



Year-on-Year Growth and Expansion of Unified Payments Interface (UPI) Transactions in India

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ABSTRACT

The Unified Payments Interface (UPI) has emerged as a major component of India's digital payment ecosystem since its introduction in 2016. The present study examines the development of UPI in India using exclusively secondary data. The study focuses on three dimensions: year-on-year growth in UPI transaction volume, year-on-year growth in transaction value, and expansion of participating banks in the UPI ecosystem. Data are collected from official sources, primarily the National Payments Corporation of India (NPCI) and Government of India publications. The study covers the period from FY 2016–17 to FY 2025–26. The analysis indicates a substantial increase in both transaction volume and transaction value over the study period. Although the annual percentage growth rate has moderated in recent years, the absolute volume and value of UPI transactions continue to increase significantly. At the same time, the number of participating banks has expanded considerably, strengthening the interoperability and reach of the UPI ecosystem. The study concludes that UPI has progressed from an emerging digital payment mechanism to a large-scale payment infrastructure in India.

Keywords: UPI, Unified Payments Interface, Digital Payments, Transaction Volume, Transaction Value, Year-on-Year Growth, Participating Banks, NPCI

Introduction

The growth of digital payments has significantly transformed India's financial ecosystem. Among the various digital payment systems developed in the country, the Unified Payments Interface (UPI) has emerged as one of the most important. UPI was introduced by the National Payments Corporation of India (NPCI) in 2016 to facilitate instant and interoperable bank-account-based payments. The system enabled users to make payments through mobile applications without requiring traditional banking details for every transaction. Since its introduction, UPI has experienced extraordinary growth. Annual transaction volume increased from 1.78 crore transactions in FY 2016–17 to 24,161.69 crore transactions in FY 2025–26. Transaction value increased from ₹0.07 lakh crore to ₹314.23 lakh crore over the same period.

The expansion of UPI has also been accompanied by an increase in the number of participating banks. This institutional expansion has contributed to the interoperability and accessibility of the payment system. Therefore, analysing UPI year by year provides a better understanding of how rapidly the system has developed.

Review of Literature

Sl. No.	Author(s)	Year	Title of the Study	Relevance to Present Study
1	Kumarasamy, S. K.	2026	<i>Trajectory of India's Digital Payment Revolution: A Longitudinal Analysis of UPI Growth (2016–2026)</i>	Examines UPI growth over a decade using transaction volume, transaction value and number of banks live on UPI. It is highly relevant to the present longitudinal study.
2	Gopika, C. G., Biju, A. V., Sasidharan, A., & Sarpong-Kumankoma, E.	2026	<i>Government-led Design and Growth of India's UPI Ecosystem: A Time Series Analysis of Associated Factors</i>	Analyses the growth of UPI transactions using time-series data and examines factors associated with transaction growth.

Sl. No.	Author(s)	Year	Title of the Study	Relevance to Present Study
3	Marian, V. M.	2026	<i>Growth, Trend and Composition of Retail Digital Payments in India: A Secondary Data Analysis of the Unified Payments Interface, 2016–17 to 2025–26</i>	Directly examines UPI using annual secondary data and analyses growth and trends across financial years.
4	Medhari Sai Akshitha & Naga Sulochana	2026	<i>The Growth of UPI Transactions and the Cashless Economy in India: A Study with Reference to the Reserve Bank of India</i>	Studies year-wise and month-wise growth in UPI transaction volume and value using RBI and NPCI secondary data.
5	Motheram, A., & Buteau, S.	2026	<i>Supply Side Drivers of Digital Payment Adoption in India</i>	Examines the UPI ecosystem across Indian districts and highlights the role of merchant networks and digital infrastructure in digital-payment expansion.
6	Gopika, C. G., Biju, A. V., Sasidharan, A., & Sarpong-Kumankoma, E.	2026	<i>Government-led Design and Growth of India's UPI Ecosystem: A Time Series Analysis of Associated Factors</i>	Provides evidence on the evolution of UPI transaction activity and the development of the ecosystem over time.
7	<i>Adoption of UPI among Indian Users: Using Extended Meta-UTAUT Model</i>	2024	<i>Adoption of UPI among Indian Users: Using Extended Meta-UTAUT Model</i>	Examines UPI usage behaviour and adoption, providing background for understanding the increasing transaction activity on the platform.
8	<i>Exploring the Determinants of Adoption of Unified Payment Interface (UPI) in India: A Study Based on Diffusion of Innovation Theory</i>	2022	<i>Exploring the Determinants of Adoption of Unified Payment Interface (UPI) in India</i>	Examines factors influencing UPI diffusion and adoption, supporting the broader explanation of UPI's rapid expansion.
9	National Payments Corporation of India (NPCI)	2023	<i>The Rise and Evolution of India's Digital Finance</i>	Documents the development of India's digital-payment ecosystem and the increasing role of UPI in transaction growth and institutional participation.
10	Government of India	2026	<i>UPI Completes 10 Glorious Years: Emerges as World's Largest Real-Time Payments Platform</i>	Provides official decade-level evidence on UPI transaction volume, transaction value and expansion of participating banks.

