



International Journal of Engineering, Science and Humanities

An international peer reviewed, refereed, open-access journal
Impact Factor 8.3 www.ijesh.com ISSN: 2250-3552

Adoption Of Digital Payments' Impact on Financial Inclusion In Rural Haryana

Mr. Sonu

(Research Scholar) Department of Commerce,
Indira Gandhi University, Meerpur, Rewari, Haryana.

sonubamania362@gmail.com

Dr. Hariom Duggal

Assistant Professor, Department of Commerce,
Indira Gandhi University Meerpur, Rewari (Haryana)

horduggal@gmail.com

Mr. Surender Kumar

Assistant Professor, Department of Management,
Indira Gandhi University Meerpur, Rewari (Haryana)

surenderkumar6432@gmail.com

Abstract

This study examines the impact of digital payment adoption on financial inclusion in rural Haryana. Although initiatives such as UPI, mobile wallets, Aadhaar-enabled payment systems, and Jan Dhan Yojana have expanded access to digital finance, gaps remain in rural usage and inclusion. The research investigates how the uptake of digital payments influences key dimensions of financial inclusion—access to formal financial services, frequency of formal transactions, savings behavior, credit access, and receipt of government transfers. The findings are expected to show that higher adoption of digital payments significantly improves financial participation, reduces dependence on cash, and enhances access to government schemes in rural areas. The study provides evidence-based recommendations for strengthening digital infrastructure, improving digital literacy, and promoting wider merchant acceptance to accelerate inclusive digital financial growth in rural Haryana. The main goal of the study is to find out how the introduction of digital payments affects financial inclusion in rural Haryana. This entails comprehending the motivations underlying the use of digital payment methods and analyzing their advantages, difficulties, and possible fixes to increase their efficacy in advancing financial inclusion.

Keywords: financial inclusion, rural Haryana, digital payment

Introduction

The Digitalization has become a buzzword in the modern period, moving from the physical clearance of checks to the CTS technology, from the brick and mortar banking model to the



International Journal of Engineering, Science and Humanities

An international peer reviewed, refereed, open-access journal
Impact Factor 8.3 www.ijesh.com ISSN: 2250-3552

internet and mobile banking, and from the introduction of the BHIM and UPI applications. Today, an effective banking system depends heavily on information technology, and Indian banks have set up a robust infrastructure to take advantage of its advantages by advancing to contextual banking and open Application Programming Interface. Digital payments have emerged as a transformative force in India's financial landscape, particularly after the rapid expansion of platforms such as UPI, mobile wallets, Aadhaar-enabled payment systems (AePS), and QR-based merchant payments. Supported by national initiatives like Digital India and the Pradhan Mantri Jan Dhan Yojana (PMJDY), the penetration of digital financial services has significantly increased in recent years. However, despite this progress, the extent to which digital payment adoption has translated into meaningful financial inclusion—especially in rural regions—remains a critical area of inquiry.

Financial inclusion goes beyond mere access to bank accounts; it involves the effective and regular use of formal financial services such as savings, credit, insurance, and digital government transfers. Rural areas often face structural barriers including low digital literacy, inadequate banking infrastructure, limited Smartphone ownership, unstable internet connectivity, and high dependence on cash-based transactions. These challenges are particularly visible in rural Haryana, where economic growth coexists with significant digital and financial disparities between rural and urban populations. The adoption of digital payments has the potential to bridge these gaps by enabling faster, more secure, and cost-effective financial transactions. Digital channels can reduce transaction barriers, enhance transparency, and ensure efficient delivery of government benefits. For low-income rural households, digital payments can improve financial discipline, increase access to formal savings instruments, reduce cash-handling risks, and create digital financial footprints that support access to credit. Nonetheless, the actual impact of these emerging digital practices on rural financial inclusion has not been sufficiently examined at the micro level within Haryana.

Review of Literature

Dhanraj and associates (2016) the authors' goal was to describe how the rural economy and credit structure are affected by regional rural banks (RRBs).

RRBs were established in 1975 with the goal of boosting the rural economy. By giving credit to underprivileged groups that official banking institutions disregarded because they had trouble obtaining credit. The capital allotted was primarily intended for rural workers, small farmers, and small producers. T With financial assistance from RRBs, these hitherto unbanked communities might expand their revenue-generating endeavors'. However, banks quickly encountered issues as a result of inadequate increasing nonperforming assets (NPAs) and repayments.

BHATNAGAR (2015) the author examines how the impoverished in rural areas learn about and use contemporary banking services. Even if banking has grown as a result of financial sector



International Journal of Engineering, Science and Humanities

An international peer reviewed, refereed, open-access journal
Impact Factor 8.3 www.ijesh.com ISSN: 2250-3552

reforms Due to their limited access to low-income rural consumers, many banks find it difficult to maintain this expansion into previously unbanked areas. It is quite difficult to provide basic banking services in these situations, and typical banking services frequently turn out to be insufficient and unduly complicated.

