

THE ROLE OF UPI IN PROMOTING DIGITAL FINANCIAL INCLUSION: A STUDY AMONG DIGITAL PAYMENT USERS IN CHENNAI CITY

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ABSTRACT

The study examines the role of Unified Payments Interface (UPI) in promoting digital financial inclusion among digital payment users in Chennai City. It focuses on the level of digital financial inclusion, the relationship between UPI usage and access to digital financial services, demographic differences, challenges faced by users, and measures for strengthening financial inclusion. Primary data were collected from 150 respondents using a structured questionnaire and convenience sampling. Percentage analysis, mean, standard deviation, Pearson correlation, independent sample t-test, one-way ANOVA, and Friedman test were employed for data analysis. The findings reveal a relatively high level of digital financial inclusion, with an overall mean score of 3.78. A strong positive and statistically significant relationship was found between UPI usage and access to digital financial services ($r = 0.789$, $p < 0.001$). Significant differences in digital financial inclusion were observed across gender, age, educational qualification, occupation, and monthly income. Internet connectivity emerged as the major challenge faced by respondents. The study concludes that UPI plays an important role in improving access to and utilization of digital financial services and reducing dependence on cash. Strengthening digital infrastructure, financial literacy, transaction security, and inclusive initiatives can further enhance the contribution of UPI to digital financial inclusion.

Keywords: *UPI, Digital Financial Inclusion, Digital Payments, Financial Services, Chennai City.*

INTRODUCTION

The rapid evolution of the **Unified Payments Interface (UPI)** has transformed the digital payment ecosystem in India by enabling fast, secure, and convenient financial transactions. National Payments Corporation of India (NPCI) revolutionized UPI for individuals and businesses conduct financial transactions through smartphones. The widespread use of UPI has also been accelerated by the Government of India's Digital India initiative, increased smartphone penetration, affordable internet connectivity, and changing consumer preferences towards cashless transactions.

Earlier studies emphasizes only on the operational and technological aspects of UPI and comparatively gives limited attention for promoting digital financial inclusion particularly in Urban Areas (Chennai). Moreover the findings from earlier study may not fully reflect the current experiences of digital Payment users or the emerging challenges associated with UPI usage. This study investigates the users level of financial inclusion, factors influencing UPI adoption, challenges faced by users during usage, and the possible measures for improvement. The study

aims to generate empirical evidence that can support policymakers, financial institutions, and digital payment service providers.

REVIEW OF LITERATURE

Esakki (2026) examined the impact of UPI adoption and digital payment usage on financial inclusion in Tamil Nadu. The study was based on primary data collected from 300 respondents and used correlation and multiple regression analysis. The findings revealed a significant positive relationship between UPI adoption, digital payment usage, and financial inclusion. The study concluded that digital payment systems can improve accessibility, convenience, and efficiency in financial services.

Ahmed and Srivastava (2026) examined the role of UPI in advancing financial inclusion among underserved populations. The study highlighted the contribution of UPI towards improving access to financial services and reducing barriers to digital transactions. It also identified digital illiteracy, infrastructure limitations, and trust-related issues as important challenges that need to be addressed to achieve inclusive digital finance.

Kiran and Sailaja (2025) examined the factors influencing UPI adoption using the Unified Theory of Acceptance and Use of Technology (UTAUT). The study considered factors such as facilitating conditions, performance expectancy, effort expectancy, social influence, promotional benefits, and perceived trust. The findings indicated that these factors significantly influenced users' intention to adopt and use UPI.

Khalid and Sultana (2025) examined the relationship between digital payment adoption and financial inclusion in India. The study considered the expansion of digital payment platforms and differences in adoption across demographic and regional groups. The findings highlighted the importance of improving digital literacy and infrastructure to ensure that the benefits of digital payments are distributed more inclusively.

Chandak and Shukla (2024) reviewed the development of UPI and its technological and security features. The study highlighted the convenience, security, and interoperability of UPI as important characteristics supporting its rapid adoption. It also emphasized the potential for technological improvements to strengthen the safety and effectiveness of digital payment systems.

RESEARCH GAP

Previous studies on UPI have primarily focused on adoption rather than its contribution to digital financial inclusion. Many studies on digital financial inclusion have concentrated on rural areas or provided nationwide analysis rather than focusing on urban cities like Chennai. They have also examined merchant adoption more than the experiences of individual users. Furthermore, there is a lack of attention to demographic differences such as age, income, education, and occupation in understanding how UPI promotes financial inclusion. Although earlier studies have examined UPI usage, they have rarely investigated the challenges faced by users during UPI transactions.

