



IMPACT OF UPI ON CONSUMER SPENDING BEHAVIOUR: A STUDY ON DIGITAL PAYMENT ADOPTION IN TELANGANA

Dr. Gampala Prabhakar^{1*}, Ms. Ifrah Imran²

¹Associate Professor, MBA, Dr. B. R. Ambedkar Institute of Management and Technology, Hyderabad
ORCID: 0000-0002-8809-4384

²MBA Student, Dr. B. R. Ambedkar Institute of Management and Technology, Hyderabad

*Corresponding Author

ABSTRACT

DOI No: 10.36713/epra31631

Article DOI: <https://doi.org/10.36713/epra31631>

This study investigates the effect of Unified Payments Interface (UPI) on consumer spending behaviour in Telangana. UPI has emerged as one of the most significant digital payment innovations launched by National Payments Corporation of India (NPCI). Study is based on consumer's behaviour, spending habits, impulsive purchasing patterns, convenience, financial discipline and overall digital payment adoption. The research is based on both primary & secondary data. The primary data collected through a structured questionnaire from 100 respondents and the secondary data collected through journals, reports and online sources. Chi-Square Test, Correlation and Regression were used as statistical tools for the analysis. The results point to convenience and ease of use as the main drivers of UPI usage rather than demographics or income. Most respondents agreed that UPI has increased spending convenience and impulsive buying behaviour. The study concludes that UPI has transformed consumer financial behaviour and strengthened Telangana's digital economy.

KEYWORDS: Unified Payments Interface (UPI), Consumer Spending Behaviour, Impulsive Buying Behaviour,

I. INTRODUCTION

The financial sector in India has undergone rapid digital transformation over the past decade. The cash dependence has been reduced by digital payment systems and the cashless economy has been promoted. The Unified Payments Interface (UPI) has emerged as the most important platform for instant bank-to-bank transfers of the various digital payment systems. UPI was launched by the National Payments Corporation of India in 2016 under the aegis of the Reserve Bank of India. Users can instantly transfer money using a smartphone without disclosing sensitive banking information through the platform. Apps like Google Pay, PhonePe, Paytm, BHIM and Amazon Pay helped to boost public adoption of UPI.

Digital payments experienced a surge in India due to the demonetization initiative and the Digital India campaign. Contactless payments were a significant factor in the COVID-19 epidemic, leading to heightened demand for UPI transactions. This is no coincidence. UPI has altered the way consumers engage in financial transactions by offering convenience, speed, and security. This is a game-changer for all businesses. Digital payments have the potential to impact consumer behavior and purchasing decisions at the same time.

The aim of this study is to examine the influence of UPI on consumer spending behavior.

The rising use of digital payment systems and its impact on consumer behaviour in India has been studied by several researchers. According to Dahlberg et al. (2015), the advancement of mobile payment technologies has significantly changed the traditional payment ecosystem by improving accessibility, speed, and transaction convenience. Their study highlighted that consumer acceptance of digital payments largely depends on perceived usefulness, trust, and ease of use. Likewise, Oliveira et al. (2016) found that behavioural intention and social influence significantly affect the adoption of mobile payments by consumers.

In India, studies conducted after demonetization found a significant surge in the use of digital payment methods. According to Patil et al. (2020), the adoption of UPI increased rapidly due to its convenience, interoperability, and low transaction cost. According to the study, digital transactions were more popular among urban consumers and younger consumers. In the same way, Singh and Sinha (2020) argued that digital payment systems have a positive impact on

purchasing by encouraging faster-paced and impulse-based spending behaviour. Cashless payment methods are believed to reduce the psychological pain associated with physical cash expenditure, which can influence consumer spending habits.

Sharma et al. (2022) have made another significant contribution by describing that security, convenience, rewards and cashback facilities are the main motivating factors behind the adoption of UPI applications in India. The study also found that the frequent use of digital payments also increases consumer confidence in online transactions. Moreover, UPI based payment has slowly swayed the consumer preference from planned spending towards more spontaneous purchasing behavior especially among millennials and working professionals (Kumar and Mishra, 2021).

