



India's Digital Payment Shift: From Cash to Digital

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DOI : <https://doi.org/10.5281/zenodo.20065533>

ARTICLE DETAILS

Research Paper

Accepted: 02-04-2026

Published: 25-04-2026

Keywords:

*Digital Payments, UPI,
Financial Inclusion,
Cashless Economy*

ABSTRACT

This study examines the transformation of India's payment system from a cash-dominated economy to a rapidly growing digital payment ecosystem. It analyzes trends in currency in circulation alongside the expansion of digital transactions, with a particular focus on the Unified Payments Interface (UPI). The findings indicate a significant rise in digital payments in terms of volume, value, and user adoption, driven by technological advancements and supportive government initiatives. However, the persistence of cash usage highlights that India is transitioning towards a less-cash economy rather than becoming fully cashless. The study also explores emerging trends such as cross-border payment integration, innovations in merchant acquiring, and evolving regulatory frameworks. It identifies key factors such as cybersecurity, financial inclusion, and user-friendly platforms as essential for sustained growth. The paper concludes that digital payments play a crucial role in promoting transparency, efficiency, and economic development in India's digital transformation journey.



1. Introduction

The rapid advancement of technology has significantly transformed the way financial transactions are conducted, leading to the widespread adoption of digital payment systems. With the expansion of electronic commerce (e-commerce), there has been a growing demand for payment methods that are not only convenient but also secure (Bećirović, 2014). The emergence of digital business has disrupted traditional business models and introduced innovative ways of conducting transactions, particularly in the banking sector (Sardana & Singhania, 2018). This transformation has led to the concept of digital banking, which encompasses a wide range of services such as internet banking, mobile banking, automated teller machines (ATMs), electronic fund transfers, and card-based transactions.

In India, the evolution of digital payments has been driven by both technological advancements and policy initiatives. The enactment of the Information Technology Act, 2000 marked the beginning of internet-based banking services in the country (Sonia Dara, 2018). Since then, the financial sector has undergone substantial reforms, especially since the 1990s, with a focus on deregulation, increased competition, and adoption of global best practices. The Reserve Bank of India (RBI) has played a pivotal role in this transformation by introducing various payment system vision documents and regulatory frameworks, including the Payment and Settlement Systems Act, 2007, to ensure the safety, efficiency, and accessibility of digital transactions.

Furthermore, government initiatives such as the Digital India programme launched in 2015 have accelerated the shift towards a “faceless, paperless, and cashless” economy. Policy measures like demonetization in 2016 and the implementation of the Goods and Services Tax (GST) in 2017 further encouraged the adoption of digital payment methods. As a result, India has witnessed a significant increase in the usage of digital payment systems such as Unified Payments Interface (UPI), National Electronic Fund Transfer (NEFT), Real Time Gross Settlement (RTGS), Immediate Payment Service (IMPS), mobile wallets, and Aadhaar-enabled payment systems (Angamuthu 2020).

The growth of digital payments has contributed to greater transparency, reduced transaction costs, improved financial inclusion, and enhanced efficiency in the financial system. Notably, the COVID-19 pandemic accelerated the adoption of contactless and digital payment methods, as consumers increasingly preferred safer and more convenient transaction modes. According to the Reserve Bank of India (RBI, 2025), digital payment transactions in India have increased more than tenfold since 2016, highlighting the rapid pace of digital transformation in the country (Dipak Kumar Das, 2025).



In conclusion, technological advancements and supportive policy measures have significantly accelerated the growth of digital payments in India. The shift from traditional banking to digital platforms has enhanced efficiency, transparency, and financial inclusion. Government initiatives and regulatory frameworks have played a crucial role in promoting digital adoption across the country. The rapid expansion of systems like the Unified Payments Interface reflects the changing preferences of consumers towards convenient and secure transactions. However, this transformation is an ongoing process shaped by evolving technologies and user needs. Overall, digital payments are becoming a cornerstone of India's modern financial system.

