

Vishal Vasa & Hiren Mehta (2025). *The Transformation of Digital Payments in India: A Comprehensive Analysis with Data Insights and Market Trends (2021-2025)*. International Journal of Multidisciplinary Research & Reviews. 4(4). 280-287.



INTERNATIONAL JOURNAL OF
MULTIDISCIPLINARY RESEARCH & REVIEWS

journal homepage: www.ijmrr.online/index.php/home

THE TRANSFORMATION OF DIGITAL PAYMENTS IN INDIA: A
COMPREHENSIVE ANALYSIS WITH DATA INSIGHTS AND
MARKET TRENDS (2021-2025)

Dr. Hiren Mehta¹ & Dr. Vishal Vasa²

¹ Associate Professor, Navyug College, Morbi

² Associate Professor, Harivandana College, Rajkot

How to Cite the Article: Vishal Vasa & Hiren Mehta (2025). *The Transformation of Digital Payments in India: A Comprehensive Analysis with Data Insights and Market Trends (2021-2025)*. International Journal of Multidisciplinary Research & Reviews. 4(4). 280-287.



<https://doi.org/10.56815/ijmrr.v4i4.2025.280-287>

Keywords	Abstract
Digital Payment, Unified Payments Interface, Digital Economy, Technological Advancements	The digital payments landscape in India has undergone a remarkable transformation in recent years, driven by rapid technological advancements, robust government initiatives, and increasing consumer adoption. This paper presents a comprehensive analysis of the evolution of digital payment systems in India from 2023 to 2025, grounded in the latest transaction data, market trends, and regulatory developments. Leveraging data from the Unified Payments Interface (UPI), Reserve Bank of India (RBI), and other key sources, the study examines growth trajectories, infrastructure advancements, and the role of fintech innovations in reshaping financial inclusion. The analysis highlights significant milestones such as record-breaking daily transaction volumes and expanding adoption in tier 2 and rural markets. Furthermore, the paper addresses challenges faced by the ecosystem, including cyber security risks and digital literacy gaps, while exploring future opportunities for sustainable and inclusive digital payment growth. The findings provide valuable insights for policymakers, industry



The work is licensed under a [Creative Commons Attribution Non Commercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/)

Vishal Vasa & Hiren Mehta (2025). *The Transformation of Digital Payments in India: A Comprehensive Analysis with Data Insights and Market Trends (2021-2025)*. International Journal of Multidisciplinary Research & Reviews. 4(4). 280-287.

	stakeholders, and researchers interested in the dynamic landscape of India's digital economy.
--	---

Introduction

India has witnessed an unprecedented transformation in its payment landscape over the last decade, driven substantially by the rise of digital payments. This shift is a crucial pillar of the nation's broader Digital India initiative aimed at fostering financial inclusion, economic growth, and a cashless economy. This paper analyzes recent data and trends from 2023 to 2025, providing a thorough understanding of the digital payment ecosystem's current status, growth drivers, challenges, and future outlook.

Literature review

Here is a synthesized literature review on digital payments in India with authors and key findings from recent research papers:

- Siddharth Jain (2023) in the paper "A Study on Digital Payment system and its Future Feasibility in India" highlights India's transition towards a cashless economy driven by demonetization, COVID-19, and government initiatives like NPCI's mobile payment platforms. The study discusses digital payment adoption modes such as mobile banking, wallets, and card payments, while noting challenges like security issues, lack of technological awareness, and high transaction costs especially in rural areas. [iimspune](#)
- Vidya Raisagar (2024) in "UPI: Revolutionizing the digital payment system in India: A critical review" credits demonetization and the Digital India initiative for boosting digital payments. Raisagar presents UPI as an innovative, convenient, and secure system developed by NPCI, but acknowledges ongoing challenges like digital literacy, awareness, and security vulnerabilities, stressing UPI's potential to transform business and consumer payments. [allcommercejournal](#)
- Another comprehensive review titled "The Evolution of Digital Payment Systems in India: A Review" (2025) by an author from S.S. Agrawal College traces the shift from cash to digital transactions facilitated by real-time payment systems, mobile apps, and government initiatives like JAM trinity. It emphasizes the role of demonetization and COVID-19 as catalysts, as well as institutional roles of RBI and NPCI in driving secure, interoperable payment infrastructure. The paper calls for continuous efforts in enhancing financial inclusion, security, and digital literacy. [ijjsi](#)
- Sanghita Roy and Dr. Indrajit Sinha (2014) studied the consumer perspective and growth of e-payment systems in India, noting government reforms like demonetization and Digital India as significant drivers. Their research covered electronic payments phases and noted the