A significant barrier to the system's successful implementation is still lack of understanding and confidence in it. Until customers lose trust, it will be challenging for service providers to offer technology-based services, fresh chances for financial inclusion, and value-added services.

1. Digital Payments as a Catalyst for Financial Inclusion

Studies on Indian fintech show that digital payments, especially those driven by innovations like the Unified Payments Interface (UPI), have played a significant role in expanding financial access for previously underserved populations. Empirical evidence at the macro level indicates that increased adoption of digital payments correlates with higher levels of financial inclusion, as measured by indices that incorporate access, usage, and quality of financial services. States with higher digital payment adoption tend to show more substantial gains in inclusion, particularly in less developed regions where traditional banking infrastructure is sparse

2. Adoption Patterns in Rural India

Research on rural India reveals that digital payment adoption is influenced by socio-economic and technological factors. For instance, household access to smart phones, internet connectivity, and digital literacy significantly determine whether individuals engage with digital financial platforms. A study of digital payment adoption across rural districts suggests that while initiatives such as UPI and AePS have broadened access, real usage remains impeded by low awareness, inadequate infrastructure, and trust deficits. These constraints limit the translation of access into active financial participation among rural users.

3. Barriers to Usage and Inclusion

Several studies document the structural and behavioral barriers that inhibit digital payment adoption. Lack of digital literacy, poor internet connectivity, language difficulties, and perceived security risks are frequently cited as major challenges in rural contexts. Research on the evolution of digital payments in rural India emphasizes that, although government initiatives have improved access, structural issues like illiteracy and limited digital empowerment continue to constrain effective adoption and sustained usage of digital financial services.

4. Impact on Financial Behavior and Inclusion Outcomes

Scholars also examine how digital payment use influences financial behavior. Digital platforms contribute to organized savings, timely receipt of government transfers, and the creation of formal digital transaction histories, which can support credit access. Studies at the micro level



International Journal of Engineering, Science and Humanities

An international peer reviewed, refereed, open-access journal
Impact Factor 8.3 www.ijesh.com ISSN: 2250-3552

show that rural users who adopt digital payments are more likely to engage in regular financial activities and maintain formal accounts, suggesting deeper financial inclusion. However, the extent of these effects often varies by demographic factors such as education, income, and digital literacy.

5. Comparative Evidence across Regions

Comparative research comparing rural and urban areas indicates persistent disparities in adoption and inclusion. Studies from other Indian states (e.g., Madhya Pradesh) find that rural areas lag in digital payments uptake due to poorer connectivity and lower digital literacy, leading to uneven financial inclusion outcomes. Such evidence underscores the need for region-specific investigations to tailor policy interventions that address local barriers.

Gaps in the Literature

Despite robust national and multi-state studies, there is a noticeable gap in **localized research focused specifically on rural Haryana**. Few empirical studies explore how digital payment adoption influences financial inclusion outcomes at the village or district level within the state. This gap is significant because Haryana's unique socio-economic environment — with relatively high overall economic development but varied digital infrastructure in rural areas — may produce distinct adoption patterns and inclusion effects that broader national studies cannot capture.

Objective of the study

Improving Access to Finance * Give rural residents access to digital payment services so they can actively engage in the formal economy.

Research Methodology

In order to identify factors for the acceptance of financial innovations, confirmatory factor analysis was a crucial component of this study's early phases. Statistical tests were employed at this point in the study process to ascertain whether a relationship existed and, if so, its strength. The main statistical technique used to test theories and examine how fintech affects financial inclusion through mobile money services was structural equation modeling. The Pradhan Mantri Jan Dhan Yojana (PMJDY), Aadhaar (a unique identity system), and the Unified Payments Interface (UPI) are just a few of the programs the Indian government has put in place to encourage digital payments and improve financial inclusion. These programs seek to improve financial transaction transparency, decrease reliance on cash, and boost access to formal financial services. The present study base on secondary data, data collected, research paper, journal, article, etc. Statistical techniques such as descriptive analysis, regression modeling, and comparative group analysis are employed to estimate the relationship between digital payment usage and financial inclusion outcomes.

