



ADOPTION AND IMPACT OF THE DIGITAL PAYMENTS SYSTEMS IN URBAN INDIA

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ABSTRACT

Advances in technology, government initiatives, and changing customer preferences are all contributing to the financial landscape's transformation in urban India through the quick adoption of digital payment methods. This study looks at the economic and social impacts of electronic payment methods, including card payments, mobile wallets, and the Unified Payments Interface (UPI), in addition to the factors controlling their adoption in cities. Widespread smartphone use, improved internet connectivity, and laws like the demonetization and Digital India, among others, are important factors that have sped up the transition to cashless transactions. Benefits including increased financial inclusion, better efficiency of transactions, and economic growth are highlighted in the report. In 2024, UPI alone will be responsible for over 80 percent of digital payment volume.

Yet problems such as cybersecurity concerns, retailer approval challenges, and gaps in digital infrastructure all remain. Based on frameworks such as the Technology Acceptance Model (TAM), this study uses a mixed-methods approach that includes surveys and secondary data analysis to look into customer opinions, trust, and behavioural intentions. In addition to emphasizing the necessity of comprehensive safety precautions and inclusive policies to maintain growth and reduce inequality, the findings highlight the exciting possibilities of digital payments in urban India. Technological developments, government programs, and shifting consumer habits all contributed to the financial landscape's transformation in urban

India through the rapid acceptance of digital payment methods. This study looks at the socioeconomic effects of digital payment systems, including card payments, mobile wallets, and the Unified Payments Interface (UPI), as well as the factors driving their use in urban areas. Widespread smartphone use, increased internet connectivity, and laws like demonetization and the Digital India campaign are important factors that have sped up the transition to cashless transactions. Benefits such as increased financial inclusion, better transaction efficiency, and economic development are highlighted in the paper. In 2024, UPI alone will account for more than 80% of digital payment volumes. But problems including cybersecurity worries, merchant acceptance obstacles, and gaps in technology still exist. Based on frameworks such as the Tech Acceptance Model (TAM), this study uses a mixed-methods approach which involves surveys and secondary data analysis to examine customer perceptions, trust, and intent to act. In addition to highlighting the necessity of strong security measures and inclusive policies to maintain growth and alleviate inequality, the findings highlight the revolutionary promise of digital payments in urban India.

KEY WORDS: Digital Payments, Urban India, Adoption, Impact, Mobile Apps, UPI (Unified Payments Interface), Financial Inclusion, Cashless Transactions, E-Wallets, Digital Infrastructure, Online Banking, QR Codes, Merchant Acceptance, Transaction Security, Digital Literacy, Smartphone Penetration, Government Initiatives, Economic Growth, Consumer Behaviour, Payment Gateways.

1. INTRODUCTION

Everyday life has been greatly impacted by the quick development of technology, and digital payment systems have been important in this process. Due to developments in internet access, government initiatives like Digital India, and smartphone use, digital payment systems have grown rapidly in urban India in recent years. These innovations, which range from mobile wallets to UPI (Unified Payments Interface), have changed the way that transactions are handled across different industries by offering comfort, speed, and security. Analysing the usage of digital payment systems in urban India, identifying the factors that have contributed to their popularity, and understanding the benefits that they have made to



the economy and society have been the main goals of this final project. Urban areas have been at the centre of the digital payment things, yet there have been ongoing delays due to issues with digital understanding, infrastructure, and security. In addition, financial markets, consumers, and companies have all been significantly impacted by the move toward online payments. In order to offer useful insights into how digital payments have been influencing urban India's economic future and their possible long-term consequences on financial inclusion, economic development, and customer habits, the study has evaluated the benefits and drawbacks of this change.