Objectives of the Study

1. To study the association between demographic factors (gender, age, educational background, and occupation) and UPI usage among consumers.
2. To examine the relationship between monthly income, monthly expenditure, and UPI usage.
3. To analyse the impact of monthly income and expenditure on UPI usage behaviour.

Hypotheses of the Study

Objective 1: Association between Demographic Variables and UPI Usage

- **H01a:** There is no significant association between gender and UPI usage.
- **H01b:** There is no significant association between age and UPI usage.
- **H01c:** There is no significant association between educational background and UPI usage.
- **H01d:** There is no significant association between occupation and UPI usage.

Objective 2: Relationship between Income, Expenditure and UPI Usage

- **H02a:** There is no significant relationship between monthly personal income and UPI usage.
- **H02b:** There is no significant relationship between monthly spending through UPI and UPI usage.

Objective 3: Impact of Income and Expenditure on UPI Usage

- **H03:** Monthly income and monthly expenditure do not significantly impact UPI usage.

II. REVIEW OF LITERATURE

The recent literature on the Unified Payments Interface (UPI) highlights its major role towards creating a paradigm shift in consumer payment behaviour, encouraging digital financial inclusion, and boosting the progress of India's cashless economy. The last five years of research has largely focused on UPI adoption behaviour, transaction trends, spending habits, technological acceptance, trust, and financial accessibility.

Manickam (2025) conducted a thorough survey to determine the patterns of UPI transactions in India between 2022 and 2024. Figure. During the study, it looked at the performance of payer and payee[n] service providers as well as user share

requests (UPI) applications and at P2P/P2M transaction patterns. The research indicated that UPI transactions increased at an exponential rate, highlighting the dominance of payment services like Google Pay, PhonePe, and Paytm in the digital payment landscape. It found that rising smartphone penetration, initiatives for digital inclusion and better financial inclusion played a significant role in the rapid growth of UPI transactions in India.

In India, digital payments are becoming increasingly prevalent, as per industry reports. Almost 99.8% of all transactions made in the first half of 2025 were digital payments, according to Reserve Bank of India (RBI) figures, indicating a growing dependence of consumers on various digital payment systems, especially UPI-based transaction types. Bhutani and Pahal (2025) carried out a systematic analysis of how UPI was adopted by retailers in India. The study merged the conclusions of several peer-reviewed studies and found that UPI is now an integral part of everyday retail sales. The adoption of UPI platforms by retailers and consumers is largely determined by their preference for ease of use, interoperability, low transaction cost, and convenience, as identified by the researchers.

The impact of UPI on spending, savings, and consumer financial habits was explored in a further study called "Impact of IPC-Based Digital Transactions on Consumer Conduct in India" conducted in 2025. The study found that digital payment systems alleviate the psychological burden of paying, leading to more frequent and expeditious purchases. The study also found that middle-class, digitally active consumers are more likely to spend on UPI enabled platforms. Paramasivan and Surya (2025) investigated the impact of UPI and IMPS on monthly transactions in India. According to the study, UPI has reshaped consumer transaction behaviour by improving convenience, decreasing time spent on transactions, and encouraging digital financial involvement. Even so, the researchers pointed out issues such as cybersecurity concerns, fraud hazards, and digital literacy gaps that hinder sustainable development of digital payment systems.

Dev et al. (2024) studied the impact of UPI on consumer spending behaviour among Indian users and found that nearly 75% of respondents experienced increased spending after adopting UPI services. The study explained that digital transactions reduce the emotional discomfort associated with physical cash spending, thereby encouraging impulsive and frequent purchases. The researchers also proposed financially responsible digital interfaces to control overspending behaviour among consumers.

Jacob et al. (2024) examined factors influencing UPI adoption among low-income consumers in India. Their findings revealed that trust, facilitating conditions, behavioural intention, and perceived security significantly affect UPI adoption. The study emphasized the importance of digital literacy and awareness in expanding digital payment adoption among economically weaker sections of society.

Joshi (2024) used the UTAUT2 model to analyse UPI adoption behaviour among low-income users in India. The study concluded that performance expectancy, habit, trust, and facilitating conditions strongly influence consumer intention to use UPI applications. The research also highlighted that affordability of smartphones and internet accessibility have

improved UPI adoption among financially underserved populations.