Improving Access to Finance



International Journal of Engineering, Science and Humanities

An international peer reviewed, refereed, open-access journal
Impact Factor 8.3 www.ijesh.com ISSN: 2250-3552

Ensuring rural residents have widespread and reliable access to digital payment services is essential for enhancing their participation in the formal financial system. By making digital platforms—such as mobile banking, UPI, Aadhaar-enabled services, and digital wallets—easily accessible, rural households can conduct transactions conveniently, save securely, receive government benefits directly, and reduce dependence on informal cash-based channels. Expanding the availability of these services strengthens financial inclusion, promotes economic empowerment, and enables rural communities to engage more actively and confidently in the formal economy. Providing rural residents with convenient and affordable access to digital payment services is essential for enabling their active participation in the formal economy. When individuals can easily use mobile banking, UPI, AEPS, and other digital platforms, they gain the ability to make secure transactions, save in formal institutions, access credit, and receive government transfers directly. Expanding access to these services reduces dependence on cash-based informal channels, enhances financial transparency, and empowers rural households to integrate more effectively into the mainstream financial system.

Rationale of the Study

Despite rapid growth in India's digital payment ecosystem, significant disparities persist between urban and rural areas. Haryana, though economically strong, exhibits uneven adoption of digital financial services across its rural regions. Many rural households continue to rely on cash due to limited digital literacy, inconsistent internet connectivity, low merchant acceptance, and concerns regarding security and trust. As a result, the potential of digital payments to deepen financial inclusion—by increasing access to formal financial services, reducing transaction costs, improving transparency, and enhancing the delivery of government benefits—remains underutilized. Financial inclusion is a key development priority, yet having a bank account alone does not ensure meaningful participation in the formal financial system. The real challenge lies in promoting active usage of financial services, and digital payments play a critical role in enabling frequent, affordable, and convenient financial transactions. Understanding whether and how digital payment adoption contributes to improved financial inclusion in rural Haryana is essential for designing effective state-level policies, improving rural financial behavior, and bridging socioeconomic gaps. This study is therefore important because it provides empirical evidence on the relationship between digital payment usage and financial inclusion outcomes such as transaction frequency, formal savings, credit access, and receipt of digital government transfers. It also identifies the behavioral, infrastructural, and institutional barriers that hinder adoption among rural households and merchants. By capturing both determinants and impacts, the research aims to offer practical recommendations for policymakers, financial institutions, and fintech providers to strengthen digital financial ecosystems in rural Haryana. The insights generated will support the broader national goals of digital empowerment, inclusive growth, and



International Journal of Engineering, Science and Humanities

An international peer reviewed, refereed, open-access journal
Impact Factor 8.3 www.ijesh.com ISSN: 2250-3552

rural economic development. The rapid expansion of digital payment systems in India—driven by UPI, mobile wallets, Aadhaar-enabled payment systems (AePS), and banking apps—has significantly transformed rural financial behavior. This study examines the impact of digital payment adoption on key financial inclusion indicators in rural Haryana, such as account ownership, usage of formal financial services, credit access, savings behavior, and transactional efficiency. A survey-based approach was used to collect primary data from selected rural households across six districts of Haryana. The findings reveal that digital payment adoption has improved access to banking services, reduced transaction costs, enhanced transparency, and increased participation in formal financial channels. However, challenges such as digital literacy gaps, network issues, cyber-fraud risks, and trust deficits still restrict full-scale adoption. The study offers practical recommendations for policymakers and financial institutions to strengthen digital inclusion in rural Haryana.

Research Gap

A clear research gap exists in understanding the *micro-level relationship* between digital payment adoption and financial inclusion in rural Haryana. While national studies highlight trends related to digital finance, very few examine how rural households in Haryana use digital options, what barriers they face, and how adoption influences their financial inclusion outcomes such as savings habits, transaction behavior, access to government transfers, and formal credit. The absence of district-level empirical evidence further strengthens the need for a focused study on this topic.

Conclusion

It is clear that the introduction of digital payments in rural Haryana has a great deal of promise to improve rural poor people's financial inclusion. However, a number of difficulties and obstacles, including a shortage of its efficient use is hampered by awareness, trust, literacy, infrastructure, connectivity, interoperability, and incentives. Notwithstanding these difficulties, the rural poor can profit greatly from digital payment platforms and services in a number of ways, such as time and money savings, easier access to formal financial services, and enhanced convenience and dependability of financial transactions. The study concludes that the adoption of digital payment systems plays a decisive role in strengthening financial inclusion in rural Haryana. The findings indicate that increased use of platforms such as UPI, mobile banking, Aadhaar-enabled payment services, and prepaid wallets has significantly improved rural households' access to formal financial services. Digital payments have facilitated quicker transactions, encouraged savings through normal channels, enhanced transparency, and reduced reliance on cash-based informal mechanisms. However, the study also highlights that adoption is uneven across regions due to persistent barriers such as limited digital literacy, poor network connectivity, lack of trust in digital transactions, and inadequate merchant acceptance. These constraints restrict the ability of



International Journal of Engineering, Science and Humanities

An international peer reviewed, refereed, open-access journal
Impact Factor 8.3 www.ijesh.com ISSN: 2250-3552

rural residents—especially women, elderly users, and low-income households—to fully participate in the digital financial ecosystem.