Vishal Vasa & Hiren Mehta (2025). *The Transformation of Digital Payments in India: A Comprehensive Analysis with Data Insights and Market Trends (2021-2025)*. International Journal of Multidisciplinary Research & Reviews. 4(4). 280-287.

decline in cash on delivery in favor of card and online payments, reflecting behavioral changes of Indian consumers.[acadpubl](#)

- From an empirical stance, the working paper “Diffusion of Digital Payments in India” (2024) by a research group linked to ICRIER analyzed PhonePe data to show accelerated adoption post-2018, with COVID-19 boosting penetration across states/districts. It also found socio-economic variation in adoption and emphasized inclusive scale-up of UPI as a digital payment innovation.[icrier](#)

Background and Digital Payment Infrastructure in India

Major government initiatives such as Digital India, the introduction of the Unified Payments Interface (UPI) in 2016 by the National Payments Corporation of India (NPCI), and regulatory measures by the Reserve Bank of India (RBI) have created a robust infrastructure for digital payments. UPI enables multiple bank accounts to be accessed through a single mobile application, facilitating seamless peer-to-peer and merchant transactions.

The RBI’s Digital Payments Index (DPI), launched in 2021 with a base year of 2018, tracks the digital payment ecosystem's penetration and growth. As of March 2025, the DPI touched 493.22, evidencing continuous expansion spurred by supply-side infrastructure and payment performance growth.

Key Digital Payment Platforms and Technologies

- UPI dominates the Indian digital payment ecosystem, accounting for approximately 75% of total digital transaction volume. In FY 2023-24, UPI's transaction volume was approximately 131 billion, valued at about ₹199.9 trillion. By early 2025, daily UPI transactions reached around 675 million, with daily transaction value crossing ₹90,000 crore.
- Other significant instruments include mobile wallets, prepaid payment instruments (PPIs), Immediate Payment Service (IMPS), Bharat Bill Payment System (BBPS), credit and debit cards, and the National Electronic Toll Collection (NETC).

Emerging technologies like AI-driven fraud detection, blockchain solutions for security, biometric authentication, and QR code-based transactions are further innovating the sector.

4. Data Analysis: Growth Trends and Market Statistics

Transaction Volume and Value Growth (FY 2020-25*)

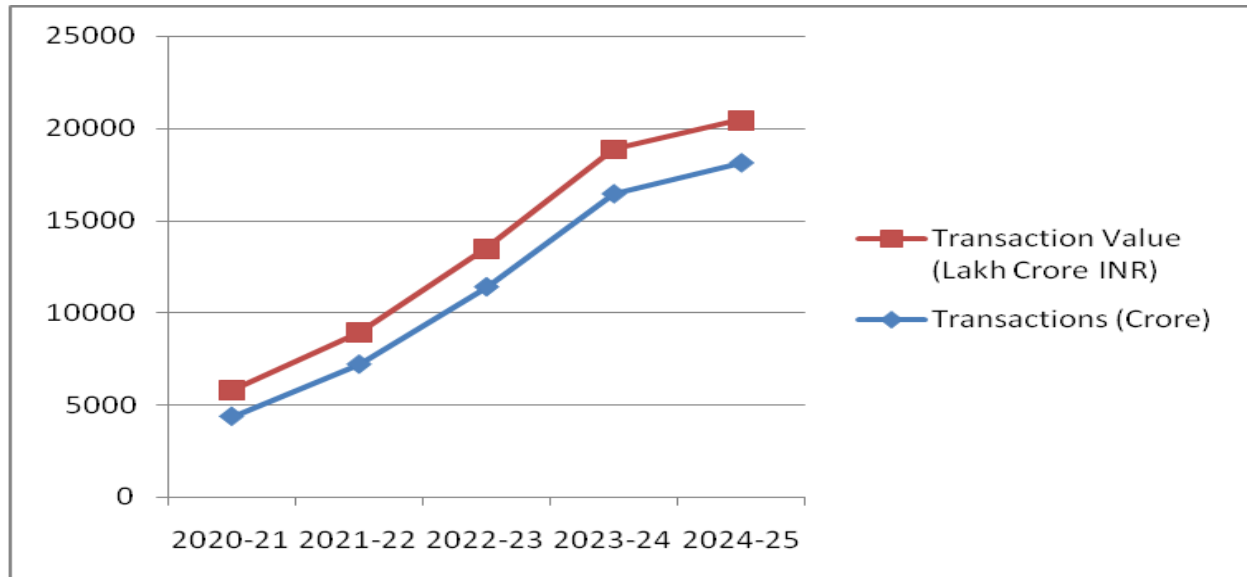
Fiscal Year	Total Digital Payment Transactions (Crore)	Total Transaction Value (Lakh Crore INR)
2020-21	4,371	1,414.58
2021-22	7,198	1,744.01
2022-23	11,394	2,086.85