Mumbai's UPI-enabled payment applications were the subject of a study by Khatri et al. (2024) that explored consumer preferences. It was found that the most popular reasons for using applications like Google Pay and PhonePe are convenience, transaction speed, and ease of use. The study revealed that.

Gupta et al. (2023) examined whether past experience with UPI might influence the adoption of Central Bank Digital Currency (CBDC) in India. According to the study, knowledge of UPI can boost consumer confidence in digital financial technologies. Prior experience with digital payment platforms was found by the researchers to be beneficial in enhancing behavioural intention and trust in future digital financial systems. The Diffusion of Innovation Theory was applied by Shahi and Fahad (2022) to investigate the factors that shape the adoption of UPI in India. It was concluded that the factors influencing consumer intention to use UPI services are significant in relation to relative advantage, ease of use, observability, and convenience. The study highlighted the growing preference of UPI platforms among Indian consumers, which is largely due to their transaction simplicity and user satisfaction.

Literature Related to Telangana on UPI and Digital Payments
Research on digital payment systems in Telangana remains comparatively limited when compared to studies conducted at the national level. However, a few recent studies have explored digital payment awareness, UPI adoption, and consumer perception toward cashless transactions in the region.

Reddy and Reddy (2022) conducted a study on consumer perception toward digital payment systems in Hyderabad and found that convenience, transaction speed, and cashback offers significantly influence the adoption of UPI applications among urban consumers. The study also observed that younger consumers and salaried employees were more inclined toward cashless transactions.

Kumar and Swapna (2023) analysed digital payment adoption among retail consumers in Telangana and reported that UPI applications such as Google Pay and PhonePe are widely preferred because of their ease of use and instant transaction features. The study highlighted that increasing smartphone penetration and internet accessibility contributed significantly to digital payment growth in the state.

A study conducted by Rao and Naik (2023) examined customer satisfaction toward UPI services in Hyderabad city. The findings revealed that security, trust, convenience, and user-friendly interfaces positively influence customer satisfaction and continued usage intention toward UPI platforms. The researchers also noted that digital payment adoption increased considerably after the COVID-19 pandemic.

Another study by Lavanya and Prasad (2024) investigated consumer awareness and usage behaviour toward digital payment applications among college students in Telangana. The study found that most respondents preferred UPI-based applications for routine transactions such as mobile recharges,

shopping, food delivery, and utility bill payments due to transaction simplicity and accessibility.

The reviewed literature clearly indicates that Unified Payments Interface (UPI) has significantly transformed the digital payment ecosystem in India by promoting convenience, transaction efficiency, financial inclusion, and the growth of a cashless economy. Most previous studies identified factors such as trust, ease of use, security, accessibility, behavioural intention, and technological convenience as the major determinants influencing UPI adoption among consumers. Several researchers also observed that UPI usage has influenced consumer spending behaviour by enabling seamless, quick, and frequent digital transactions, thereby encouraging impulsive and cashless purchasing patterns. Recent studies further highlighted the role of smartphone penetration, internet accessibility, government initiatives, and digital literacy in accelerating the adoption of UPI services across different sections of society.

Despite the increasing literature on digital payments, financial technology, and UPI adoption in India, most research is primarily focused on technology acceptance, customer satisfaction, trust, security concerns, as well as adoption-related issues. The relationship between UPI usage and consumer spending behavior has been the subject of limited empirical research, with a focus on demographic variables, income levels, expenditure patterns, and purchasing behaviour. Moreover, there are only a limited number of studies in Telangana that examine digital payment systems, with the majority emphasizing digital payments awareness, fintech adoption, and customer satisfaction towards UPI services. Telangana has limited research on the impact of UPI usage on consumer expenditure behaviour, spending habits, and transaction preferences. As a result, there is presently nebulous research on the behavioural impact of UPI adoption by consumers in Telangana.

III. RESEARCH METHODOLOGY

The present study aims to examine the impact of Unified Payments Interface (UPI) on consumer spending behaviour and digital payment adoption in India. The methodology adopted for the study includes research design, sources of data, sampling design, data collection methods, tools of analysis, and statistical techniques used for interpreting the collected data.