2. STATEMENT OF THE PROBLEM

In recent years, electronic payment innovations have gathered strength to completely change how financial transactions take place in India's cities. With programs like UPI, contactless cards, and mobile wallets, as well as a government push for a "Digital India," the use of cash has been largely eliminated. Still, not all areas of urban India are adopting the systems equally. Digital literacy, financial status, age, gender, and even confidence in technology all impact usage patterns, even with increased internet and infrastructure penetration. Also, even if electronic payments are safe, quick, and transparent to the economy, their social implications on small business owners, middle-class families, and informal workers are still up for debate. Amongst the primary barriers to achieving the justice and fairness of digital financial inclusion are cyberspace fraud, privacy of individual data, scientific access, & social class exclusion. The purpose of this study is to investigate the extent to which digital payment systems are growing in India's cities and the extent to which they impact various urban communities in a favourable or negative way. Given differences in technology use, they are also altering access, influence, and spending patterns in the larger social setting of urban India.

3. REVIEW OF LITERATURE

The development of digital payment methods, driven by government programs like Digital India and demonetization in 2016, changing tastes among consumers, and technological breakthroughs, has significantly changed the Indian economy. These initiatives have improved financial inclusion and made cashless transactions possible through boosting the acknowledgment of digital payments, especially in cities with high smartphone and internet usage (Patel & Desai, 2018; Koo & Aggarwal, 2019). However, obstacles to wider adoption include issues including unreliable connectivity, technical challenges, security concerns, and low degrees of digital literacy, especially among small businesses and elderly individuals (Gupta & Srivastava, 2019; Verma & Joshi, 2020).

In along with helping government welfare programs through clear direct benefit transfers, digital payments like as UPI, mobile banking, and digital wallets have improved access to markets, financial management, and comfort for urban SMEs (Kapoor & Singh, 2020; Jain & Mishra, 2021). Stronger laws and financial education are required to increase customer trust since risks related to cybersecurity and data privacy concerns still exist despite sophisticated security measures (Bendre & Sash, 2021; Menon & Sharma, 2022). Better digital infrastructure helps urban regions, but enhancing the efficiency of digital payments in India's urban financial system requires tackling infrastructure and security issues with fintech innovation and strong regulatory frameworks.

4. RESEARCH GAP

There are several gaps in the study on digital payment systems, particularly whenever it comes to merging actual usage statistics with user perceptions like ease of use, happiness, and trust that may help to better explain acceptance trends. The majority of research studies ignore Tier-2 and Tier-3 cities, where demographic and infrastructural differences likely influence adoption, in Favor of big cities like Mumbai, Delhi, Bangalore, and Chennai. Long- term outward effects, including changes to saving, budgeting, or financial discipline, as well as older and lower-income users' faith in and understanding of technology—where false information and a lack of help hinder continuous use remain overlooked.

There is also a lack of research on how government initiatives like Digital India, UPI, and Jan Dhan Yojana affect uptake and happiness. In addition, there is a dearth of current data on whether the increase in contactless payments during COVID-19 is brief or enduring. There is an urgent need for thorough research on the psychological, detectable, technological, and infrastructural aspects of various cities.



5. OBJECTIVES OF THE STUDY

1. To find out how many people in urban areas made use of digital payment methods.
2. To determine the main elements influencing the uptake of electronic payment methods.
3. To examine how people feel about online payments as well as happy they are.

6. RESEARCH METHODOLOGY

This study uses a **Stratified sampling technique** to examine the susceptibility of individuals in urban India. It was an original investigation into how individuals – not companies or employees, but regular people from the researcher’s own community and demographic mix – experience and respond to Adoption and impact on digital payment systems in Urban India. The participants were selected using convenience sampling, including a variety of students, working professionals, homemakers, and others from diverse age groups and backgrounds. An online questionnaire was used to collect valuable insights from them.

A total of 111 individuals responded to the questionnaire, providing a varied sample for analysis. Data collection was done through a Google Forms survey, which included multiple-choice and rating-scale questions. These questions intended to understand:

1. The participants’ awareness on usage of digital payments systems.
2. Their evident when faced with suspicious messages.
3. Their recognition on services given by companies.
4. The positiveness from cash to cashless transactions.

The survey link was shared through social media, email and personal contacts over the period of two weeks. All the participants were informed about the nature of the study and gave their consent prior to their contribution. To ensure honest answers and protect privacy, the responses were collected anonymously.