2. Review of Literature

The existing body of literature highlights the rapid growth and increasing significance of digital payment systems in India, while also emphasizing the challenges associated with their widespread adoption. Gogoski (2012) emphasized that payment systems form the backbone of all monetary economies, whether developed or developing, underlining their critical role in ensuring economic stability and smooth financial transactions. Kushwaha et al. (2018) examined the impact of demonetization on the Indian economy and noted that the policy aimed to promote a cashless economy by increasing transparency and enhancing tax compliance. The study found that reduced cash transactions led to a surge in alternative digital payment methods such as online banking, mobile applications, e-wallets, and card-based payments. Nilekani et al. (2019) defined digital payments as transactions conducted through electronic means where both the sender and receiver use digital platforms. They further argued that digital payments are essential for economic development and financial inclusion, although achieving a fully digital ecosystem requires coordinated efforts from all stakeholders. Bećirović (2014) highlighted the declining use of paper currency due to technological innovation and the growth of e-commerce, emphasizing that successful e-money systems must ensure security, anonymity, portability, and cost efficiency. Reddy and Rakesh (2019) found that customers are increasingly adopting digital banking technologies and are generally satisfied with the services provided, indicating a positive shift towards a cashless economy. However, some scholars present a critical perspective. Pichler et al. (2018) argued that digital money cannot fully replace paper currency, as it does not simultaneously fulfill the traditional functions of money, medium of exchange, store of value, and unit of account. Adding a broader perspective, Tomi Dufva and Mikko Dufva (2019) stressed the need for a deeper and more holistic understanding of digitalization beyond purely rational frameworks to comprehend its future implications. Pizzol et al. (2018) explored the integration of digital transaction data



with environmental analysis, demonstrating how digitalization can enable innovative approaches such as measuring personalized environmental footprints based on consumption patterns.

The review of literature indicates that digital payment systems have gained significant importance in enhancing economic efficiency, transparency, and financial inclusion. While several studies highlight the rapid growth and positive adoption of digital payments, others emphasize the persistence of cash and structural challenges. The literature also points out the role of technological innovation, policy support, and user acceptance in driving digital transformation. Overall, it suggests that digital payments are evolving steadily, but require coordinated efforts to achieve a fully inclusive digital economy.

3. Objectives

The major objective of the study is to examine the transformation of India's payment system from cash-based transactions to a digital payment ecosystem. It focuses on analyzing the trends in currency in circulation to understand the persistence of cash alongside digital growth. The study also aims to evaluate the growth and performance of digital payment systems, particularly the Unified Payments Interface, in terms of transaction volume, value, and growth rates. Further, it seeks to analyze emerging trends such as cross-border payments, merchant acquiring developments, and regulatory changes influencing the digital payment landscape. Additionally, the study aims to identify critical success factors like cybersecurity, financial inclusion, and user experience that determine the future of digital payments. Finally, it intends to assess how these developments contribute to India's transition towards a less-cash economy and support the vision of Viksit Bharat @2047.

4. Methodology

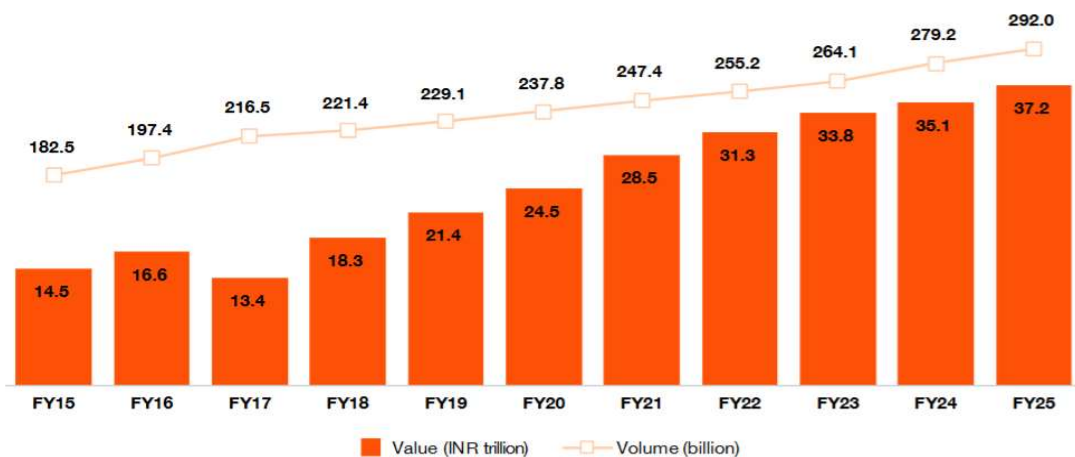
The present study is based on secondary data collected from reliable and authoritative sources. The data includes key indicators such as currency in circulation, volume and value of digital payment transactions, UPI transaction volume and value, daily UPI transactions, UPI growth rates, and growth trends across various payment instruments. In addition, information on emerging trends in UPI, merchant acquiring, regulatory developments, and critical success factors for the future of digital payments has also been considered. The data has been sourced from publications and reports of the Reserve Bank of India (RBI), National Payments Corporation of India (NPCI), PwC analysis reports, and The Indian Payments Handbook 2025–2030. The collected data has been analyzed to understand trends, growth patterns, and the evolving landscape of digital payment systems in India.



