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IMPACT OF DIGITAL PAYMENT SYSTEMS ON TRADERS AND CUSTOMERS IN KARNATAKA

Girisha B N

Research Scholar, Department of Economics, Karnataka State Open University, Mukthagangothri, Mysore

Ramananda M S

Professor, Department of Economics, Karnataka State Open University, Mukthagangothri, Mysore

ABSTRACT

The rapid proliferation of digital payment systems has fundamentally transformed India's financial and commercial ecosystem. Karnataka, as one of the most technologically advanced states, has witnessed accelerated adoption of digital payments among traders and customers alike. This study critically examines the impact of digital payment systems—particularly UPI, mobile wallets, debit/credit cards, and internet banking—on business performance, customer behaviour, financial inclusion, and transaction efficiency in Karnataka. Using a mixed research methodology based on primary survey data collected from traders and customers across selected districts, and supported by secondary data from the RBI, NPCI, World Bank, NITI Aayog, and recent academic studies (2023–2025), the study finds that digital payments have significantly improved sales turnover, operational efficiency, transparency, and customer satisfaction. However, persistent challenges such as cyber security risks, digital illiteracy, rural connectivity gaps, and behavioural resistance among elderly users continue to hinder universal adoption. The study concludes that digital payments serve as a powerful catalyst for inclusive economic growth in Karnataka, provided infrastructure expansion, cyber security safeguards, and digital literacy initiatives are strengthened.

Keywords: Digital Payments, UPI, Traders, Customers, Financial Inclusion, Cashless Economy, Karnataka.

1. INTRODUCTION

Digitalisation has emerged as a defining feature of India's economic transformation in the 21st century. The introduction of the Unified Payments Interface (UPI), mobile wallets, internet banking, and QR-based payment systems has revolutionised the traditional cash-driven transaction framework. Government initiatives such as *Digital India*, the *Jan Dhan–Aadhaar–Mobile (JAM) Trinity*, demonetisation, and the rapid growth of fintech firms have significantly accelerated the adoption of digital payment mechanisms (RBI, 2023; NPCI, 2024; NITI Aayog, 2025).

Karnataka occupies a strategic position in India's digital economy due to the presence of Bengaluru as the nation's technology capital. While metropolitan areas exhibit near-universal use of digital payments, rural and semi-urban districts such as Mandya, Hassan, Bidar, Ballari, and Tumkur are witnessing a steady transition from cash-based transactions to digital modes. Traders benefit through reduced cash handling, quicker settlements, improved record-keeping, and enhanced access to institutional credit. Customers experience greater convenience, transparency, security, and promotional incentives.

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Nevertheless, the digital transition is not without challenges. Cyber fraud, network instability, digital illiteracy, and trust deficits—especially among elderly and rural populations—continue to constrain universal adoption (Chatterjee & Dutta, 2023; Deepak & Suresh, 2024). Hence, a systematic assessment of the impact of digital payment systems on both traders and customers in Karnataka is of high academic and policy relevance.

2. OBJECTIVES OF THE STUDY

1. To analyse digital payment adoption patterns among traders and customers in Karnataka.
2. To examine the impact of digital payments on business performance and consumer convenience.
3. To identify challenges associated with digital transaction systems.
4. To evaluate the role of government and financial institutions in promoting cashless transactions.
5. To suggest policy measures for strengthening the digital payment ecosystem.

3. SCOPE OF THE STUDY

The study covers traders from the retail, service, wholesale, and informal sectors across selected districts of Karnataka. It examines consumer behaviour across age, income, occupation, and educational groups and focuses on UPI, mobile wallets, internet banking, and card-based payments. The analysis also compares digital and cash-based transaction systems.

4. RESEARCH DESIGN AND METHODOLOGY

The study follows a **descriptive and analytical research design** using a mixed-method approach.

Primary Data

Survey data were collected from **120 traders and 150 customers** from Bengaluru, Mysuru, Mandya, Hassan, Ballari, Tumkur, and Bidar using structured questionnaires and interviews.

Secondary Data

Secondary data were sourced from the RBI (2023), NPCI (2024), Government of Karnataka (2023), World Bank (2023), OECD (2023), ADB (2024), NITI Aayog (2025), and recent peer-reviewed journals (2023–2025).

Analytical Tools

Percentage analysis, correlation analysis, trend interpretation, and the case study method were used for data analysis.

5. REVIEW OF LITERATURE

Agarwal (2022) established that digital payment systems are central to enhancing financial inclusion by integrating unbanked populations into formal finance. Bansal and Mishra (2021) demonstrated that fintech adoption enhances liquidity and reduces transaction costs for retailers. Kumar and Sharma (2020) highlighted the persistent rural digital divide as a structural bottleneck.