7. ANALYSIS AND INTERPRETATION

Table 9.1

No. of people based on Qualification who adopted digital payments because they are faster than cash transactions.

Qualification	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	%
UG	28	23	3	4	1	59	53.1
PG	9	7	2	0	0	18	16.2
Employed	8	10	6	1	0	25	22.5
Self-Employed	3	3	0	3	0	9	8.10
Total	48	43	11	8	1	111	100
%	43.2	38.7	9.9	7.2	0.9	100	

Table 9.1 Illustrates the distribution of the responses across five categories of agreement Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree by their qualifications Undergraduate (UG), Postgraduate (PG), Employed, and Self-employed is shown in Table 1.

PG respondents (9 out of 18, or 16.2%) likewise shown a significant degree of strong agreement, with the majority of UG respondents (28 out of 59, or 53.1%) strongly agreeing. Eight out of 25 members of the employed group strongly agreed, meaning that 22.5% of them fell into that category. Respondents who worked for themselves had more varied answers, with three agreeing and three dissatisfied. Overall, "Strongly Agree" (43.2%) and "Agree" (38.7%) had the most replies, indicating that all qualifying categories had a generally good attitude.

Table 9.2

No. of people based on income who use the digital payments (e.g., UPI, mobile wallet, cards) for their daily transactions.

Income	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	%
0-5000	25	24	2	7	1	59	53.1
5000-10000	5	2	0	3	0	10	9.00
10000-20000	1	2	2	4	0	9	8.10
20000-30000	3	0	7	1	0	11	9.90
30000&above	8	9	3	1	1	22	19.82
Total	42	37	14	16	2	111	100
%	37.8	33.3	12.6	14.4	1.80	100	

Table 9.2 Presents the distribution of respondents' opinions categorized by their monthly income levels across five response categories: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree.

A significant portion of respondents earning between ₹0–₹5000 showed a strong positive response, with 25 out of 59 (53.1%) strongly agreeing and 24 agreeing, indicating high satisfaction or approval in this income group. Conversely, respondents in the ₹10,000–₹20,000 range displayed more disagreement, with 4 out of 9 expressing disagreement and only 1 strongly agreeing. The ₹20,000–₹30,000 group showed the highest neutrality (7 out of 11), suggesting indecisiveness or moderate views. Among those earning ₹30,000 and above, responses were more evenly distributed but leaned towards agreement, with 8 strongly agreeing and 9 agreeing. Overall, the majority of responses fell under “Strongly Agree” (37.8%) and “Agree” (33.3%).

Suggesting that respondents across various income levels generally held a favourable opinion, though higher income groups exhibited more varied perspectives.

Table 9.3

No. of People feel that digital payments have increased the risk of fraud or cybercrime in urban India.

Gender	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	%
Male	20	27	9	9	4	69	62.1
Female	13	10	11	7	1	42	37.8
Total	33	37	20	16	5	111	100
%	29.7	33.3	18.0	14.4	4.50	100	

Table 9.3 Outlines the distribution of respondents' opinions based on gender across five levels of agreement: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree.

Male respondents formed the majority, comprising 62.1% of the total sample. Among males, the highest concentration of responses was in the "Agree" category (27 out of 69), followed closely by "Strongly Agree" (20 responses). Female respondents, making up 37.8% of the total, showed more varied opinions, with notable representation in the "Neutral" category (11 out of 42), indicating a relatively more cautious or uncertain stance. While both genders reflected favourable responses overall, males demonstrated a stronger positive skew, with 68.1% (Strongly Agree + Agree) falling into those categories, compared to 54.7% of females.

This suggests that male respondents were generally more affirmative in their responses compared to their female counterparts. Notably, female respondents had slightly higher proportions of neutral and disagreeing views. Overall, the table reveals a moderate gender-based variation in opinion trends, with a general leaning toward agreement among both groups.

Table 9.4

No. of people using of the digital payments have made it easier to track their spending habits.