5. Results Analysis

The figure 1 shows a steady increase in currency in circulation from FY15 to FY25 in both value and volume. Although there is a slight decline during demonetization (FY17), cash usage quickly recovers and continues to grow. This indicates that despite the rapid rise of digital payments, cash remains widely used in India. Thus, the shift “From Cash to Click” reflects a move towards a less-cash economy, where digital payments are increasing but cash still plays a significant role. The continuous rise in currency also reflects economic growth and increased transaction activity. The higher growth in value compared to volume suggests the use of higher denomination notes or inflationary trends. Overall, the data highlights the coexistence of cash and digital payment systems in India’s evolving financial landscape.

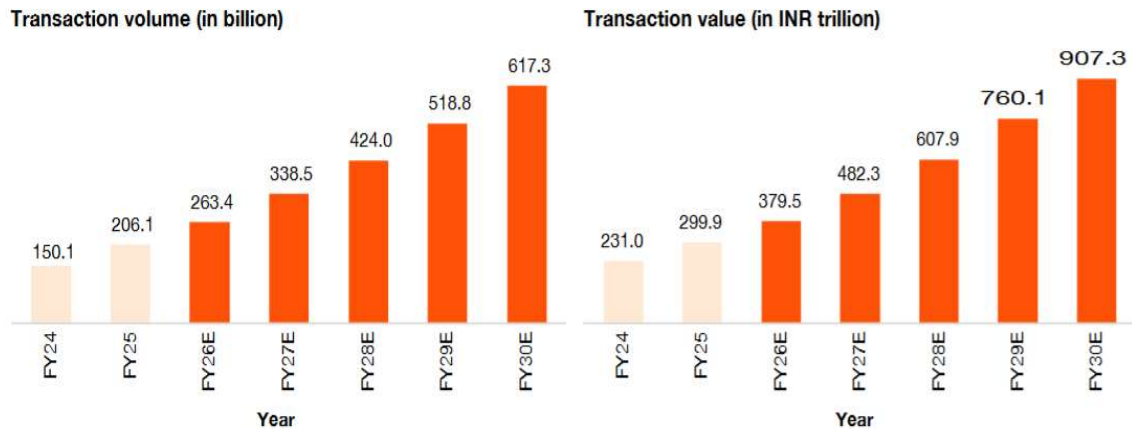
Figure 1. Trend in Currency in Circulation in India



Source: RBI; *The Indian Payments Handbook 2025-2030*.

The figure 2 shows a steady and significant increase in digital payment transactions in both volume and value from FY24 to FY30E. Transaction volume rises from 150.1 billion to 617.3 billion, while transaction value increases from ₹231 trillion to ₹907.3 trillion, indicating rapid expansion of digital payments in India. This growth reflects the increasing adoption of digital platforms such as UPI, mobile banking, and online transactions. The sharp upward trend suggests improved digital infrastructure, government support, and growing user trust in cashless transactions. Overall, the graph strongly supports the shift “From Cash to Click”, highlighting that digital payments are growing at a much faster pace and becoming a dominant mode of transaction in India’s financial system.

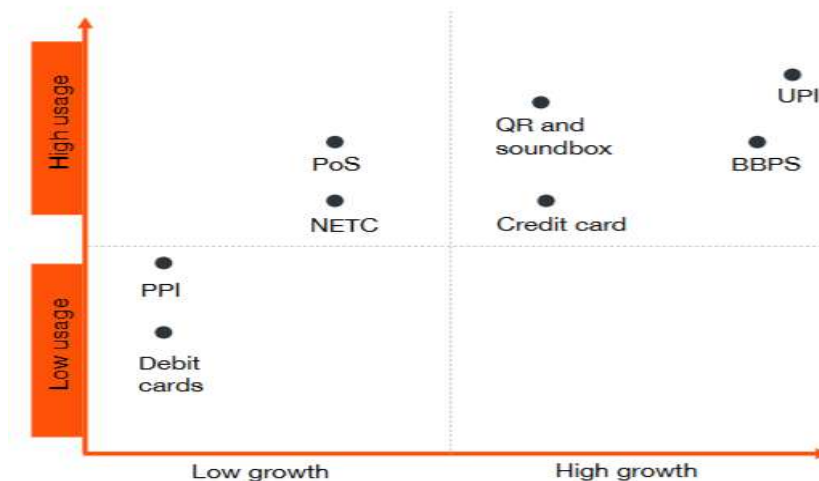
Figure 2. Trend in Digital Payments: Volume and Value Analysis



Source: PWC; The Indian Payments Handbook 2025-2030

The figure 3 classifies various payment instruments based on their growth and usage levels. Unified Payments Interface is positioned in the high growth high usage quadrant, indicating it is the most dominant and rapidly expanding digital payment method in India. Instruments like QR & sandbox, BBPS, and credit cards also show high growth, reflecting increasing digital adoption. Meanwhile, debit cards and PPI fall under low usage and low growth, suggesting a decline in their relative importance. Overall, the graph highlights a clear shift “From Cash to Click”, where UPI and related digital platforms are leading India’s transition towards a digital-first payment ecosystem.