Recent studies further strengthen these findings. Verma and Nair (2023) found that UPI adoption has significantly boosted MSME transaction volumes. Iyer and Kulkarni (2023) emphasised that consumer trust and perceived security are decisive factors in digital payment

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adoption. Prasad and Ramesh (2023) confirmed that digital payments contribute to MSME revenue growth in Karnataka. Chatterjee and Dutta (2023) identified rising cyber security threats as the most critical risk in India's cashless transformation. Deepak and Suresh (2024) observed that low digital literacy among rural consumers in Karnataka remains a major adoption constraint.

Global evidence from the World Bank (2023), OECD (2023), and ADB (2024) confirms that digital financial services significantly contribute to inclusive economic growth, MSME resilience, and the reduction of transaction costs across developing economies.

Research Gap:

Most studies are macro-level, banking-centric, or urban-focused. Very limited micro-level empirical research exists on the combined trader–customer impact in Karnataka, justifying the relevance of the present study.

6. CASE STUDIES FROM KARNATAKA

The case studies across ten districts of Karnataka provide strong empirical evidence of how digital payment systems have reshaped day-to-day trading operations, customer behaviour, and financial discipline. These field-level observations validate national trends reported by the RBI (2023), NPCI (2024), and NITI Aayog (2025).

- **Mandya – Grocery Retailer:** QR-based UPI adoption led to a **20–22% increase in monthly turnover**, faster customer movement, and improved eligibility for working capital loans.
- **Hassan – Garment Retail Enterprise:** Cashback offers and EMI-based payments increased impulse buying, particularly among youth and salaried customers.
- **Chitradurga – Bakery Unit:** Digital payments reduced cash pilferage and improved profit predictability.
- **Udupi – Medical Store:** Digital receipts enhanced customer trust and audit readiness.
- **Mysuru – Electronics Retailer:** Seasonal campaigns increased average transaction value by nearly **30%**.
- **Davangere – General Store:** Government subsidy enabled digital onboarding in a poor-network zone.
- **Bidar – Fruit Vendor:** Digitally traceable income improved GST compliance and access to microcredit.
- **Gadag – Hardware Shop:** Offline digital mode ensured business continuity during power failures.
- **Tumkur – Women-Led Cooperative:** UPI strengthened transparency, revenue sharing, and customer loyalty.
- **Ballari – Bookstore:** Data-driven inventory management reduced dead stock and improved profit margins.

7. FINDINGS OF THE STUDY

Economic Outcomes

- **72% of traders** recorded **15–20% revenue growth**.
- **18% of traders** recorded growth above **20%**.

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- Cash handling costs declined by **35–40%**.
- Digitally active traders were **2.3 times more likely** to access institutional credit.

Customer Behaviour

- **68%** preferred UPI, while **19%** preferred debit cards.
- Digital users engaged in more frequent low-value transactions.

Operational Outcomes

- Transaction time reduced by **45–50%**.
- Accounting errors declined sharply.

Inclusion & Social Impact

- Women traders showed higher adoption confidence but faced capital constraints.
- Digital payments improved access to DBT schemes and insurance.

Barriers Identified

- Network instability (67%)
- Cyber fraud fear (59%)
- App complexity (41%)
- Low digital confidence among elderly users (52%)

These findings clearly establish that digital payment adoption enhances both **economic efficiency and social inclusion**.

8. DISCUSSION

The findings strongly validate **transaction cost theory**, as digital platforms minimise market frictions by reducing delays, search costs, and enforcement uncertainty. Rapid settlements through UPI and card-based systems have significantly improved liquidity velocity in Karnataka's retail economy.

From a **behavioural economics perspective**, cashback incentives, contactless convenience, and digital credit options are reshaping consumption psychology—especially among youth and salaried consumers. The observed growth in low-value frequent purchases confirms the shift toward micro-consumption behaviour.

From a **development economics viewpoint**, digital payments expand financial access, enhance enterprise creditworthiness, improve DBT efficiency, and strengthen gender-inclusive entrepreneurship.

However, the digital divide remains a structural bottleneck due to infrastructure constraints, trust deficits, learning barriers, and cyber vulnerability. The growing incidence of digital fraud (RBI, 2023; Chatterjee & Dutta, 2023) threatens long-term confidence unless regulatory and security ecosystems are strengthened.

9. RECOMMENDATIONS

Infrastructure & Access

1. Mandate last-mile fibre and 5G connectivity in rural trade clusters.
2. Introduce solar-powered rural digital kiosks.

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Digital Capacity Building

3. Launch district-wise Kannada digital finance literacy missions.
4. Make digital payment training compulsory under PMEGP and MSME schemes.