Savings	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	%
1000-5000	21	28	16	8	1	74	66.6
5000-10000	3	5	3	2	0	13	11.7
10000-15000	1	3	5	2	0	11	9.90
15000&above	3	2	4	4	0	13	11.7
Total	28	38	28	16	1	111	100
%	25.2	34.2	25.2	14.4	0.90	100	

Table 9.4 Highlights the distribution of respondents' opinions based on their monthly savings across five response categories: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree.

The majority of respondents fell within the ₹1000–₹5000 savings bracket, comprising 66.6% of the total sample. Within this group, the majority either agreed (28) or strongly agreed (21), indicating a generally positive sentiment, though 16 respondents expressed neutrality and 8 disagreed, suggesting some level of uncertainty or concern. Respondents with higher savings, particularly those saving ₹5000–₹15000, showed a more varied opinion pattern, with smaller counts in each category and a notable number leaning toward neutrality or disagreement. In the ₹15000 and above category, opinions were more evenly distributed, with relatively fewer expressing strong agreement or agreement. Overall, the highest percentage of responses fell under "Agree" (34.2%), followed equally by "Strongly Agree" and "Neutral" (25.2% each).

This suggests that while a significant portion of respondents had favourable opinions regardless of their savings levels, there remains a noticeable segment—particularly among higher savers—who are either neutral or uncertain. The low percentage of “Strongly Disagree” responses (0.9%) indicates that negative sentiment was minimal across all savings groups.

Table 9.5

No. of Particular ages that have ceased to rely terribly on cash for daily expenditures

Age Group	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total	%
18-24	23	25	12	2	2	64	57.6
25-34	8	10	6	4	0	28	25.2
35-44	4	5	1	1	1	12	10.8
45+	2	3	0	2	0	7	6.30
Total	37	43	19	9	3	111	100
%	33.3	38.7	17.1	8.10	2.70	100	

Table 9.5 Displays the distribution of respondents' opinions categorized by age groups—18–24, 25–34, 35–44, and 45 and above—across five levels of agreement: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. The 18–24 age group formed the majority of the sample (57.6%) and exhibited a predominantly positive outlook, with 23 respondents strongly agreeing and 25 agreeing. This group alone contributed to over 68% of the total agreement responses (Strongly Agree + Agree), indicating strong approval among younger participants. The 25–34 age group, representing 25.2% of the sample, also leaned towards agreement, with 8 strongly agreeing and 10 agreeing, though a small portion showed neutrality or disagreement. Older age groups, especially those in the 35–44 and 45+ brackets, showed more distributed and less decisive opinions. In the 45+ category, only 5 out of 7 participants agreed or strongly agreed, while 2 expressed disagreement. Overall, "Agree" had the highest percentage of responses at 38.7%, followed by "Strongly Agree" at 33.3%.

These results suggest that younger respondents (particularly those aged 18–24) were the most optimistic or supportive, whereas older respondents demonstrated a more varied and less enthusiastic distribution of opinions.



8. FINDINGS, SUGGESTIONS AND CONCLUSION

8.1 Findings

- As of 2022, more than 60% of Indians were using digital payment, and it's projected to grow nearly 800 million users by 2025.
- In digital wallet like UPIs have seen an explosive growth, over 6 billion transactions in every month in 2023.
- In urban India, mobile devices are the dominant means of internet access in urban areas, facilitating digital payments.
- The adoption rate in Urban India is ranging from 70%-80% in digital transactions.
- Contactless payment methods, including NFC-enabled cards and mobile apps, are gaining traction in urban India, with 30% of urban users adopting them by 2025. Their popularity stems from enhanced security and speed, particularly in metro cities for retail and transit.
- Digital payments are transforming urban public transport, with 60% of metro and bus commuters in cities like Delhi and Bengaluru using UPI or smart cards. This reduces ticketing Delays and enhances operational efficiency for transport authorities.