Figure 3. Payment Instruments with growth and Adoption

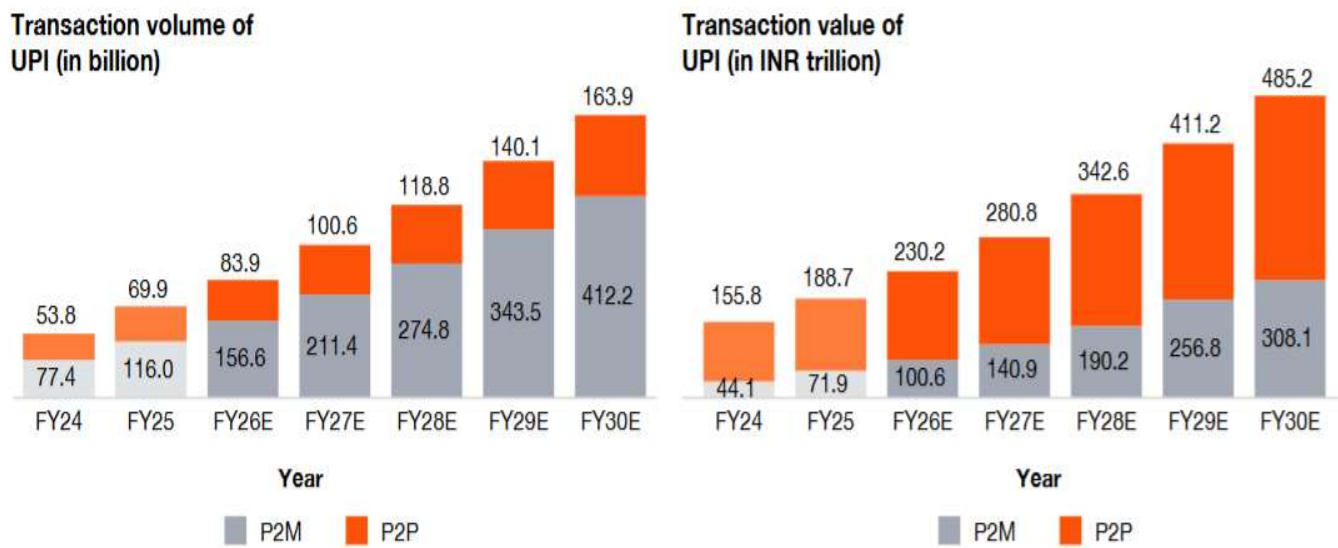


Source: RBI; NPCI; PWC; The Indian Payments Handbook 2025-2030.



The figure 4 shows a rapid and continuous increase in UPI transactions in both volume and value from FY24 to FY30E. Transaction volume rises significantly, while transaction value also shows a strong upward trend, indicating growing reliance on digital payments. Both P2M (Person-to-Merchant) and P2P (Person-to-Person) transactions are increasing, with P2M showing faster growth, reflecting the expansion of merchant adoption. This indicates that UPI is not only used for transfers but also widely accepted for daily payments. Overall, the graph highlights that Unified Payments Interface is the key driver of India’s digital payment transformation, strongly supporting the shift “From Cash to Click.”