Vishal Vasa & Hiren Mehta (2025). *The Transformation of Digital Payments in India: A Comprehensive Analysis with Data Insights and Market Trends (2021-2025)*. International Journal of Multidisciplinary Research & Reviews. 4(4). 280-287.

2023-24	16,443	2,428.24
2024-25*	18,121	2,330.72

*Until January 2025



UPI Transaction Volume & Value Growth Forecast (Billion transactions / Trillion INR)

Fiscal Year	Transactions (Billion)	Value (Trillion INR)
22-23	131	200
23-24	190.2	275
24-25 Est	247.2	321
28-29 Est	439	483

- The RBI Digital Payments Index rose by 10.7% year-on-year by March 2025.
- Digital transaction volume grew 42% year-on-year in FY 2023-24.
- The total digital payments market is projected to triple in volume by FY 2028-29 from 159 billion to 481 billion transactions, with the value doubling from ₹265 trillion to ₹593 trillion.

(Charts depicting these trends with forecasts could be included here.)

5. Impact on Financial Inclusion and Economic Growth



Vishal Vasa & Hiren Mehta (2025). *The Transformation of Digital Payments in India: A Comprehensive Analysis with Data Insights and Market Trends (2021-2025)*. International Journal of Multidisciplinary Research & Reviews. 4(4). 280-287.

Digital payments have significantly enhanced financial inclusion in India by extending formal financial services into rural and unbanked segments. UPI and mobile payments facilitate instant, low-cost transactions, boosting economic activity and reducing dependence on cash, which has contributed to greater transparency and formalization of the economy.

The uptake of digital payments correlates with improved GDP growth, as observed in studies on behavioral finance and consumer payment habits. The COVID-19 pandemic accelerated adoption, with contactless and online payments becoming normative.

Challenges and Regulatory Environment

The rapid expansion of digital payments also presents challenges, including cyber fraud and payment-related scams. The government, RBI, and NPCI have enforced measures such as device binding, two-factor authentication, transaction limits, and AI-based fraud detection systems. Awareness campaigns and national cybercrime reporting portals further mitigate risks.

Digital literacy and infrastructure gaps remain in remote areas, and continuous efforts are necessary to bridge these divides and maintain consumer trust.

Future Outlook and Opportunities

The future of digital payments in India is luminous, fortified by ongoing innovations such as AI, blockchain, and 5G technologies. Expansion in merchant acceptance, government welfare disbursements, MSME payments, and e-commerce will drive transaction growth.

Projections estimate UPI daily transactions could hit 1 billion by 2028-29, with a sustained shift toward omnichannel, seamless payment ecosystems integrated into financial services.

