

UPSWING OF DIGITAL PAYMENT & UPI IN INDIA – A CASE STUDY

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Abstract

India's Unified Payments Interface (UPI) has emerged as a transformative innovation in the digital payment ecosystem. Introduced by the National Payments Corporation of India (NPCI) in 2016, UPI has brought seamless peer-to-peer and merchant transactions through computer software, cost efficiency, and real-time processing. This research article examines the upswing of digital payments and UPI in India and its contribution to India's growth. It highlights the opportunities, challenges, and future prospects of UPI as a potential global excellence model for digital payments. For this study, secondary data has been used.

Keywords: *digital payment; cashless economy; online banking; real-time payments; UPI.*

1. Introduction

The financial services sector has been significantly influenced by the digital revolution, leading to the widespread adoption of electronic payment systems. With the rise in internet penetration, smartphones, and innovations in financial technology, digital payments have become an integral part of economic transactions at the global level. In India, the Unified Payments Interface has played a crucial role in accelerating this transformation. UPI has expanded beyond domestic settlement and is now growing globally, positioning India as a pioneer in digital payments infrastructure. The digital payment system has promoted a cashless economy and boosted financial inclusion. It has also reduced fraud activities and improved transparency.

2. Objectives

To study the upswing of digital payments and UPI in India.

3. Methodology

For this research paper, secondary data sources have been used.

4. Review of Literature

According to Astogi (2019), digital payment methods like online banking and mobile wallets have greatly shortened transaction times and increased the effectiveness of financial services. The author pointed out that UPI differs from previous electronic payment methods due to its interoperability and real-time transaction capacity.

A report by Gupta & Arora (2020) claims that UPI has emerged as a key driver of India's shift to a cashless economy. According to their research, UPI's zero-cost structure, QR-based payments, and user-friendly design encouraged businesses and customers to switch from cash to digital payment methods.

Additionally, a study by Singh (2022) showed that UPI's encryption and two-factor authentication have increased user confidence, which has aided in its quick growth. According to the author, UPI is now a widely accepted real-time payment methodology.

Despite the achievements, cybersecurity threats, digital illiteracy, and infrastructure deficiencies in rural areas were noted by a number of researchers, including Menon (2022). These studies highlight the necessity of ongoing technology advancements and awareness campaigns in order to maintain the rise of digital payments.

5. Analysis

Digital payments have encouraged innovation in the financial sector and led to the development of UPI, BHIM, FASTag, Aadhaar-enabled payment systems, etc. It also helps the government collect taxes faster and more accurately. Furthermore, it has reduced leakages in subsidies and welfare payments.

Digital payment has promoted a cashless economy. It has reduced the dependence on physical cash and minimized issues like corruption, black money, and tax evasion. This has led to more transparent and accountable transactions. Digital payments also help remote and rural populations in accessing banking services through mobile wallets and UPI. Even individuals without formal bank accounts can make transactions using simplified payment systems.

Digital payments have made the payment process more convenient and faster. Payments can be made at any time and from anywhere without any hindrance. For individual payments, there is no need to visit banks frequently. Instant transfers through UPI, QR codes, and mobile wallets have made transactions extremely simple and quick.

Many digital payment methods are free or low-cost, which has reduced transaction costs and saved time for both consumers and businesses. Electronic records help in tracking transactions easily. Digital payments also enhance security through multi-factor authentication (OTP) and biometric verification. They enable better monitoring against illegal activities.

Digital payment systems promote safety and hygiene by minimizing physical contact and the handling of cash, especially during COVID-19. Payment processes no longer require individuals to visit banks or ATMs.

Digital literacy among youth has increased due to the widespread use of digital payment tools. This not only empowers young people but also creates opportunities for employment and entrepreneurship.

The rapid growth of financial technologies has stimulated digital payment adoption in India. Companies such as Google Pay, PhonePe, and Paytm have enabled UPI-based digital payment systems.

6. Statistical Analysis of Digital Payment in India

By the calendar year 2023, digital payments grew up to 99.7% (transaction volume) and 97.4% (value). By the year 2024, digital payments had risen to 99.8% (volume) and 97.7% (value).