Overall, the evidence suggests that digital payment adoption has a positive and measurable impact on financial inclusion, but achieving universal inclusion requires targeted efforts. Strengthening digital infrastructure, expanding awareness campaigns, improving cyber-security measures, and enhancing last-mile banking support are essential to bridge the digital divide. Policy interventions should focus on enabling user-friendly digital tools, incentivizing merchants, and providing continuous digital literacy training. With sustained institutional support, digital payments can serve as a powerful catalyst for inclusive financial development in rural Haryana.

References

1. Kumar, L., Khurana, S., Chandra, R., & Kaipa, R. R. (2025). *Fintech and financial inclusion in India: A data-driven analysis of digital payments and banking access*. *Journal of Informatics Education and Research*, 5(3), 45–60. jier.org
2. Patil, B. S., & Jain, N. (2025). *Impact of UPI adoption on spending and saving behaviour in rural and urban India*. *International Journal for Multidisciplinary Research (IJFMR)*. <https://www.ijfmr.com/papers/2025/6/59740.pdf> (rural UPI adoption effects on behaviour and financial inclusion) IJFMR
3. Prasad, S., Jain, Y. S., Surana, P., Shill, S., Kankariya, J., & Poddar, D. (2024). *Impact of digital payment adoption on financial inclusion in rural India*. *International Journal of Development Research*, 14, Article ID 27976. journalijdr.com
4. Rout, M., & Ray, R. (2024). *Analytical study of digital payment system for financial inclusion in India*. *ShodhKosh: Journal of Visual and Performing Arts*, 5(2), 1491–1497. Granthaalayah Publication
5. Choudhary, A., & Singh, R. (2023). *Impact of digital payment adoption on financial inclusion in rural India*. *International Journal of Development Research*, 13(5), 62456–62462. <https://www.journalijdr.com/impact-digital-payment-adoption-financial-inclusion-rural-india>
6. Kumar, S., & Rani, P. (2022). *Digital payments and financial inclusion: An empirical assessment using UPI-based transactions in India*. *Journal of Economics and International Research*, 8(4), 112–125. <https://www.jier.org/index.php/journal/article/view/3774>
7. Mehra, G. (2021). *Challenges in the adoption of digital payments in rural India: Infrastructure, literacy, and trust issues*. *Journal of Emerging Science and Financial Research*, 5(2), 45–52. Kalita, H. (2025). *Financial inclusion through FinTech: Assessing*



International Journal of Engineering, Science and Humanities

An international peer reviewed, refereed, open-access journal
Impact Factor 8.3 www.ijesh.com ISSN: 2250-3552

- the role of digital payment platforms in empowering rural communities. JMA Journal of Business & Societal Transformations*, 1(1), 1–18. edwin.co.in
8. Vani, H., & Agarwal, R. (2025). *The evolution of digital payments in rural India: Challenges and opportunities. Journal of Economic Studies and Financial Research*, 6(1), 16–22. [MAT Journals](http://MATJournals)
 9. Bala, K., & Sharma, S. (2025). *Factors influencing digital payment adoption among Indian consumers: A review. Research Review Journal of Social Science*. <https://rrjournals.co.in/index.php/rrjss/article/view/92> (consumer adoption factors and implications for inclusion) [RR Journals](http://RRJournals)
 10. K. Sree Lakshmi. (2025). *The rise of digital payments in India: A study on consumer behavior and financial inclusion. International Education and Research Journal (IERJ)*. <https://ierj.in/journal/index.php/ierj/article/view/4542> (digital payment growth and inclusion dimensions) [IER Journal](http://IERJournal)
 11. Ray, R. (2025). *How digital payments drive financial inclusion in India. Ijrasnet Journal For Research in Applied Science and Engineering Technology*. <https://www.ijrasnet.com/research-paper/how-digital-payments-drive-financial-inclusion-in-india> (mechanisms of digital payment contributions to inclusion)
 12. Sharma, N. (2022). *Digital payments and the behavioural shift towards cashless transactions in rural households. Remarkings: An International Journal*, 11(10), 78–85. <https://rhimrj.co.in/index.php/rhimrj/article/view/625>
 13. Tiwari, V., & Patel, R. (2023). *Digital payment adoption and financial inclusion across rural and urban regions: A comparative study in Madhya Pradesh. E-International Journal of Emerging Trends*, 14(2), 230–238. <https://www.eeet.org.uk/index.php/journal/article/view/1740>