Statement of the Problem

The Unified Payments Interface (UPI) has emerged as a significant component of India's digital payment ecosystem, witnessing substantial growth in both transaction volume and value since its introduction. However, assessing UPI's development solely on the basis of recent or single-year transaction figures does not adequately capture its long-term growth trajectory and structural expansion.

A systematic **year-wise and year-on-year analysis** is therefore essential to understand the extent and pattern of UPI's development. In particular, it is important to examine the changes in **transaction volume, transaction value, annual growth rates, and the expansion of participating banks** within the UPI ecosystem.

Accordingly, the present study analyses the **year-wise growth and development of UPI** by examining these key dimensions, thereby providing a comprehensive understanding of its expansion and evolution over the study period.

Research Gap

Existing research and discussions on the Unified Payments Interface (UPI) have largely focused on its **current transaction scale, technological characteristics, consumer adoption, and role in the digital payment ecosystem**. While these studies provide valuable insights into the growth and significance of UPI, relatively limited attention has been given to its **longitudinal development over an extended period**.

In particular, there is a need for a focused year-wise analysis that simultaneously examines:

- **Year-on-year growth in transaction volume;**
- **Year-on-year growth in transaction value; and**
- **Expansion of participating banks within the UPI ecosystem.**

The present study seeks to address this research gap by undertaking a **longitudinal analysis of UPI using official secondary data covering its first decade of development**. This approach provides a systematic assessment of the changing scale, growth pattern, and ecosystem expansion of UPI over time.

Objectives of the Study

1. **To analyse the year-on-year growth in UPI transaction volume in India.**
2. **To analyse the year-on-year growth in UPI transaction value in India.**
3. **To examine the expansion of participating banks in the UPI ecosystem.**

Limitations of the Study

1. The study is completely based on secondary data.
2. The study does not examine individual consumer behaviour.
3. The analysis depends on the availability and consistency of official data.
4. Aggregate transaction statistics cannot explain the reasons behind individual transactions.
5. The study focuses specifically on transaction growth and bank participation rather than the technical performance of individual UPI applications.

Research Design

The present study adopts a **descriptive and analytical research design** to examine the year-wise development and growth of the Unified Payments Interface (UPI). The descriptive approach presents the trends in UPI transactions and ecosystem expansion, while the analytical approach evaluates the changes and growth patterns across the study period.

Sources of Data

The required data have been collected from **official and reliable secondary sources**, including:

- **National Payments Corporation of India (NPCI)**
- **Reserve Bank of India (RBI)**
- **Government of India**
- **Ministry of Finance**
- **Press Information Bureau (PIB)**

Among these sources, **NPCI serves as the principal source of UPI-related statistical data**, particularly information relating to transaction volume, transaction value, and participating banks. RBI and other Government of India sources are referred to wherever relevant for supporting and validating the analysis.

DATA ANALYSIS AND INTERPRETATION

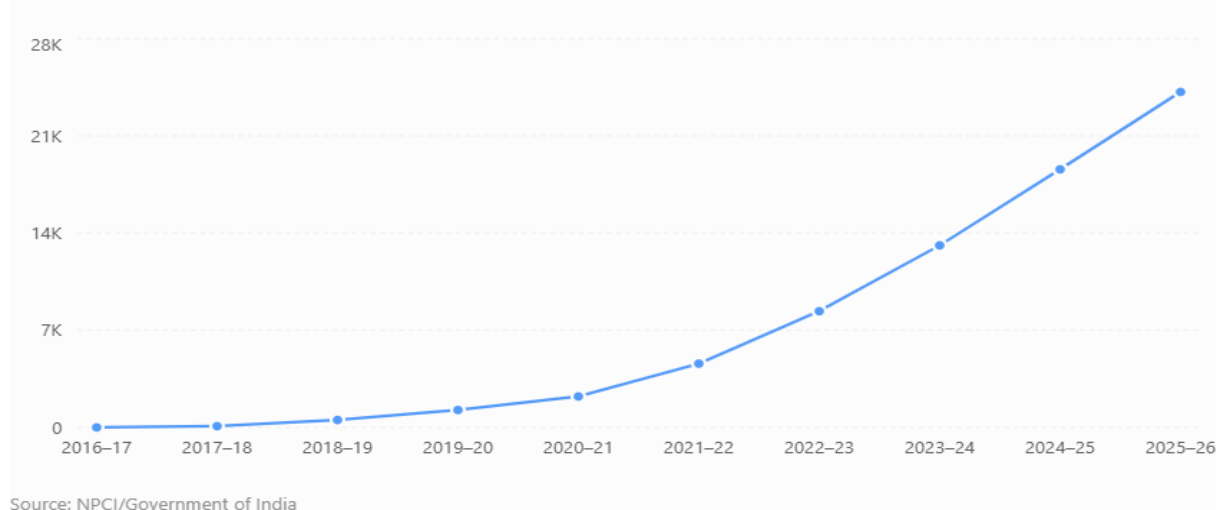
1. Year-on-Year Growth in UPI Transaction Volume