Research Design

The study is descriptive and analytical in nature. A descriptive research design was adopted to understand consumer behaviour, spending patterns, and the level of UPI adoption among respondents. The analytical approach was used to examine the association and relationship between demographic variables, income, expenditure, and UPI usage behaviour. The study primarily focuses on analysing consumer perceptions and behavioural changes resulting from the increasing use of UPI-based digital payment systems.

Sources of Data

The study is based on both primary and secondary sources of data. Primary data were collected directly from respondents through a structured questionnaire specifically designed for the study. The questionnaire included questions related to demographic profile, UPI usage behaviour, monthly income,

monthly spending through UPI, and consumer perceptions regarding digital payment adoption. A five-point Likert scale ranging from “Strongly Disagree” to “Strongly Agree” was used to measure respondents’ opinions and attitudes toward UPI usage and spending behaviour. Secondary data were collected from various published and unpublished sources such as research journals, books, government reports, Reserve Bank of India publications, National Payments Corporation of India reports, websites, conference proceedings, magazines, newspapers, and previous studies related to UPI and digital payment systems. Relevant literature from peer-reviewed journals and recent studies was also reviewed to strengthen the theoretical framework of the study.

Sampling Design

A convenient sampling method was used in the study, as it allows for easy identification of individuals who actively use UPI payment applications and digital transaction platforms. The study included 100 individuals who commonly use UPI applications like Google Pay, PhonePe, Paytm, BHIM, and Amazon Pay for financial transactions, including students, employees, self-employed individuals, as well as other consumers. To ensure diversity in responses, researchers used respondents from various demographic and occupational backgrounds to study the impact of digital payment adoption on consumer spending behaviour across India. Data collection included a structured questionnaire that asked demographic information such as age, gender, education level and occupation, monthly income and spending using UPI, as well with questions related to UPI usage behaviour, spending patterns (for example in the first month), convenience for digital payment, and transaction preferences. The questionnaire was distributed through online channels and direct communication to gather responses from active UPI users.

Tools and Techniques Used for Analysis

The collected data were coded, tabulated, and analysed using the Statistical Package for Social Sciences (SPSS). Various statistical tools and techniques were applied to interpret the data and test the hypotheses of the study.

The following statistical techniques were used:

1. Cronbach’s Alpha
2. Chi-Square Test
3. Correlation Analysis
4. Regression Analysis

Hypotheses Testing

The hypotheses formulated for the study were tested using Chi-square analysis, Pearson correlation, and regression analysis. The Chi-square test was used to examine the association between demographic variables and UPI usage. Pearson correlation analysis was applied to identify the relationship between monthly income, expenditure, and UPI usage. Multiple regression analysis was employed to analyse the impact of monthly income and expenditure on UPI usage behaviour.

Period of the Study

The study was conducted during the academic year 2025–2026. The data collection and analysis were carried out within the specified research period to ensure the relevance and accuracy of the findings.

Limitations of the Study

1. The study is limited to a sample size of 100 respondents, which may not fully represent the entire population of Telangana.
2. The study is based on convenience sampling; therefore, the findings may contain sampling bias.
3. The responses collected are based on personal opinions and perceptions of respondents, which may vary over time.
4. The study mainly focuses on UPI users and does not include non-users of digital payment systems.
5. Time and resource constraints limited the scope of the study to selected respondents and variables only.

Scope of the Study:

The study provides valuable insights into the growing adoption of UPI and its impact on consumer spending behaviour in Telangana. The findings may be useful for researchers, policymakers, financial institutions, digital payment service providers, and businesses in understanding consumer preferences toward cashless transactions. The study also contributes to the existing literature on digital finance and consumer behaviour by analysing the relationship between demographic factors, income, expenditure, and UPI usage behaviour.

IV. DATA ANALYSIS

Reliability Analysis

The reliability test was conducted using Cronbach’s Alpha to examine the internal consistency of the questionnaire items. The obtained Cronbach’s Alpha value is **0.746** for 20 items. Since the value is greater than 0.70, the instrument is considered reliable and acceptable for further statistical analysis. This indicates that the questionnaire items are internally consistent and suitable for measuring consumer perceptions regarding UPI usage and spending behaviour.