Figure 4. Trend in UPI Transactions: Volume and Value Analysis

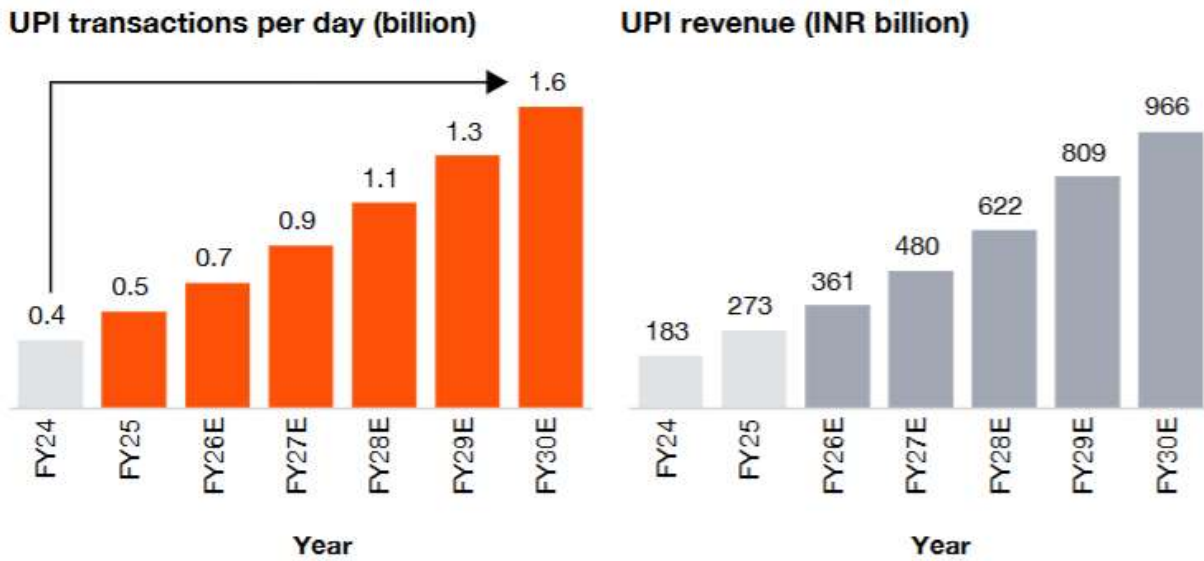


Source: RBI; NPCI; PWC; The Indian Payments Handbook 2025-2030

The figure 5 shows a steady and significant rise in daily UPI transactions from 0.4 billion in FY24 to 1.6 billion in FY30E, indicating rapid adoption of digital payments. At the same time, UPI revenue increases sharply from ₹183 billion to ₹966 billion, reflecting growing transaction value and monetization. This trend highlights the expanding usage of Unified Payments Interface in everyday transactions, especially for small and frequent payments. The parallel growth in transactions and revenue indicates improved efficiency and scalability of the system. Overall, the data reinforces the shift “From Cash to Click”, showing that UPI is becoming a high-volume, high-value backbone of India’s digital payment ecosystem.



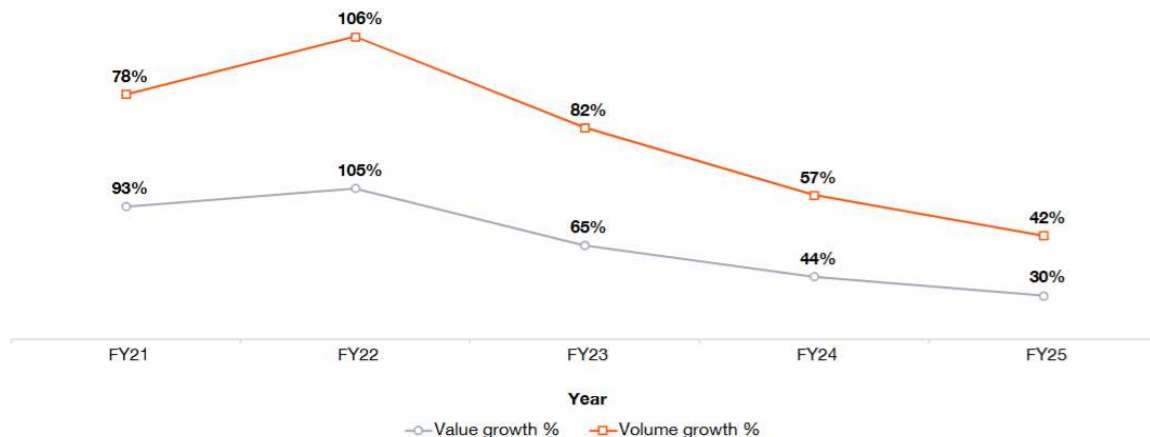
Figure 5. UPI Transactions per day and UPI Revenue



Source: RBI; NPCI; PWC; The Indian Payments Handbook 2025-2030

The figure 6 shows that the growth rate of Unified Payments Interface has been gradually declining in both value and volume from FY21 to FY25. Value growth decreases from 93% to 30%, while volume growth falls from 78% to 42% over the period. This decline does not indicate slowdown, but rather market maturity, as UPI had very high growth in its early stages. As adoption increases, the growth rate naturally stabilizes. Overall, UPI continues to grow strongly, reinforcing the shift “From Cash to Click”, but now at a more stable and sustainable pace.

