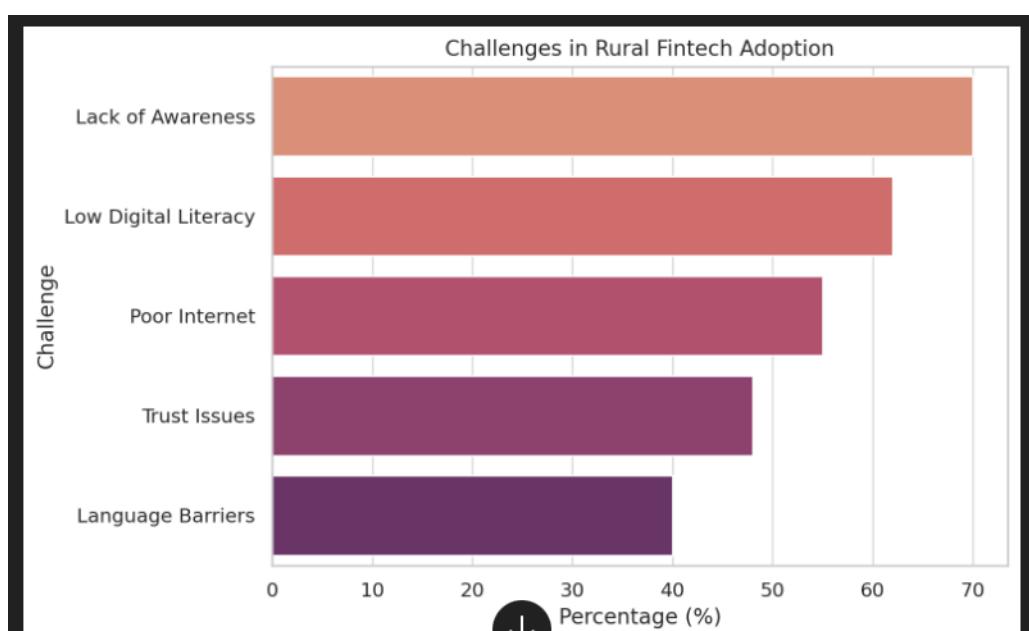
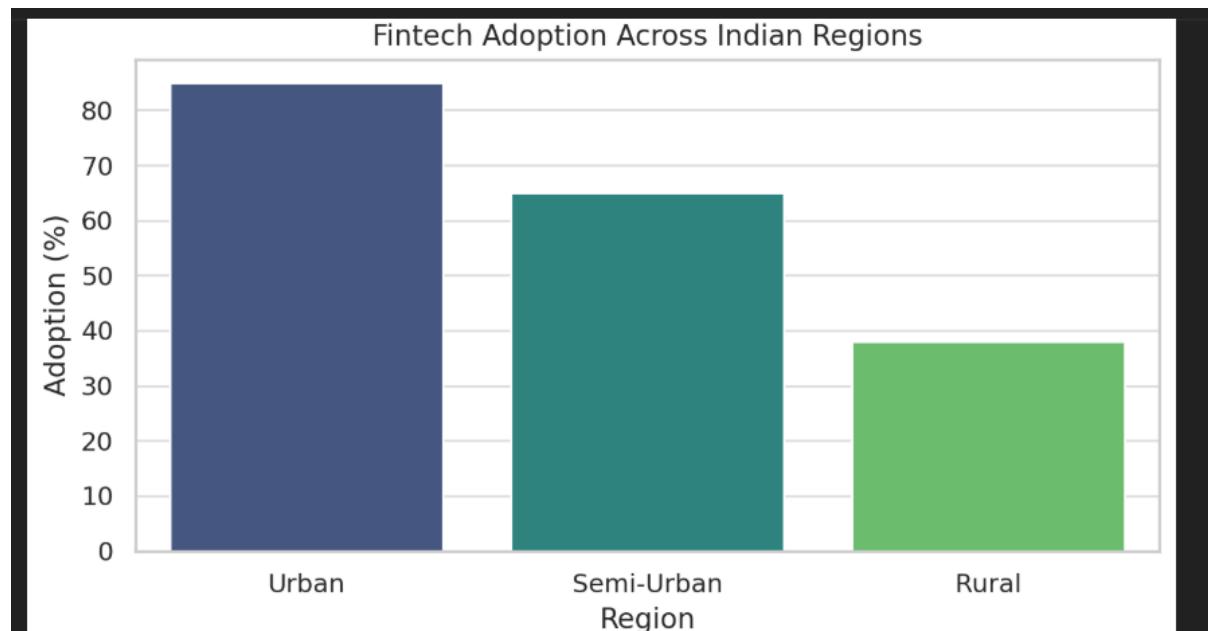
Digital Payments in India: The transaction volume of digital payments in India increased by 42% and is still rising. There exists multiple factors such as the rise of Fintech platforms as start-ups, Innovation ecosystem through incubation, continuously developing technology, rise in financial literacy and risk mitigation initiatives by the government of India in order to protect the interests of consumers. There is huge potential in the ever rising domestic Fintech market for various financial platforms.



