



“Foreign Ownership, Market Concentration and Financial Sovereignty of India’s UPI Ecosystem”

Dr Gaduputi Ayyanna, Lecturer in Economics, Government Degree College, Uravakonda

Anantapur District, Andhra Pradesh – 515812, Mail.Id: gaduputiharthik@gmail.com

Abstract

India’s Unified Payments Interface (UPI) has transformed digital payments by enabling fast, interoperable, and convenient financial transactions. However, the dominance of a few payment applications associated with multinational corporations raises questions about market concentration, data governance, competition, and financial sovereignty. This study examines these issues using secondary data from the National Payments Corporation of India (NPCI), the Reserve Bank of India (RBI), government publications, corporate disclosures, and published research. The study uses simple percentage analysis, the two-application concentration ratio (CR₂), and the Herfindahl–Hirschman Index (HHI) to examine application-level concentration. In September 2026, PhonePe and Google Pay accounted for approximately 77.80% of UPI payer-application transaction volume. The study argues that foreign ownership does not automatically undermine financial sovereignty because India's core UPI infrastructure remains domestically governed. Nevertheless, excessive application-level concentration may create challenges relating to competition, data governance, and technological dependence. The paper recommends stronger competition oversight, transparent data practices, and greater diversity among payment applications.

Keywords: UPI, foreign ownership, market concentration, financial sovereignty, digital payments, NPCI.

1. Introduction

India's digital payment ecosystem has expanded rapidly, with UPI emerging as a major component of retail financial transactions. Its interoperable infrastructure allows users to make instant payments through participating banks and authorised applications.

However, transaction activity is concentrated among a few consumer-facing platforms. PhonePe is ultimately controlled by Walmart, while Google Pay operates within Google's corporate group. Although NPCI operates the underlying UPI system, these companies play a significant role in connecting consumers and merchants to digital payments.

NPCI recorded approximately 24.07 billion UPI transactions worth ₹29.37 lakh crore in September 2026. This scale demonstrates the strategic importance of UPI to India's economy.

The central issue is whether the combination of foreign corporate ownership and high application-level concentration creates challenges for India's ability to govern its digital financial ecosystem. This study examines the issue from the perspectives of competition, data governance, technological resilience, and financial sovereignty.

1.1 Objectives

1. To examine the ownership structure of major UPI applications.
2. To measure concentration in the UPI application market.
3. To analyse the implications for financial sovereignty.
4. To suggest measures for strengthening competition and digital financial resilience.

2. Review of Literature and Conceptual Framework

Digital public infrastructure can reduce transaction costs, promote financial inclusion, and encourage innovation. UPI demonstrates these advantages through a common payment framework accessible to multiple service providers.

However, digital platforms benefit from network effects. Applications with larger user bases and wider merchant acceptance can attract additional users, reinforcing their market position. Such advantages may make it difficult for smaller providers to compete.

Financial sovereignty refers to a country's capacity to govern its financial infrastructure, enforce regulation, protect financial data, and maintain the continuity of essential payment services.

In the UPI ecosystem, financial sovereignty has three particularly relevant dimensions: domestic control over payment infrastructure, effective regulatory authority, and the ability to maintain a competitive and technologically resilient application market.

Foreign ownership alone does not establish a loss of sovereignty. The concern is whether ownership combined with market concentration and technological dependence weakens effective competition or public oversight.

3. Research Methodology

3.1 Research design

The study adopts a descriptive and analytical research design based on secondary data.

3.2 Sources of data

Data are collected from NPCI's UPI statistics, RBI publications, Ministry of Finance reports, corporate disclosures, and published research. Application-wise data for September 2026 are obtained from a dataset compiled from NPCI statistics and updated on 12 October 2026.

3.3 Period of study

We select September 2026 as the latest reference month for the application-level analysis. Earlier observations are used where available to examine changes in market concentration.

3.4 Tools of analysis

Percentage analysis

$$S_i = (T_i / T) \times 100$$

Here, S_i represents an application's market share, T_i

its transaction volume, and T is the relevant total transaction volume.

Two-application concentration ratio

$$CR_2 = S_1 + S_2$$

This measures the combined market share of the two largest applications.

Herfindahl–Hirschman Index

$$HHI = \sum_{i=1}^n S_i^2$$

The HHI is calculated by summing the squared market shares of individual applications. A higher value indicates greater concentration.

3.5 Limitations

The study relies on publicly available secondary data. Application-level transaction shares do not directly measure ownership of UPI infrastructure, access to financial data, or the full extent of market power. The analysis identifies potential relationships and policy concerns but does not establish that foreign ownership causes a loss of financial sovereignty.

4. Empirical Analysis

4.1 Growth of UPI

NPCI's monthly statistics show that UPI processed 24,068.38 million transactions worth ₹29,37,396.67 crore in September 2026. In August 2026, the corresponding figures were 24,508.96 million transactions and ₹29,82,355.95 crore.

Thus, transaction volume declined by approximately 1.8% between August and September 2026, while UPI continued to process more than 24 billion transactions monthly.

These figures demonstrate the growing scale and economic significance of India's digital payment infrastructure.

4.2 Application-wise market shares

The following table presents the reported payer-application market shares for September 2026.

UPI application	Market share (%)
PhonePe	45.57
Google Pay	32.23
Paytm	8.12
Navi	4.76
super.money	1.69
BHIM	1.06
Mapp	0.95
WhatsApp	0.80
Kotak Mahindra Bank applications	0.59
CRED	0.59
Axis Bank applications	0.56
Other listed applications	Remaining share

Source: September 2026 application-wise data compiled from NPCI statistics. Shares are rounded.