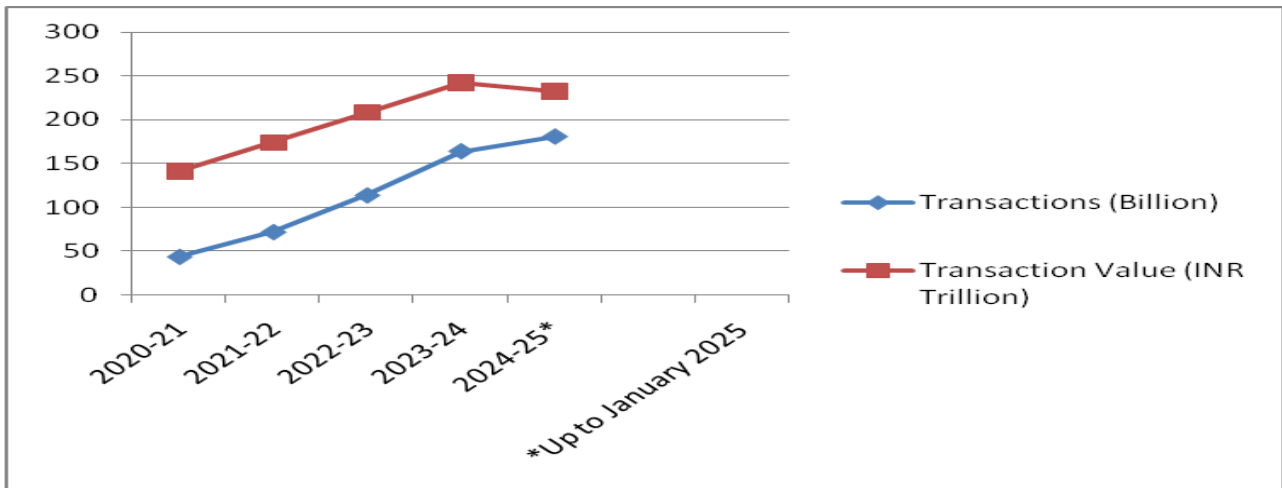
Chart 1: Total Digital Payment Transactions in India (FY 2020-25)

Fiscal Year	Transactions (Billion)	Transaction Value (INR Trillion)
2020-21	43.71	141.46
2021-22	71.98	174.40
2022-23	113.94	208.69
2023-24	164.43	242.82
2024-25*	181.21	233.07

*Up to January 2025



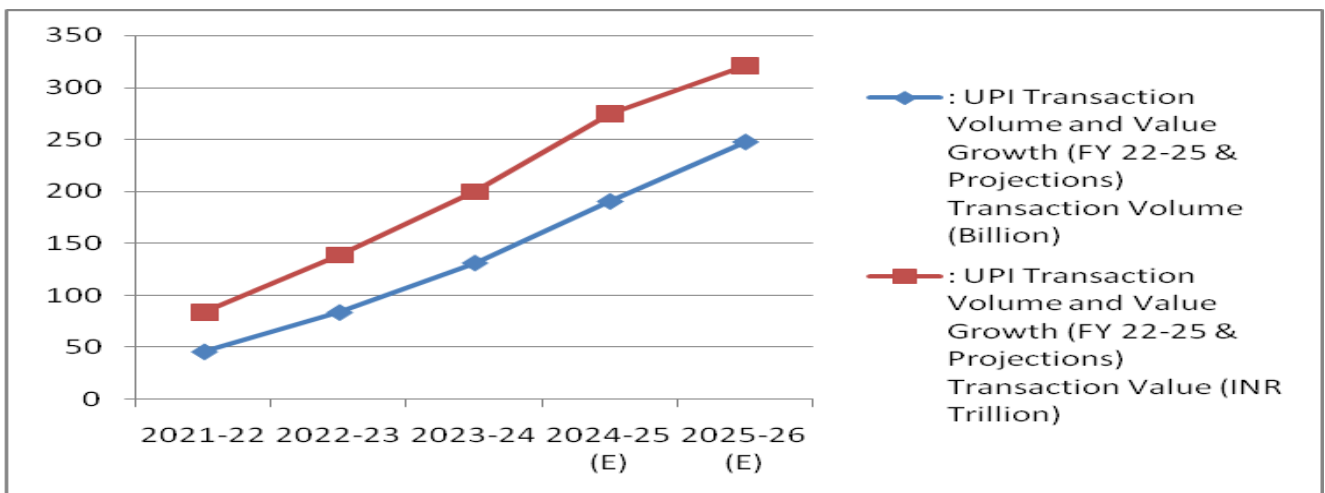
Vishal Vasa & Hiren Mehta (2025). *The Transformation of Digital Payments in India: A Comprehensive Analysis with Data Insights and Market Trends (2021-2025)*. International Journal of Multidisciplinary Research & Reviews. 4(4). 280-287.