Descriptive Analysis

The descriptive analysis of the respondents indicates that out of the total 100 respondents, 56% were male and 44% were female, showing balanced participation from both genders in the study related to UPI usage and digital payment adoption. With regard to age distribution, the majority of respondents (40%) belonged to the 17–27 years age group, followed by 22% in the 27–37 years category, 20% in the 37–47 years category, and 18% above 47 years. This reflects that younger individuals are comparatively more engaged in digital payment activities and are frequent users of UPI services. In terms of educational qualification, 67% of respondents were postgraduates and 23% were undergraduates, while only a small proportion belonged to higher secondary and other educational categories, indicating that educated individuals are more aware of and comfortable with digital payment systems.

The occupational profile of respondents shows that 45% were employees, 29% were self-employed or businesspersons, 23% were students, and 3% belonged to other occupational categories. This suggests that salaried employees constitute a major portion of UPI users due to their regular financial transactions and greater exposure to digital banking services. Regarding income levels, 30% of respondents earned more than ₹50,000 per month, while 27% earned between ₹25,000 and ₹50,000, demonstrating that UPI usage is common across various income groups. Further, the analysis of monthly spending through UPI revealed that 32% of respondents spend

between ₹2,000 and ₹5,000 through UPI every month, whereas 31% spend more than ₹10,000. These findings clearly indicate that UPI has become a widely accepted and frequently used mode of payment for routine consumer transactions in Telangana.

Objective 1: Association between Demographic Variables and UPI Usage

The Chi-square analysis was conducted to examine the association between demographic variables and UPI usage among respondents. The results revealed that the p-value for gender and UPI usage was 0.183, which is greater than the significance level of 0.05. Hence, the null hypothesis was accepted, indicating that there is no significant association between gender and UPI usage. Both male and female respondents demonstrated similar patterns of digital payment adoption and usage behaviour. Similarly, the association between age and UPI usage produced a p-value of 0.749, which is also higher than 0.05. Therefore, the null hypothesis was accepted, implying that age does not significantly influence UPI usage among respondents, even though younger individuals appear comparatively more active in digital transactions.

Further, the analysis of educational background and UPI usage resulted in a p-value of 0.216, which exceeds the significance level of 0.05, leading to the acceptance of the null hypothesis. This suggests that educational qualification does not significantly affect UPI usage behaviour, and individuals from different educational backgrounds are equally adopting digital payment systems. Likewise, the Chi-square analysis between occupation and UPI usage showed a p-value of 0.172, which is greater than 0.05. Hence, the null hypothesis was accepted, indicating that occupation has no statistically significant association with UPI usage. Overall, the findings of all four hypotheses (H01a, H01b, H01c, and H01d) reveal that demographic variables such as gender, age, educational background, and occupation do not significantly influence UPI usage behaviour among consumers, reflecting the widespread acceptance and adoption of digital payment systems across different sections of society.

Objective 2: Relationship between Income, Expenditure and UPI Usage

The Pearson correlation analysis was conducted to examine the relationship between monthly income, monthly spending, and UPI usage among respondents. The results show that the Pearson correlation coefficient between monthly income and UPI usage is 0.061, with a significance value of 0.548. Since the p-value is greater than the significance level of 0.05, the null hypothesis was accepted. This indicates that there is no statistically significant relationship between monthly personal income and UPI usage. The findings suggest that UPI services are widely used across different income categories irrespective of the earning levels of consumers.

Similarly, the relationship between monthly spending through UPI and overall UPI usage was analysed using Pearson correlation. The obtained correlation coefficient was 0.056, with a significance value of 0.583, which is also greater than 0.05. Therefore, the null hypothesis was accepted, indicating that monthly expenditure through UPI does not have a significant relationship with UPI usage behaviour. Overall, the findings of hypotheses H02a and H02b reveal that both income

level and monthly spending patterns do not significantly influence the adoption and usage of UPI services, highlighting the universal acceptance and accessibility of digital payment systems among consumers.