Cyber Security & Trust

5. Introduce Digital Transaction Insurance for micro-traders.
6. Establish 24×7 district cyber grievance redressal centres.

Financial Incentives

7. Provide zero-MDR incentive zones for rural merchants.
8. Offer GST-linked cashback incentives.

Women & Informal Sector Support

9. Create Women Digital Entrepreneur Funds for POS and QR onboarding.
10. Provide fintech-linked credit under SHG–Bank linkage programmes.

Technology & Language Inclusion

11. Expand Kannada-based fintech platforms with voice-command support.
12. Promote AI-based fraud detection at merchant terminals.

10. CONCLUSION

Digital payment systems have emerged as a transformative force for traders and customers in Karnataka by improving business efficiency, transparency, revenue performance, and financial inclusion. Despite challenges related to cyber security, infrastructure gaps, and digital literacy, the long-term benefits of digital payments are substantial and sustainable. With coordinated efforts from government, banks, fintech firms, and educational institutions, Karnataka can emerge as a national model for a **secure, inclusive, and resilient digital economy**.

REFERENCES

1. Agarwal, S. (2022). Digital Payment Systems and Financial Inclusion. *Journal of Economic Perspectives*, 36(3), 45–63.
2. Bansal, R., & Mishra, P. (2021). The Role of FinTech in Modern Retail. *Global Commerce Review*, 12(2), 78–89.
3. Chakravarti, S. (2020). Adapting to Digital Payments: The Retailer's Perspective. *Asian Journal of Business Studies*, 28(1), 34–47.
4. Deshmukh, K. (2021). Transforming Rural Businesses Through Technology. *International Journal of Commerce Trends*, 15(4), 110–122.
5. Gupta, T., & Reddy, K. (2022). An Analysis of Digital Wallets in India. *South Asian Economic Review*, 24(2), 88–104.
6. Kumar, V., & Sharma, M. (2020). Bridging the Digital Divide in Rural Areas. *Economic and Political Weekly*, 55(6), 43–56.
7. Menon, A. (2021). Challenges in Digital Payment Adoption. *India Business Journal*, 18(3), 59–71.

ISSN: 2349-2015
Peer Reviewed & Refereed Journal (IF: 6.74)
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8. Nanda, R. (2022). Financial Technology for Small Retailers. *Journal of Rural Economics*, 10(1), 25–38.
9. Rahman, S. (2021). Impacts of Cashless Transactions. *The Indian Journal of Commerce*, 23(2), 12–30.
10. Singh, H., & Gupta, N. (2021). Policy Impacts on Digital Payments. *Journal of Public Policy Studies*, 14(5), 51–67.
11. Krishnan, R. (2021). Retail Businesses and E-Payments: A Case Study Analysis. *Journal of Small Business Management*, 17(4), 48–61.
12. Mehta, T. (2022). Digital Banking for Unbanked Segments. *South Asian Economic Journal*, 15(2), 68–82.
13. Gowda, L. (2021). Inclusive Growth via Digital Payments. *Journal of Rural Development Studies*, 10(8), 35–50.
14. Kulkarni, S. (2020). Barriers to Digital Adoption in Indian Villages. *Emerging Markets Journal*, 14(3), 50–65.
15. Reserve Bank of India (2023). *Report on Trend and Progress of Banking in India 2022–23*. RBI, Mumbai.
16. National Payments Corporation of India (2024). *UPI Annual Performance Report*. NPCI, Mumbai.
17. Government of Karnataka (2023). *Digital Economy and Financial Inclusion Report*. Bengaluru.
18. World Bank (2023). *Digital Financial Services and Inclusive Growth in Developing Economies*. Washington DC.
19. OECD (2023). *Digital Payments and Consumer Protection in Emerging Markets*. Paris.
20. Verma, S., & Nair, P. (2023). Adoption of UPI and Its Impact on Small Traders in India. *Journal of Digital Economy*, 6(2), 41–58.
21. Chatterjee, S., & Dutta, R. (2023). Cyber Security Risks in India's Digital Payment Ecosystem. *Journal of Information Security Studies*, 9(4), 60–78.
22. Deepak, H., & Suresh, M. (2024). Digital Payment Literacy among Rural Consumers of Karnataka. *Indian Journal of Social and Economic Development*, 7(2), 91–110.
23. Asian Development Bank (2024). *Digital Payments and MSME Resilience in South Asia*. Manila.
24. NITI Aayog (2025). *India's Digital Payments Ecosystem 2025*. Government of India Report.
25. Srinivas, N., & Gowda, R. (2025). Impact of Digital Payments on Informal Retail Sector in Karnataka. *Karnataka Economic Review*, 3(1), 1–20.