Therefore, this study seeks to explore the role of UPI in promoting digital financial inclusion among digital payment users in Chennai City

OBJECTIVES OF THE STUDY

1. To examine the level of digital financial inclusion among UPI users in Chennai City.
2. To assess the relationship between UPI usage and access and utilization of digital financial services.
3. To compare the level of digital financial inclusion across different demographic groups of UPI users.
4. To examine the challenges that prevent UPI from achieving inclusive financial access.
5. To recommend measures for strengthening digital financial inclusion through UPI.

RESEARCH METHODOLOGY

The study adopts a descriptive and analytical research design to examine the role of UPI in promoting digital financial inclusion among 150 digital payment users in Chennai City. Primary data were collected through a structured questionnaire using convenience sampling. Data were analysed using SPSS through percentage analysis, mean, standard deviation, Pearson correlation, independent sample t-test, and one-way ANOVA. Correlation was used to examine the relationship between UPI usage and digital financial inclusion, while t-test and ANOVA were used to assess demographic differences. Hypotheses were tested at the 5% significance level. The questionnaire covered UPI usage, financial inclusion, challenges, and recommendations.

DATA INTERPRETATION :

Objective 1: To examine the level of digital financial inclusion among UPI users

Descriptive Analysis

Statement	Mean	Percentage
UPI has made financial services more accessible	3.85	67.33
UPI has reduced dependence on cash	3.74	62.67
UPI has increased use of digital financial services	3.79	68.00
UPI has improved overall financial inclusion	3.73	62.00
Overall mean	3.78	65.00

Interpretation:

The overall mean score of 3.78 indicates a relatively favourable level of perceived digital financial inclusion among the respondents. About 65% of respondents agreed or strongly agreed with the inclusion-related statements. The highest mean score was recorded for the accessibility of financial services (3.85), while the lowest mean score was recorded for overall financial inclusion (3.73).

The findings indicate that UPI has contributed positively to digital financial inclusion among the respondents..

Objective 2 :To assess the relationship between UPI usage and access and utilization of digital financial services.

H₀: There is no significant relationship between UPI usage and access and utilization of digital financial services.

H₁: There is a significant relationship between UPI usage and access and utilization of digital financial services.

Pearson Correlation

variables	Pearson Correlation (r)	p-value
UPI Usage and Access & Utilization	0.789	< 0.001

Interpretation:

The Pearson correlation coefficient of 0.789 indicates a strong positive relationship between UPI usage and access and utilization of digital financial services. Since the p-value is less than 0.05, the relationship is statistically significant. Therefore, the null hypothesis (H₀) is rejected and the alternative hypothesis (H₁) is accepted. The findings indicate that higher UPI usage is associated with greater access to and utilization of digital financial services.

Objective 3 :To compare the level of digital financial inclusion across different demographic groups of UPI users.

H₀ : There is no significant difference in the level of digital financial inclusion across different demographic groups of UPI users.

H₁: There is a significant difference in the level of digital financial inclusion across different demographic groups of UPI users.

Demographic Variable	Group	N	Mean Digital Financial Inclusion Score	Statistical Test	Test Statistic	p-value	Result
Gender	Female	102	3.6	Independent Sample t-test	t = -2.931	0.004	Significant
	Male	48	4.16				

Age	Below 20	33	3.02	One-way ANOVA	F = 5.666	<0.001	Significant
	21–30	71	3.9				
	31–40	12	3.73				
	41–50	23	4.08				
	Above 50	11	4.66				
Educational Qualification	Higher Secondary	16	2.86	One-way ANOVA	F = 7.291	0.001	Significant
	Undergraduate	51	3.63				
	Postgraduate	83	4.04				
Occupation	Business	12	4.69	One-way ANOVA	F = 3.700	0.027	Significant
	Others	18	3.69				
	Student/Salaried	120	3.7				
Monthly Income	Below ₹25,000	88	3.46	One-way ANOVA	F =10.257	<0.001	Significant
	₹25,001–₹75,000	44	4.01				
	Above ₹75,000	18	4.74				

Interpretation:

The results indicate statistically significant differences in the level of digital financial inclusion based on gender, age, educational qualification, occupation, and monthly income, as all the reported p-values are below 0.05. Therefore, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. The findings indicate that the level of digital financial inclusion varies across the demographic groups considered in the study.