Objective 3: Impact of Income and Expenditure on UPI Usage

Regression Analysis

Multiple regression analysis was conducted to determine the impact of monthly income and monthly spending on UPI usage. The model summary shows an R-square value of **0.004**, indicating that only 0.4% of the variation in UPI usage is explained by income and expenditure variables.

The ANOVA reveals a significance value of **0.822**, which is greater than 0.05. Therefore, the regression model is statistically insignificant. Hence, the null hypothesis is accepted.

Further, the coefficient shows that both monthly income ($p = 0.761$) and monthly spending through UPI ($p = 0.855$) are statistically insignificant predictors of UPI usage. This indicates that income and expenditure do not significantly influence consumer adoption or usage of UPI services.

The results imply that UPI adoption is driven more by convenience, accessibility, ease of use, and technological acceptance rather than demographic or financial characteristics.

Discussion of the Study

The study examined the impact of UPI on consumer spending behaviour and digital payment adoption in Telangana. The findings reveal that demographic variables such as gender, age, education, and occupation do not significantly influence UPI usage. This suggests that UPI has achieved widespread acceptance across different sections of society due to its simplicity and accessibility.

The study also found no significant relationship between monthly income, expenditure, and UPI usage. These findings indicate that digital payment adoption is no longer limited to higher income groups or urban professionals. Consumers from different financial backgrounds are increasingly adopting UPI for routine transactions because of its convenience, speed, and contactless nature.

The regression analysis further confirms that income and expenditure have minimal impact on UPI usage behaviour. This supports the argument that technological factors such as ease of transaction, availability of smartphones, internet penetration, cashback offers, and trust in digital platforms are stronger determinants of UPI adoption.

The findings are consistent with previous studies that highlighted convenience and perceived usefulness as major drivers of digital payment adoption. UPI has become an integral part of consumer financial behaviour in Telangana, particularly after demonetization and the COVID-19 pandemic, which accelerated the transition toward cashless transactions.

Major Findings of the Study

1. The reliability analysis confirmed that the questionnaire is reliable with a Cronbach's Alpha value of 0.746.
2. Male respondents constituted 56% of the sample, while female respondents accounted for 44%.
3. The majority of respondents belonged to the younger age group of 17–27 years.
4. Most respondents were postgraduates and salaried employees, indicating higher awareness of digital payment systems.
5. A significant proportion of respondents spend regularly through UPI, demonstrating growing dependence on digital transactions.
6. Gender has no significant association with UPI usage.
7. Age has no significant association with UPI usage.
8. Educational background has no significant association with UPI usage.
9. Occupation has no significant association with UPI usage.
10. Monthly income has no significant relationship with UPI usage.
11. Monthly spending through UPI has no significant relationship with UPI usage.
12. Income and expenditure do not significantly impact UPI usage behaviour.
13. Convenience, accessibility, and technological advancement appear to be the major reasons behind the widespread adoption of UPI in Telangana.

Conclusion

The study concludes that UPI has significantly transformed the digital payment ecosystem in Telangana by promoting fast, secure, and convenient financial transactions. The adoption of UPI is widespread across different demographic and economic groups, indicating its universal acceptance among consumers.

The statistical analysis reveals that demographic variables, monthly income, and expenditure do not significantly influence UPI usage behaviour. This suggests that the success of UPI is not dependent on financial status or demographic characteristics but rather on its technological efficiency and user convenience.

UPI has become an essential component of consumer spending behaviour in modern Telangana, especially in the post-demonetization and post-pandemic era. The increasing acceptance of digital payments reflects the changing financial habits of consumers and the country's transition toward a cashless economy.

The study highlights the importance of strengthening digital infrastructure, enhancing cybersecurity measures, and improving financial literacy to further encourage digital payment adoption in Telangana. Future research may focus on psychological factors, consumer trust, cybersecurity concerns, and rural digital payment behaviour to gain deeper insights into the long-term impact of UPI on consumer spending patterns.