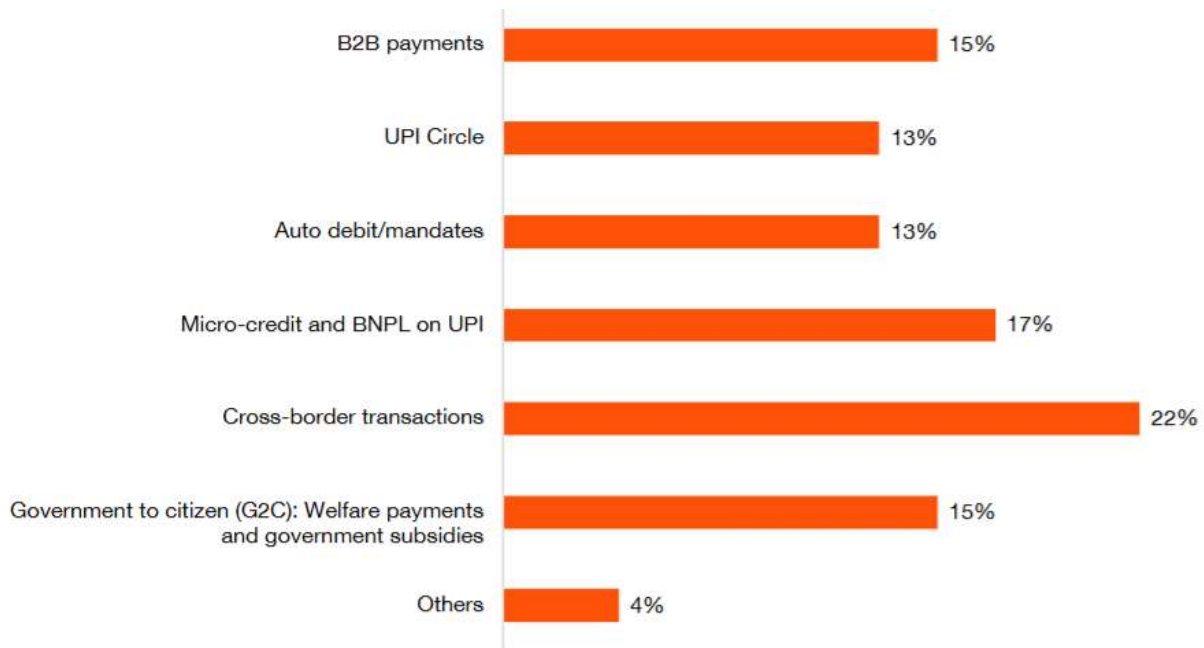
Figure 6. UPI Growth rate trends



Source: The Indian Payments Handbook 2025-2030

The figure 7 highlights key emerging areas in Unified Payments Interface usage. Cross-border transactions (22%) hold the largest share, indicating growing global expansion of UPI. This is followed by micro-credit & BNPL (17%), showing increasing integration of financial services with digital payments. Other segments like B2B payments (15%), G2C payments (15%), and UPI Circle & auto-debit (13% each) reflect diversification of UPI beyond simple transactions into business, government, and recurring payments. Overall, the data shows that UPI is evolving into a multi-functional financial platform, strengthening India's transition "From Cash to Click."