The unified payment interface launched by National Payments corporation in 2016 has revolutionised Indias digital payment landscape. Indian governments initiatives such as demonetisation digital India campaign gave the necessary boost to increase its use. Covid added fuel to the fire in spread of UPI during which the massive growth of UPI was noticed. It has been estimated that UPI accounts for more than 80% digital payments across all levels in India. In India it is just a matter of few years where a largely cash driven economy switched over to UPI, thereby achieving objectives of financial literacy and financial inclusion.

Digital Banking Adoption in Rural India:

In India the major push towards digital banking came through the government initiatives such as Pradhan Mantri Jan Dhan Yojana, providing millions with personal bank accounts marked the beginning of the growth of digital transactions across all levels. In addition to it low cost financial platforms such as UPI and Aadhar enabled financial payment systems enable transactions swiftly. The most significant factor that lead to the rise of digital banking is the convenience it offers to transfer money, receive subsidies pay bills without the need of travelling to bank branches.



Source: Economic Survey

Challenges in Rural Fintech Adoption

Despite the vast expansion of technology in finance sector but the other side of rural India has got its challenges in social, educational and infrastructural issues when it comes to embracing the digital platforms. Without digitally literate population, improved 4G/5G internet connectivity, it would create a great digital divide for a sizeable population in rural India.

Technological Constraints:

The biggest challenge is adoption of fintech platforms as financial tools with variables such as accessibility, availability of power, real time data/internet. Infrastructure is one of the major contributors for illiteracy in rural India. Obsolete technology, language problems, and non-user-friendly designs contribute to the lack of adoption by the rural Indians. Latest technologies such as block chain based financial platforms can streamline payment operations, improve safety and increase the digital participation across all levels. For instance, farmers access to technology can be enhanced by employing offline functionality, localised services and user-friendly interface. More amount of investments is needed for infrastructure projects to improvise rural connectivity, security energy, sources and offline banking options.

Low Digital Literacy: The biggest divide in rural and urban India is predominantly due to inability of the rural population to comprehend and utilise digital platforms for real time transactions. A major chunk of rural India is not fully adept to handle a smartphone or computer for their day to day tasks. As per latest research 76% of India's adult population is financially illiterate in spite of reaching milestones on UPI transactions across the globe. Due to low literacy levels almost 48% of bank accounts are being dormant across all banks. Many rural Indians finds it difficult to obtain financial services as they lack the requisite knowledge and skills to perform the basic tasks. Low income is also one of the factors which discourages them from pursuing education. It is the duty of the government and financial institutions to impart financial literacy programs across all levels tailored and customised as per the regional languages. Banks and financial institutions must provide transparent information about various banking operations, schemes in order to make informed decisions by the rural population.

Language Barrier for Fin-Tech adoption: India is a land of multiple cultures and languages; language is one of the most significant factors in fintech adoption across all levels. Fintech platforms must customise languages as per their regions as there are more than 22 official languages. Many rural Indian users start utilising fintech applications only to abandon in the middle due to their inability to comprehend not able to find way to proceed further. Banks and financial institutions must at least set up vernacular helplines to offer regional dialect support.

Limited Internet Penetration: Internet technology is the most pressing problem that hinders adoption of fintech in rural India. For seamless banking operations real time internet is the major requisite. Many villages in rural India lack 4G/5G connectivity moreover forest and hilly areas are more challenging for connectivity.

Cybersecurity & Regulatory Constraints: Offering financial services requires great responsibility on the service provider where the trust of the client is very important. FinTech companies must invest more on using the black chain technology in order to secure financial transactions. They must follow all the strict client security regulations to protect their systems. Strong ICT protocols are very important for any security breach. The industry can benchmark the best practices and apply the same.