Table 1. Dominance of UPI

Year	Share of UPI in Digital Payment (by Volume)
2019	34.1%
2024-25	85.4%

UPI and Digital Payment Statistics for India (2024–2025)

1. In India, the use of UPI has been the main driver of the exponential increase in digital payments.
2. Total Payments Made Online (FY 2023–2024): Approximately 18.74 billion transactions totaling about ₹365.9 trillion were made.
3. UPI Dominance: In the first half of 2025, UPI accounted for 85% of all digital transactions by volume, making it the cornerstone of the Indian digital payment ecosystem.

4. Current UPI Monthly Data: A record 16.58 billion transactions totaling ₹23.49 trillion (about \$280 billion) were handled by UPI in October 2024.
5. Annual UPI Data (CY 2024): Over 155.47 billion transactions totaling ₹223 trillion were conducted by UPI between January and November 2024.
6. Growth: From FY 2017–18 to FY 2023–2024, the volume of digital payments climbed at a CAGR of 44%, while UPI transactions grew at a CAGR of 129%.

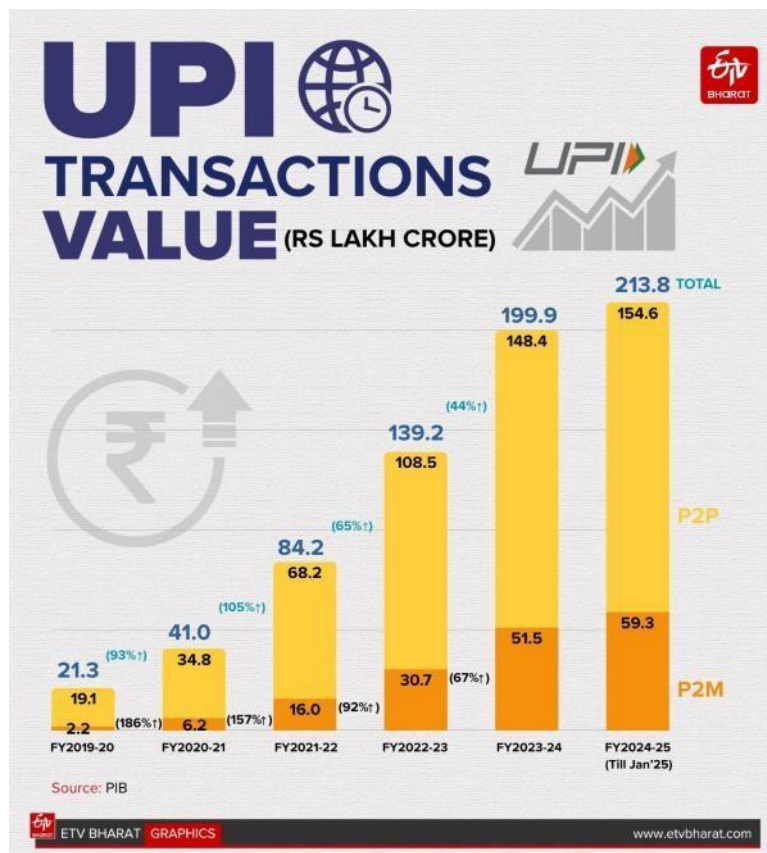


Figure 1. Digital Payments & UPI Insights

India's Digital Payments Market.

India's digital payment ecosystem has grown rapidly.

India has the highest transaction volume globally, overtaking other countries.

In terms of volume, India ranks first with over 3 times the volume of the closest rival (2023/2024).

Table 2. UPI (Unified Payments Interface) – Key Statistics

Year/Period	Value
FY 2020–21	41 lakh crore
FY 2021–22	₹84 lakh crore
June 2024	12.45 billion
Annual Value (2024)	₹182 lakh crore

UPI has gained global recognition due to:

- Zero fees
- High scalability and reliability
- Low cost of implementation
- Strong security measures
- Real-time settlement capabilities
- Ability to link multiple bank accounts
- 24/7 transaction availability

Google Pay and PhonePe also provide features such as bill payments, QR-based merchant payments, and easy fund transfers, making them attractive alternatives to traditional cash transactions.



Global Position of India in Digital Payments

- India leads the world in real-time digital transactions.
- In 2023, India recorded 25.5 billion transactions, the highest globally.
- China follows with 17.7 billion transactions.