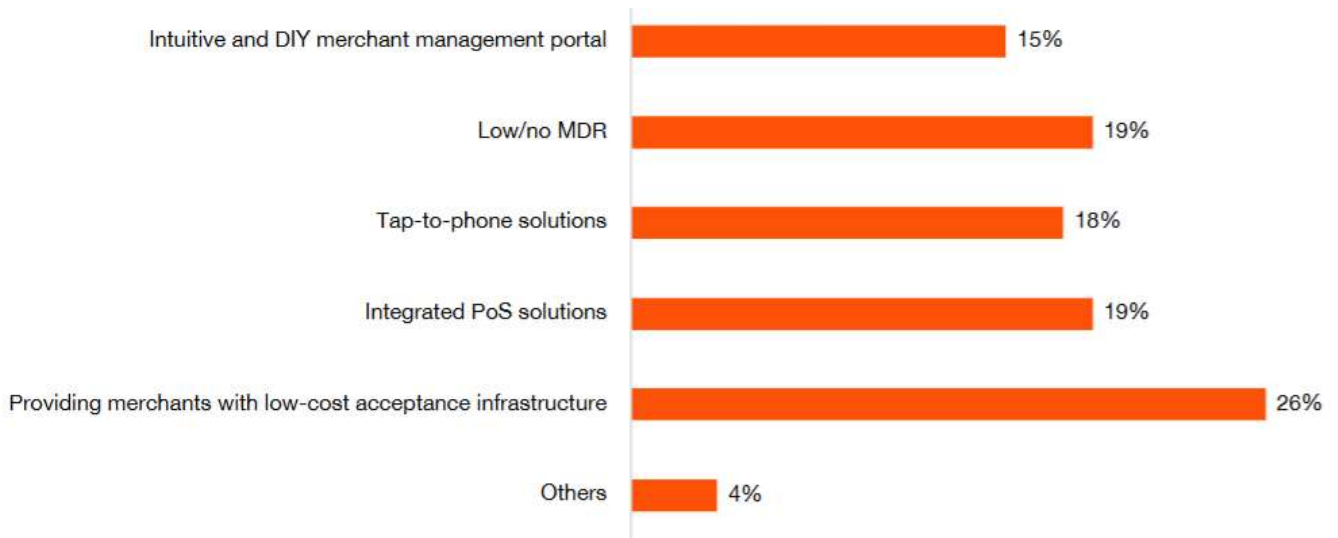
Figure 7. Emerging Trends on UPI



Source: The Indian Payments Handbook 2025-2030

The Figure 8 shows that providing low-cost acceptance infrastructure (26%) is the most important trend, highlighting the focus on increasing merchant participation in digital payments. Low/No MDR (19%) and integrated PoS solutions (19%) also play a key role in encouraging businesses to adopt digital systems. Innovations like tap-to-phone solutions (18%) and DIY merchant management portals (15%) indicate a shift towards easy, cost-effective, and technology-driven payment acceptance. Overall, these trends support the growth of Unified Payments Interface and strengthen the move "From Cash to Click" by making digital payments more accessible and convenient for merchants.

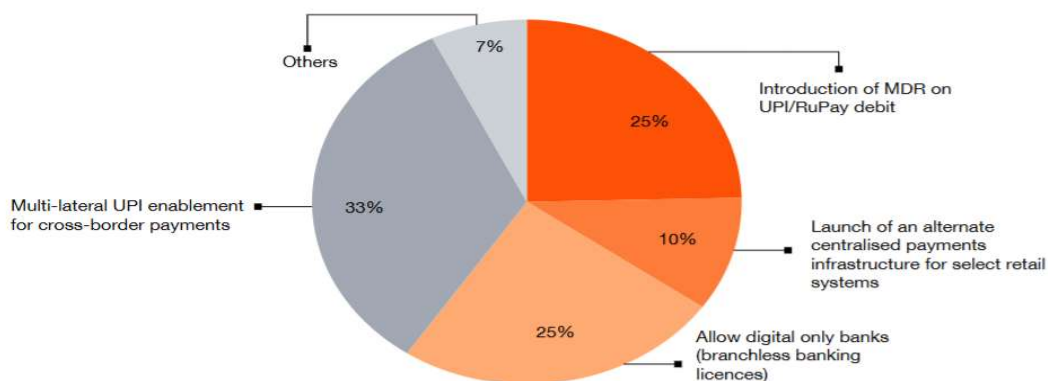
Figure 8. Trends in Merchant Acquiring



Source: *The Indian Payments Handbook 2025-2030*

The Figure 9 shows that multi-lateral UPI enablement for cross-border payments (33%) is the most significant regulatory trend, indicating efforts to expand Unified Payments Interface globally. This reflects India’s ambition to make UPI an international payment system. Other key trends include introduction of MDR on UPI/RuPay debit (25%) and allowing digital-only banks (25%), which aim to improve sustainability and promote innovation in the digital payment ecosystem. The launch of alternate centralized payment infrastructure (10%) further strengthens system efficiency and resilience. Overall, these regulatory developments support the transition “From Cash to Click” by enhancing scalability, innovation, and global reach of digital payments.