Trust Deficit and cultural resistance: India is multicultural patriarchal society where cultural norms are a major hindrance to financial inclusion. Women forms the most unrepresented group in financial inclusion across all levels. Patriarchal norms often restrict women to have control over their financial decisions and limit their mobility to banks or financial institutions. Government must take special measures to impart financial literacy to women in order to achieve financial inclusion across all levels. More female banking executives or field agents can be utilised in order to win the trust of women clients.

KEY ENABLERS:

Harnessing Government Policies: The government policies play a major role in bridging the urban vs rural gap in Fintech adoption. Targeted financial literacy programs in vernacular languages based on their regions can help people reap the benefits of digitization in finance, insurance benefits and credit facilities. Government backed platforms such as UPI payment interface, Aadhar enabled payment systems, Bharat Bill pay system provide low cost ways to transact. The government must focus on gender inclusive policies thereby ensuring women have equal access to bank and credit.

Breaking through technological Barriers.: In order to achieve rural breakthrough in FinTech accessibility all the stakeholders such as government, banking and financial institutions, technology enablers, must work together to reach the bottom of the pyramid. UPI considered to be a game changer providing UPI access over offline or other phone friendly payment solutions can increase digital financial participation. By harnessing latest technology, it is better to equip local merchants with NFC enabled devices and adopt multilingual conversational interface. The government can provide more incentives for start-ups operating for fintech inclusion in rural India. In order to breakthrough FinTech adoption robust

infrastructure, local sociocultural changes and policy driven initiatives can achieve sustained and inclusive financial eco system.

Strengthening Gender Inclusiveness: The government must take initiatives to conduct women centric financial literacy programs starting from vernacular interfaces to voice support. There is a great need for low bandwidth adaptable financial apps along with robust cybersecurity and gaining more customer confidence and trust for cautious users. Enhancing FinTech adoption among women needs more than technology deployment by design, delivery and feedback economic empowerment can be achieved by women across rural India.

Revolution of Mobile Banking: Mobile banking has revolutionized digital banking in rural India, eliminating the need for long trips to bank branches. With user-friendly apps in local languages, rural residents can now access their accounts, transfer money, and pay bills easily. A 2022 study by Assocham and PwC found that mobile banking transactions in rural India have surged by over 200% in the past three years.

Fintech Partnerships: Digital banking is witnessing a surge in collaborations between traditional banks and fintech (financial technology) companies. Fintech startups are developing innovative solutions like micro-loans, micro-insurance, and USSD (Unstructured Supplementary Service Data) based banking for feature phones, catering specifically to the needs of the rural population.

Focus on Financial Literacy: Realizing the importance of financial literacy for successful adoption of digital banking services, various parties are implementing campaigns. These campaigns educate rural residents on topics such as good banking practices, fraud detection, and maximizing the value of digital financial tools. Persistent challenges in digital banking in rural areas:

Offline to Online Integration: A hybrid model that combines offline channels (such as postal banking) and online banking can bridge the digital divide. Leveraging AI and big data collection can streamline the digital banking experience for rural customers, offering them customized financial products and services.

Conclusion

This study demonstrates how FinTech is transforming the way financial services are accessed and used in rural communities along with the constraints. Fintech has been considered as a game changer to bridge the gap between haves and have nots. The study covers the numerous constraints at rural level such as use of applications such as google pay; phone pay reveals a note able disparity and creates a divide between rural and urban India. Illiterate population,

older people, women are found to be largely excluded from all these due to sociocultural constraints and lack of education and financial literacy.

Fintech across rural India has the capability to narrow the gap between rural and urban India by working on the reforms in order to serve the underserved. The current research highlights the existing barriers causing the divide and suggest ways to overcome them. The government must focus to address gaps in the implementation of reforms such as older people, women in rural *India* remains largely excluded due to sociocultural barriers and lack of financial education. As the world progresses as per the changing financial landscape it is important that there must not be any gaps for rural and urban areas in reaping the benefits of convenience, innovation and risk mitigation.

As per recent research there is great disparity among urban and rural India in order to obtain the benefits of Fintech revolution. The major hurdle lies with rural India wherein a great digital divide exists due to many factors such as poor connectivity and lack of digital literacy. The urban India is embracing the next step of FinTech revolution due to the rise of Buy now pay later services marking a new beginning in consumer behaviour with respect to FinTech. The other side of the coin is as it poses risks of financial mismanagement among the young generation and first-time credit users. The government must bring in the regulatory reforms to tackle these thereby raising concern over long-term financial health and avoid potential debt traps.