PhonePe and Google Pay together accounted for:

$$CR_2 = 45.57 + 32.23 = 77.80\%$$

This means that the two largest applications processed more than three-quarters of the reported payer-application transaction volume.

The combined share was approximately 80.2% in March 2026, compared with 77.8% in September 2026. This suggests a modest decline in the combined share of the two leaders over the six months, although they continued to dominate the application market.

4.3 HHI analysis

Using the published September 2026 shares of the 20 listed applications, the sum of squared market shares is approximately 3,211 HHI points.

This is a lower-bound estimate of the complete HHI because the listed shares sum to approximately 99.11%, leaving a small residual share not represented in the displayed list.

The result indicates substantial concentration among UPI applications under commonly used competition-analysis benchmarks. However, concentration alone does not establish anticompetitive conduct or demonstrate a loss of financial sovereignty.

5. Foreign Ownership and Financial Sovereignty

5.1 Ownership of applications and infrastructure

PhonePe's ultimate holding company is Walmart, while Google Pay operates within Google's corporate group. These relationships illustrate the importance of foreign multinational corporations in India's consumer-facing payment market.

However, corporate ownership must be distinguished from ownership of infrastructure. NPCI operates the UPI payment system under India's institutional and regulatory framework. Foreign ownership of an application does not automatically imply foreign control over the underlying payment network or bank settlement arrangements.

5.2 Competition and network effects

Large applications benefit from customer familiarity, merchant acceptance, brand recognition, and substantial investment capacity. These advantages can reinforce existing market positions and make it difficult for smaller applications to achieve comparable scale.

High concentration may weaken competitive pressure if consumers and merchants become dependent on a limited number of providers. Nevertheless, concentration should be evaluated alongside actual business conduct, switching opportunities, and the availability of alternatives.

5.3 Data governance

Payment applications may process transaction-related information for legitimate operational and commercial purposes, subject to applicable law and permissions. Such information can support fraud detection, service improvement, and innovation.

However, inadequate transparency or inappropriate use of data may weaken consumer trust and create unfair competitive advantages. Effective data protection, clear consent practices, and regulatory accountability are therefore important components of financial sovereignty.

5.4 Technological resilience

Dependence on a few large applications may increase the consequences of outages, cybersecurity incidents, or major changes in corporate strategy. Operational redundancy, alternative applications, incident reporting, and effective recovery arrangements can reduce these risks.

Financial sovereignty consequently requires the capacity to maintain secure and reliable payment services regardless of the ownership of individual applications.

6. Major Findings

1. UPI has become a strategically important component of India's digital financial infrastructure.
2. PhonePe and Google Pay together accounted for approximately 77.80% of reported payer-application transaction volume in September 2026.
3. The application market remains highly concentrated, although the combined share of the two leading applications declined between March and September 2026.
4. Foreign multinational corporations have significant positions in the consumer-facing application market, while NPCI operates the underlying UPI system.
5. Market concentration may create competition, data-governance, and operational-resilience concerns.
6. Foreign ownership alone does not establish a loss of financial sovereignty; effective domestic regulation and infrastructure governance remain central.

7. Policy Recommendations

Strengthen competition oversight: Regulators should regularly monitor application-level concentration and assess whether market practices restrict effective competition.

Promote diverse payment applications: Bank-owned applications, BHIM, and other authorised providers should have fair opportunities to compete through transparent access and proportionate compliance requirements.

Improve data governance: Providers should follow applicable data-protection requirements, maintain transparent data practices, and prevent unauthorised data use.

Enhance operational resilience: Cybersecurity assessments, incident reporting, recovery planning, and alternative payment channels should be strengthened.

Protect consumer choice: Payment interfaces and default settings should not unfairly disadvantage competing applications.

Assess actual risks: Regulatory decisions should consider ownership, market power, data practices, and operational dependence rather than treating foreign ownership itself as evidence of a sovereignty problem.

8. Conclusion

India's UPI ecosystem combines domestically governed payment infrastructure with commercially operated applications, including those controlled by multinational corporations. September 2026 data indicate that PhonePe and Google Pay together accounted for approximately 77.80% of payer-application transaction volume. This demonstrates substantial concentration at the application layer.

Although foreign investment can contribute capital, technology, and innovation, persistent concentration may create challenges relating to competition, data governance, and operational dependence. Nevertheless, foreign ownership does not automatically undermine India's financial sovereignty.

The country's long-term financial autonomy depends on effective regulation, secure domestic infrastructure, technological resilience, and meaningful competition among payment providers. The objective should be to ensure that all providers remain accountable under Indian law and that no individual platform becomes indispensable to the national payment ecosystem.

References

1. National Payments Corporation of India. (2026). *UPI Product Statistics*. <https://www.npci.org.in/product/upi/product-statistics>
2. National Payments Corporation of India. (2026). *UPI Ecosystem Statistics*. <https://www.npci.org.in/what-we-do/upi/upi-ecosystem-statistics>
3. National Payments Corporation of India. (2026). *Year, Month and Payment Application-wise UPI Apps Transaction Statistics*. Dataful. <https://dataful.in/datasets/413/>
4. Reserve Bank of India. (2024). *Annual Report 2023–24*. <https://www.rbi.org.in/>
5. PhonePe Limited. (2025). *Updated Draft Red Herring Prospectus*. PhonePe investor relations. <https://www.phonepe.com/>
6. Google. (2026). *Google Pay Terms of Service for India*. https://pay.google.com/intl/en_in/about/terms/
7. Ministry of Finance, Government of India. (2026). *Digital payments in India*. Press Information Bureau. <https://www.pib.gov.in/>