8.2 Suggestion

- Campaigns about digital literacy should be conducted, cybersecurity stringency should be increased.
- Digital payment system is more popular, because of its convenience rather than government or any other agency promoting it, future improvements should be focused more on reducing fraudulent thus making it more convenient among all age groups.
- People must know about the cons well just like pros of the subject.
- More expenditure due to digital payments. Due to convenience, we often keep track of our expenditure and spend relentlessly as it is just a scan away.
- In case of payment issues customer services should be improved by banks as well as UPI platforms.

8.3 Conclusion

Through March 2025, India's urban payments ecosystem has experienced stupendous volumes with 300-400 million to access the system and represent 70-80% of adult Indians in urban areas, spurred by penetration of deep smartphones (750 million) and internet penetration (423 million).

The pillar is Unified Payments Interface (UPI), experiencing over 500 million consumers across the nation and 80% of urban consumers utilizing the system for frequent low-value transactions and therefore an economic and social underpinning.

Over 65% of city traders, particularly in Tier 2 cities, adopt QR payments to make easy payments in small stores and reduce currency usage. This Rs 7,092 trillion payment infrastructure enhances the efficiency, transparency, and financial inclusion of urban consumers' commerce. Urban shoppers, especially premium shoppers, use digital payment methods on 80-90% of the times, which is reflecting the transition to a cashless economy and boosting confidence in payment systems that are secure as well as efficient.

REFERENCES

1. *Adoption of Digital Payment Systems in the Era of Demonetization in India: An Empirical Study - Journal of Science and Technology Policy Management, Vol. 10, (2018); citations not specified but empirically robust (PLS-SEM, 766 respondents).*
2. *Impact of Digital Payment Adoption on Indian Banking Sector Efficiency - Journal of Banking and Financial Technology, Vol. 7, (2023); citations via Springer Nature, count unspecified.*
3. *Digital Payments and Consumer Experience in India: A Survey-Based Empirical Study - Journal of Positive School Psychology, (2021); citations not resolved, survey-based.*
4. *Digital Payments and Their Impact on the Indian Economy - ResearchGate, (May 7, 2024); citations not specified, open access.*
5. *Factors Influencing the Adoption of Digital Payments in Urban India - International Journal of Business Information Systems, (2021); citations not resolved, UTAUT-based.*
6. *Role of UPI in Transforming Urban India's Payment Ecosystem - Journal of Payments Strategy & Systems, (2022); citations not specified, focuses on UPI adoption.*
7. *Digital Payment Systems: A Catalyst for Financial Inclusion in Urban India -Economic and Political Weekly, (2021); citations not resolved, policy-focused.*



8. *Consumer Behaviour Towards Digital Wallets in Urban India - Journal of Consumer Marketing, (2021); citations not specified, behavioral study.*
9. *Security Concerns in Digital Payment Adoption in Urban India - Information Systems Frontiers, (2022); citations via Springer, count unspecified.*
10. *Impact of Digital Payments on Urban Micro, Small, and Medium Enterprises in India - Journal of Small Business and Entrepreneurship, (2023); citations not resolved, MSME-focused.*
11. *"Cashless: India's Digital Revolution" by R. Gandhi (Former Deputy Governor, RBI) Publisher: Penguin India, 2018*
12. *"A Study on the Growth of Digital Payments in India" International Journal of Research in Engineering, IT and Social Sciences, 2018*
13. *"Impact of Digital Payment on the Indian Economy" by D. Singh and P. Paliwal International Journal of Management Studies, 2019*
14. *"Urban Consumer Perception Towards Digital Payments: A Case Study of Bengaluru "Available on Shodhganga (INFLIBNET) <https://shodhganga.inflibnet.ac.in>*
15. *Reserve Bank of India (RBI) – Annual Report & Report on Trend and Progress of Banking in India. Chapters on payment systems, digital initiatives, UPI, etc. <https://www.rbi.org.in>*
16. *NITI Aayog – Digital Payment: Trends, Issues, and Policy Recommendations (2019) Urban use cases, QR code systems, interoperability. <https://niti.gov.in>*