Digital banking in rural India holds immense potential to revolutionise the financial landscape thereby achieving the goals of financial inclusion, reducing economic disparities. education, connectivity, security, digital banking can be utilized as a powerful tool to empower rural citizens, connect them to more opportunities and integrating them with India's growth story. The main focus must be making financial systems more inclusive and equitable. Care must be taken to address the gaps that stops the side-lined the rural groups in making them an integral part of the Fintech ecosystem. By increasing the reach across all levels, the nation can unlock the potential to drive economic growth and foster a more inclusive and equitable society.

Implications: In order to determine the crucial success criteria and another development driver for FinTech services, it provides empirical evidence. The study's findings give decision-makers—including payment institutions, mobile money partners, the government, and law enforcement—the information they need to create a plan to get over the current obstacles to inclusive financial growth. Based on the study's findings, policymakers and industry

participants can utilise mobile phone technology to develop new services and policies that will increase employment, income, and the general well-being of citizens.

The paper helps in the creation of a citizen dataset of financial technology beneficiaries. The results would help mobile service industry to discover an economy of scope in providing services at low cost and with maximum social benefits. Study will also provide insights to financial institutions offers banking services via mobile to handle cross-border transactions to low-income customers of remote areas. Finding of the study also add to the existing literature of financial inclusion interventions in developing countries. The study contributes to the development of a citizen dataset of people who have benefited from financial technology. The findings would assist the mobile service sector in finding a way to provide services at a cheap cost while maximising societal benefits. The study will also help financial institutions that provide mobile banking services to low-income clients in rural places so they can handle cross-border transactions. The study's findings also contribute to the body of knowledge regarding financial inclusion initiatives in underdeveloped nations.

REFERENCES

Adama, H.E., Popoola, O.A., Okeke, C.D. and Akinoso, A.E. (2024). Economic Theory and Practical Impacts of Digital Transformation in Supply Chain Optimization. *International Journal of Advanced Economics*, 6(4)

Aduda, J., & Kalunda, E. (2012). Financial inclusion and financial sector stability with reference to Kenya: A review of literature. *Journal of Applied Finance and Banking*, 2(6), 95

Alkaseasbeh, M., Alqurran, T., & Orabi, M. M. A. (2023). Role of fintech in uncovering parallel economy initiatives among house-held business intrapreneurs. *Journal of System and Management Sciences*, 13(5).

Alsmadi, A. A., Aalrawashdeh, N., Al-Gasaymeh, A., Al_hazimeh, A. M. D., & Alhawamdeh, L. (2024). Adoption of Islamic Fintech in lending services through prediction of behavioural intention. *Kybernetes*, 53(6), 1921-1938.

Amaliah, I., Ali, Q., Sudrajad, O. Y., Rusgianto, S., Nu'man, H., & Aspiranti, T. (2024). Does digital financial inclusion forecast sustainable economic growth? Evidence from an emerging economy. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(2), 100262.

Aziz, A., & Naima, U. (2021). Rethinking digital financial inclusion: Evidence from Bangladesh. *Technology in Society*, 64, 101509.

Babar, Z. N., Al Sulaiti, K., Aldereai, O., Abbas, J., & Al Sulaiti, I. (2023). Financial inclusion, leadership abilities, family support, and country of origin effects empower female entrepreneurs. *Journal of Excellence in Business Administration*, 1(2), 39-63.

Banerjee, S. (2025). The Role of Fintech in Financial Inclusion: A Survey of Low-Income Individuals in

Kolkata. *Trends and Challenges of Electronic Finance*, 249.

Blakstad, S., & Amars, L. (2020). FinTech at the frontier: Technology developments supporting financial inclusion in Niger. *Journal of Digital Banking*, 4(4), 318

Butt, M. W. F., & Babar, S. (2025). Blockchain Integration in Islamic Finance: A New Era for Banking Sector in Pakistan. *Reviews of Management Sciences*, 7(1), 10-38.

Chandran, P., Deepa, D., & Tholath, I. (2022). Digital revolution in banking services and ethical aspects: a Review. In *Journal of Positive School Psychology* (Vol. 2022, Issue 5)

Dhaya, M., & Sundaram, N. (2024). FinTech innovations in financial inclusion: A bibliometric and systematic review. *International Research Journal of Multidisciplinary Scope (IRJMS)*, 5(4), 501–518

Fahy, L. (2022). Regulator reputation and stakeholder participation: A case study of the UK's regulatory sandbox for fintech. *European Journal of Risk Regulation*, 13(1), 138–157.