Financial Year	Transaction Volume (Crore)	YoY Growth (%)
2016–17	1.78	N/A
2017–18	92.00	5,067.42
2018–19	535.00	481.52
2019–20	1,254.90	134.56
2020–21	2,230.00	77.70
2021–22	4,595.61	106.08
2022–23	8,371.44	82.16
2023–24	13,112.95	56.64
2024–25	18,586.60	41.74
2025–26	24,161.69	30.00

The data show a remarkable and continuous growth in UPI transaction volume, increasing from 1.78 crore in FY 2016–17 to 24,161.69 crore in FY 2025–26. The highest growth of approximately 5,067% was recorded in FY 2017–18 due to the very low initial transaction base. Although the year-on-year growth rate gradually moderated as UPI matured, transaction volume continued to rise significantly. Overall, the findings indicate sustained expansion of UPI with a gradual moderation in percentage growth as the transaction base increased.

Year-on-year growth in UPI transaction volume

Annual UPI transaction volume from FY 2016–17 to FY 2025–26.



2. Year-on-Year Growth in UPI Transaction Value

Financial Year	Transaction Value (₹ Lakh Crore)	YoY Growth (%)
2016–17	0.07	-
2017–18	1.00	1,328.57
2018–19	8.80	780.00
2019–20	21.30	142.05
2020–21	41.00	92.49

Financial Year	Transaction Value (₹ Lakh Crore)	YoY Growth (%)
2021–22	84.16	105.27
2022–23	139.15	65.34
2023–24	199.95	43.71
2024–25	260.56	30.31
2025–26	314.23	20.60

The data indicate continuous growth in UPI transaction value, increasing from ₹0.07 lakh crore in FY 2016–17 to ₹314.23 lakh crore in FY 2025–26. The exceptionally high growth in the initial years was mainly due to the very small base. Although the growth rate gradually moderated as transaction value increased, UPI continued to record positive year-on-year growth, reaching approximately 20.60% in FY 2025–26. Overall, the findings indicate sustained growth in UPI transaction value throughout the study period.

3. Expansion of Banks Participating in UPI

Period	Banks Live on UPI
April 2016 – Launch	21
July 2026	741

The number of participating banks increased significantly from 21 at the launch of UPI to 741 by July 2026, indicating substantial expansion of the institutional network supporting UPI. Greater participation of banks strengthens the interoperability of the UPI system by enabling customers of different banks to transact through a common payment infrastructure. Therefore, the expansion of participating banks reflects the institutional strengthening and wider adoption of the UPI ecosystem beyond the growth in transaction volume and value.

Major Findings

1. UPI transaction volume recorded continuous growth during the study period, increasing from 1.78 crore to 24,161.69 crore transactions.
2. The highest percentage growth was observed during the initial adoption phase, primarily due to the very small initial transaction base.
3. Although the annual growth rate has moderated in recent years, UPI transaction volume continues to increase substantially in absolute terms.
4. UPI transaction value increased significantly from ₹0.07 lakh crore to ₹314.23 lakh crore during the study period.
5. UPI transaction value recorded positive year-on-year growth throughout the study period, indicating sustained expansion in the monetary scale of digital transactions.
6. The number of participating banks increased from 21 at the launch of UPI to 741 by July 2026, reflecting significant expansion of the UPI ecosystem.
7. The combined growth in transaction volume, transaction value, and participating banks demonstrates that UPI has evolved from an emerging digital payment mechanism into a major component of India's digital payment infrastructure.

Conclusion

The study examined the development of the Unified Payments Interface in India using three key indicators: year-on-year growth in transaction volume, year-on-year growth in transaction value and expansion of participating banks.

The analysis demonstrates that UPI has undergone remarkable growth since its introduction in 2016. Transaction volume increased from 1.78 crore transactions in FY 2016–17 to 24,161.69 crore in FY 2025–26, while transaction value increased from ₹0.07 lakh crore to ₹314.23 lakh crore.

Although the percentage growth rate has moderated over time, the absolute level of UPI activity continues to expand. This is a normal feature of a payment system moving from an early adoption stage towards a mature, large-scale ecosystem.

The expansion in participating banks further demonstrates the institutional development of UPI. The increase from 21 banks at launch to 741 banks by July 2026 indicates a significant strengthening of the interoperable network supporting digital payments.

Overall, the three indicators provide strong evidence that UPI has become a fundamental component of India's digital-payment infrastructure.

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