: UPI Transaction Volume and Value Growth (FY 22-25 & Projections)

Fiscal Year	Transaction Volume (Billion)	Transaction Value (INR Trillion)
2021-22	46.0	84.0
2022-23	83.76	139.00
2023-24	131.12	199.89
2024-25 (E)	190.20	275.00
2025-26 (E)	247.20	321.00

UPI Transaction Volume and Value Growth (FY 22-25 & Projections)



Vishal Vasa & Hiren Mehta (2025). *The Transformation of Digital Payments in India: A Comprehensive Analysis with Data Insights and Market Trends (2021-2025)*. International Journal of Multidisciplinary Research & Reviews. 4(4). 280-287.

Daily UPI Transactions Milestones

Month/Year	Daily Transactions (Million)	Monthly Transactions (Billion)	Monthly Transaction Value (INR Trillion)
May 2025	602	18.68	25.14
June 2025	613	18.40	24.04

Summary of Key Recent Trends

- India's digital payments transactions crossed **1800 billion** cumulatively by early 2025 across all platforms.
- UPI recorded an average of **613 million transactions daily** in June 2025, the highest globally for real-time payments.
- The total transaction value over UPI crossed **₹24 lakh crore** in June 2025.
- The RBI's Digital Payments Index rose to **493.22** in March 2025 from 445.5 in March 2024, indicating growing adoption, infrastructure, and consumer centricity.
- The Payments Infrastructure Development Fund (PIDF) enabled deployment of **4.77 crore digital touch points** by May 2025 across urban and rural India, especially targeting tier 2-6 cities.
- Forecasts show digital payments volume tripling from 159 billion in FY 23-24 to over 481 billion by FY 28-29, and transaction value doubling to nearly ₹593 trillion.

Conclusion

India's digital payment revolution marks a critical chapter in its economic development, driven by innovative platforms like UPI, regulatory support, and rising digital literacy. Maintaining momentum requires robust infrastructure, security, and inclusion initiatives to ensure benefits reach all economic strata.

AUTHOR(S) CONTRIBUTION

The writers affirm that they have no connections to, or engagement with, any group or body that provides financial or non-financial assistance for the topics or resources covered in this manuscript.



Vishal Vasa & Hiren Mehta (2025). *The Transformation of Digital Payments in India: A Comprehensive Analysis with Data Insights and Market Trends (2021-2025)*. International Journal of Multidisciplinary Research & Reviews. 4(4). 280-287.

CONFLICTS OF INTEREST

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

PLAGIARISM POLICY

All authors declare that any kind of violation of plagiarism, copyright and ethical matters will take care by all authors. Journal and editors are not liable for aforesaid matters.

SOURCES OF FUNDING

The authors received no financial aid to support for the research.

REFERENCES

Reserve Bank of India (2025) Annual Report 2024–25. Mumbai: RBI. Available at: <https://www.rbi.org.in>

National Payments Corporation of India (2025) UPI Ecosystem Statistics. Available at: <https://www.npci.org.in>

Ministry of Finance (2025) Economic Survey 2024–25. New Delhi: Government of India.

Press Information Bureau (2025) Growth of Digital Payments in India. Available at: <https://www.pib.gov.in>

Worldline India (2025) India Digital Payments Report 2025. Available at: <https://worldline.com>

NITI Aayog (2024) Digital Payments in India: Trends and Opportunities. New Delhi.

International Monetary Fund (2024) Fintech and Digital Payments in Emerging Economies. Washington, D.C.

World Bank (2023) Digital Financial Inclusion Report. Washington, D.C.

Business Standard (2025) ‘UPI’s contribution to payments ecosystem reaches 83.4%’, Available at: <https://www.business-standard.com>

Moneycontrol (2025) ‘India leads global real-time payments with 48.5% share’, Available at: <https://www.moneycontrol.com>

Statista (2025) Digital Payments in India – Statistics & Facts. Available at: <https://www.statista.com>