Objective 4 : To examine the challenges that prevent UPI from achieving inclusive financial access.

H_0 : There is no significant difference among the challenges faced by UPI users.

H_1 : There is a significant difference among the challenges faced by UPI users.

Friedman Test

Test	χ^2	p-value
Challenges	16.148	0.001

Interpretation:

The Friedman test result shows a chi-square value of 16.148 with a p-value of 0.001. Since the p-value is less than 0.05, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. Therefore, there is a statistically significant difference among the challenges faced by UPI users. Among the challenges considered, internet connectivity emerged as the major challenge, indicating that connectivity and infrastructure-related issues continue to affect the inclusive use of UPI services.

Objective 5 : To recommend measures for strengthening digital financial inclusion through UPI.

H_0 : There is no significant difference among the respondents' opinions regarding the recommended measures for strengthening digital financial inclusion through UPI.

H_1 : There is a significant difference among the respondents' opinions regarding the recommended measures for strengthening digital financial inclusion through UPI.

Friedman Test

Test	χ^2	p-value
Recommended Measures	4.893	0.087

Interpretation:

The Friedman test result shows a chi-square value of 4.893 with a p-value of 0.087. Since the p-value is greater than 0.05, the null hypothesis (H_0) is not rejected. Therefore, there is no statistically significant difference among the respondents' opinions regarding the recommended measures for strengthening digital financial inclusion through UPI. This indicates that the respondents generally considered the recommended measures to be similarly important.

FINDINGS OF THE STUDY

1. UPI users showed a relatively high level of digital financial inclusion (Mean = 3.78), with 65% agreeing that UPI promotes inclusion.
2. Accessibility to financial services ranked highest (Mean = 3.85), followed by increased digital service usage (3.79) and reduced cash dependence (3.74).
3. UPI usage had a strong positive relationship with access and utilization of digital financial services ($r = 0.789$, $p < 0.001$).
4. Significant differences in financial inclusion were found across gender, age, education, occupation, and income.
5. Internet connectivity was the major challenge faced by UPI users ($\chi^2 = 16.148$, $p = 0.001$).
6. Respondents considered the suggested measures for strengthening inclusion to be equally important ($\chi^2 = 4.893$, $p = 0.087$).

SUGGESTIONS

- Improve internet and digital infrastructure.
- Strengthen digital and financial literacy programmes.
- Focus on low-income groups and women.
- Provide simple, multilingual, and user-friendly services.
- Enhance transaction security and grievance redressal.
- Conduct UPI awareness programmes through banks, colleges, government agencies, and payment providers.

CONCLUSION

The study concludes that UPI plays an important role in promoting digital financial inclusion in Chennai City by improving accessibility, increasing the use of digital financial services, and reducing cash dependence. However, differences across demographic groups and connectivity challenges remain. Strengthening infrastructure, literacy, security, and targeted support can make UPI more inclusive and effective.

REFERENCES

- Ahmed, M. S., & Srivastava, S. (2026). UPI adoption and financial inclusion. *European Economic Letters*, 16(1), 1965–1975.
- Chandak, D., & Shukla, A. (2024). Prospects of UPI systems on business and digital payments in India. *Educational Administration: Theory and Practice*, 30(1), 3197–3206.
- Choudhary, H. S., Mishra, S., & Kumari, A. (2025). Impact of digital payments (UPI) on financial inclusion in India. *International Journal of Science and Consciousness*, 11(4), 11–16.
- Esakki, N. (2026). Impact of UPI adoption and digital payment usage on financial inclusion: An empirical study of Tamil Nadu. *International Journal on Research and Development—A Management Review*, 15(1), 325–336.
- Haque, M. I., Azeez, A. N. P., & Akhtar, S. M. J. (2025). UPI and financial inclusion in rural India: A case study. *Development and Sustainability in Economics and Finance*, 6, 100056.
- Khalid, S. R., & Sultana, N. (2025). Post-COVID digital payment adoption and financial inclusion in India. *European Economic Letters*, 15(2), 4506–4524.
- Kiran, K. P., & Vedala, N. S. (2025). Assessing UPI adoption and usage through UTAUT factors. *Humanities and Social Sciences Communications*, 12(1), 1060.
- Sahoo, D. K., Patnaik, B. C. M., & Satpathy, I. (2024). Adoption of UPI: A literature review. *Journal of the Oriental Institute*, 73(2), 376–385.