Fahy, L. (2022). Regulator reputation and stakeholder participation: A case study of the UK's regulatory sandbox for fintech. *European Journal of Risk Regulation*, 13(1), 138–157

Gallego-Losada, M. J., Montero-Navarro, A., García-Abajo, E., & Gallego-Losada, R. (2023). Digital financial inclusion. Visualizing the academic literature. *Research in International Business and Finance*, 64, 101862.

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.

Heng, D., & Tok, Y. W. (2022). Fintech: Financial inclusion or exclusion? IMF Working Papers, 2022(080). <https://doi.org/10.5089/9798400208645.001>

irma, A. G., & Huseynov, F. (2023). The causal relationship between FinTech, financial inclusion, and income inequality in African economies. *Journal of Risk and Financial Management*, 17(1),

Jhamb, A. (2025). FinTech Adoption and Financial Inclusion in Rural India. *Journal of Neonatal Surgery*.

Kandpal, V., & Mehrotra, R. (2019). Financial inclusion: The role of fintech and digital financial services in India. *Indian Journal of Economics & Business*, 19(1), 85-93.

Karangara, R. (2023). Examining the role of fintech in financial inclusion and its impact on financial services to underbanked population in India. *International Journal for Multidisciplinary Research*, 5(5). <https://doi.org/10.36948/ijfmr.2023.v05i05.7473>

Kouam, A. W. F. (2024). Steering the digital shift: The role of fintech in transforming banking in emerging markets. *Preprints*

Mandić, A., Marković, B., & Žigo, I. R. (2025). Risks of the Use of FinTech in the Financial Inclusion of the Population: A Systematic Review of the Literature. *Journal of Risk and Financial Management*, 18(5), 250.

<https://doi.org/10.3390/jrfm18050250>

Mhlanga, D. (2022). Digital Financial Inclusion, and the Way Forward for Emerging Markets: Towards Sustainable Development. In: Digital Financial Inclusion. Palgrave Studies in Impact Finance. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-16687-7_18

Mulyono, N. (2023). The impact of digital literacy on fintech service usage through financial literacy. E3S Web of Conferences, 426, 02003. <https://doi.org/10.1051/e3sconf/202342602003>

Naz, F., Karim, S., Houcine, A., & Naeem, M. A. (2024). FinTech growth during COVID-19 in MENA region: Current challenges and future prospects. *Electronic Commerce Research*, 24(1), 371–392

Parvin, S. R., & Panakaje, N. (2022). A study on the prospects and challenges of digital financial Inclusion. *Education (IJCSBE)*, 6(2), 469-480.

Patel, A., & Satapathy, S. K. (2023, July 14–16). Empowering digital banking services and enhancing financial inclusion using smart and robust fintech software solutions. 2023 World Conference on Communication & Computing (WCONF) (pp. 1–9), Raipur, India.

Pereira, C. M. (2025). The uncertain path towards open finance: Mutual lessons from the United Kingdom and European Union regulatory approaches. In *A research agenda for financial law and regulation* (pp. 83–112). Edward Elgar Publishing.

Peric, K. (2015). Digital financial inclusion. *Journal of Payments Strategy & Systems*, 9(3), 212-214.

Priyadarshi, A. (2025). FinTech-Driven Financial Inclusion in Rural India: Barriers, Opportunities, and Behavioral Insights. *The Lumbini Journal of Business and Economics*, 13(1), 102-111.

Tay, L. Y., Tai, H. T., & Tan, G. S. (2022). Digital financial inclusion: A gateway to sustainable development. *Heliyon*, 8(6).

Umar, M., Abbas, R., & Sheharyar, M. (2023). FinTech and financial inclusion in sub-saharan Africa: A comparative analysis. *Review of Applied Management and Social Sciences*, 6(4), 669–680.

Vuong, G. T. H., Barky, W., & Nguyen, M. H. (2025). Stabilizing the national banking system through digital financial inclusion, creative innovations, and green finance in low-financially developed economies. *Journal of Open Innovation: Technology, Market, and Complexity*, 11(1), 100434.

Zetzsche, D. A., Buckley, R. P., & Arner, D. W. (2019). FinTech for financial inclusion: Driving sustainable growth. In *Sustainable development goals: Harnessing business to achieve the SDGs through Finance, technology, and law reform* (pp. 177–203). Wiley.