UPI Global Expansion

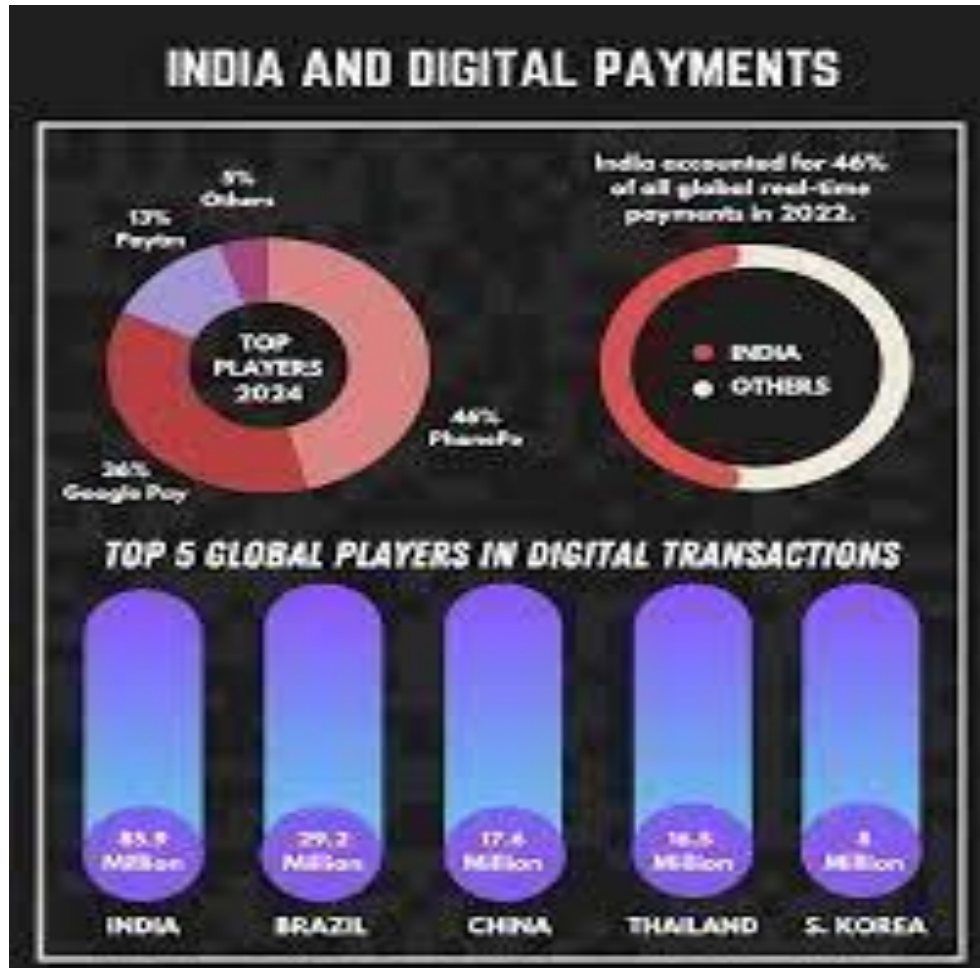
UPI is currently operational or accepted in several countries including:

- UAE
- Singapore
- France
- Thailand
- Bhutan
- Nepal
- Sri Lanka
- Mauritius

These countries support UPI for:

- Person-to-person payments

- Merchant payments
- Seamless cross-border transactions



Reasons for UPI’s Global Success

- Instant payments
- Zero or very low transaction cost
- QR-based interoperability
- Government support
- High smartphone and internet penetration

Future aspects of digital transformation market



The above diagram shows that from the year 2020 the digital transformation has shown drastic growth till 2025 and it is predicted that in the future the digital transformation will surge tremendously.

7. Conclusion

The Unified Payments Interface (UPI) has played a major role in the rapid growth of digital payments in India, transforming the country's financial landscape and positioning and it is as a global leader in real-time transactions. India consistently records the highest digital payment volume in the world, reflecting widespread adoption, strong government support, and increasing digital literacy. UPI's success is not only national but global, as several countries have started integrating or accepting UPI for cross-border and merchant payments, highlighting India's technological capacity to build a quick, safe, and affordable payment infrastructure. This study has highlighted that in India digital payments and UPI have surged and shown tremendous growth till 2025 and also it is believed and foretasted that in future it will occupy a greater level growth.

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