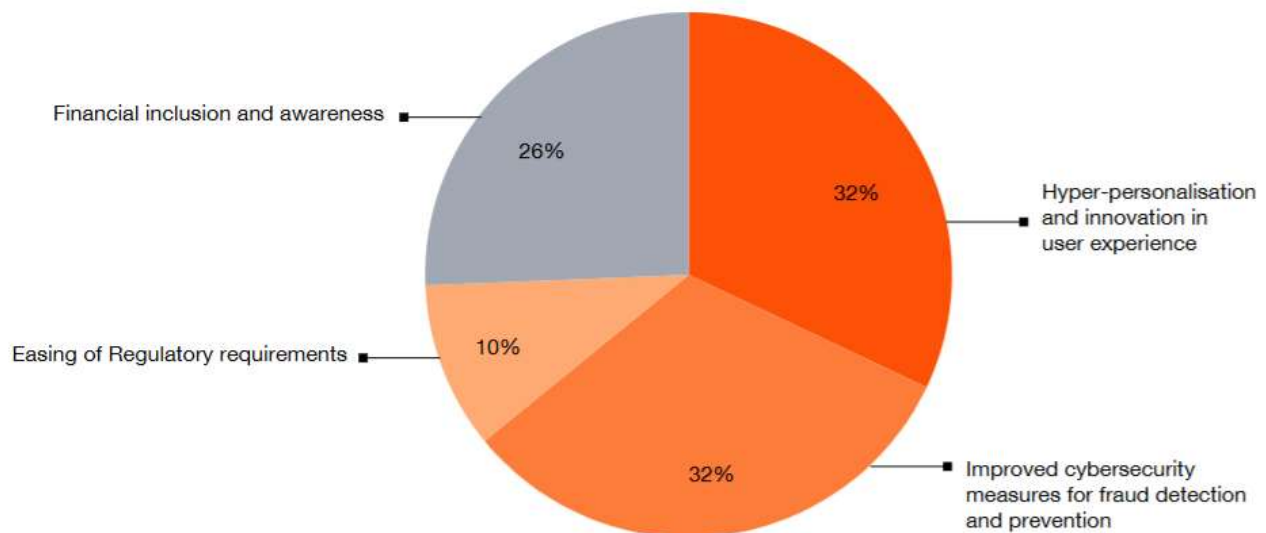
Figure 9. Regulatory Trend



Source: *The Indian Payments Handbook 2025-2030*

The Figure 10 shows that hyper-personalization & user experience (32%) and improved cybersecurity (32%) are the most critical factors for the future of digital payments. This highlights the need for secure, user-friendly, and innovative platforms to sustain growth. Financial inclusion and awareness (26%) also play a major role, emphasizing the importance of expanding digital payment access to rural and underserved populations. Meanwhile, easing regulatory requirements (10%) can further support innovation and adoption. Overall, these factors are essential for strengthening Unified Payments Interface and ensuring a sustainable transition “From Cash to Click” in India’s digital economy.

Figure 10. Critical Success Factors for the Future of Digital



Source: The Indian Payments Handbook 2025-2030

6. Conclusion with Policy Suggestions

The study concludes that India is undergoing a significant transformation in its payment ecosystem, steadily moving “From Cash to Click.” The rapid growth of digital payment systems, particularly the Unified Payments Interface, reflects increasing adoption driven by technological advancements, supportive government initiatives, and changing consumer behavior. However, the continued rise in currency in circulation indicates that India is transitioning towards a less-cash economy rather than a completely cashless one. The coexistence of cash and digital payments highlights structural challenges such as digital divide, financial literacy gaps, and uneven infrastructure development. This transformation is closely aligned with the national vision of Viksit Bharat @2047, which aims to make India a fully developed, inclusive, and technologically advanced economy by the 100th year of



independence. Digital payments play a crucial role in achieving this vision by promoting transparency, efficiency, financial inclusion, and economic growth.

To support this transition and achieve the goals of Viksit Bharat, several policy measures are essential. First, strengthening digital infrastructure in rural and remote areas is necessary to ensure inclusive access. Second, enhancing cybersecurity frameworks will build trust and protect users from fraud risks. Third, promoting financial literacy and awareness can accelerate adoption among underserved populations. Fourth, a balanced regulatory framework including clarity on MDR and support for fintech innovation will ensure long-term sustainability. Fifth, expanding low-cost merchant acceptance infrastructure will encourage small businesses to adopt digital payments. Finally, promoting cross-border UPI linkages and digital banking innovations will position India as a global leader in digital finance. In conclusion, digital payments are not just a technological shift but a key driver in realizing the broader vision of a developed, inclusive, and digitally empowered India under Viksit Bharat @2047.

References

- Angamuthu (2020). Growth of Digital Payments in India. *NMIMS Journal of Economics and Public Policy*. 5(4), 31-41.
- Bećirović, S. (2014). Challenges facing e-money. *University Journal of Information Technology and Economics*.1, 28–36.
- Dara, S. (2017). Digitalisation in Indian banks. *World Wide Journal of Multidisciplinary Research and Development*, 3(11), 224-225.
- Dipak Kumar Das (2025). *The rise of digital payment systems in India: Trends, challenges, and future prospects*. *Int. J. Res. Manage*. 7(2). 1150-1154.
- Dufva, T., & Dufva, M. (2019). Grasping the future of the digital society. *Futures*, 107, 17-28.
- Gogoski, R. (2012). Payment systems in economy-present end future tendencies. *Procedia-Social and Behavioral Sciences*, 44, 436-445.
- Kushwaha, H., Kumar, A., & Abbas, Z. (2018). Impact of demonetisation on Indian economy: A critical study. *International Journal of Management Studies*, 2(7), 25-31.
- Nilekani, Harun khan, Kishore Sansi, Aruna sharma, Sanjay Jain Nandan. (2019). *Report of the high level committee on deepening of digital payment 2019*.



- Reddy P, R. (2019). Challenges in Adoption of New Technologies in Banking Sector–A Study with Reference to Selected Private Banks, Bengaluru. *International Journal of Management*, 10(4).
- Sardana, V., & Singhania, S. (2018). Digital technology in the realm of banking: A review of literature. *International Journal of Research in Finance and Management*, 1(2), 28-32.