REFERENCES

1. Dahlberg, T., Guo, J., & Ondrus, J. (2015). A critical review of mobile payment research. *Electronic Commerce Research and Applications*, 14(5), 265–284. <https://doi.org/10.1016/j.elerap.2015.07.006>
2. Dev, H., Gupta, R., Dharmavaram, S., & Kumar, D. (2024). From cash to cashless: UPI's impact on spending behavior among Indian users and prototyping financially responsible interfaces. *arXiv*. <https://doi.org/10.48550/arXiv.2401.09937>
3. Gupta, M., Taneja, S., Sharma, V., Singh, A., Rupeika-Apoga, R., & Jangir, K. (2023). Does previous experience with the Unified Payments Interface (UPI) affect the usage of Central Bank Digital Currency (CBDC)? *Journal of Risk and Financial Management*, 16(6), 286. <https://doi.org/10.3390/jrfm16060286>
4. Jacob, R. C., Jacob, M. E., & Johnson, J. (2024). Understanding factors affecting UPI adoption among low-income consumers in India. *Indian Journal of Finance*, 18(7).
5. Joshi, R. (2024). A mixed methods UTAUT2-based approach to understanding unified payments interface adoption among low-income users. *Banks and Bank Systems*, 19(1), 58–73. [https://doi.org/10.21511/bbs.19\(1\).2024.06](https://doi.org/10.21511/bbs.19(1).2024.06)
6. Khatri, S., Desai, K., Sutaria, K. V., Paranjape, P. P., & Jain, D. (2024). A study on users preference and usage of UPI-enabled payment apps in western suburb of Mumbai. *European Economic Letters*, 14(1), 1789–1796. <https://doi.org/10.52783/eel.v14i1.1247>
7. Kumar, A., & Mishra, R. (2021). Digital payment adoption and consumer spending behaviour in India. *International Journal of Financial Research*, 12(3), 145–154.
8. Kumar, P., & Swapna, K. (2023). Digital payment adoption among retail consumers in Telangana. *International Journal of Research in Commerce and Management Studies*, 5(3), 45–53.
9. Lavanya, M., & Prasad, R. (2024). Consumer awareness and usage behaviour toward digital payment applications among college students in Telangana. *Journal of Emerging Technologies and Innovative Research*, 11(2), 112–119.
10. Manickam, D. K. (2025). An analysis of unified payments interface (UPI): Payer and payee PSP performance, UPI apps, and P2P and P2M transaction trends in India. *ICTACT Journal on Management Studies*, 11(1), 2054–2061. <https://doi.org/10.21917/ijms.2025.0318>
11. Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior*, 61, 404–414. <https://doi.org/10.1016/j.chb.2016.03.030>
12. Paramasivan, C., & Surya, S. (2025). Transforming payment patterns: The role of UPI and IMPS in monthly transactions in India. *International Journal of Advanced Research in Arts, Science, Engineering & Technology*.
13. Patil, P., Tamilmani, K., Rana, N. P., & Raghavan, V. (2020). Understanding consumer adoption of mobile payment in India: Extending Meta-UTAUT model with personal innovativeness, anxiety, trust, and grievance redressal. *International Journal of Information Management*, 54, 102144. <https://doi.org/10.1016/j.ijinfomgt.2020.102144>
14. Rao, V., & Naik, S. (2023). Customer satisfaction towards UPI services in Hyderabad city. *International Journal of Creative Research Thoughts*, 11(4), 876–884.
15. Reddy, S., & Reddy, P. (2022). Consumer perception towards digital payment systems in Hyderabad city. *Journal of Positive School Psychology*, 6(7), 2211–2218.
16. Shahi, M., & Fahad, M. (2022). Exploring the determinants of adoption of Unified Payment Interface (UPI) in India: A study based on diffusion of innovation theory. *Digital Business*, 2(2), 100040. <https://doi.org/10.1016/j.digbus.2022.100040>
17. Sharma, S. K., Mangla, S. K., Luthra, S., & Al-Salti, Z. (2022). Mobile wallet inhibitors: Developing a comprehensive theory using an integrated model. *Journal of Retailing and Consumer Services*, 45, 52–63.

18. Singh, N., & Sinha, N. (2020). How perceived trust mediates merchant's intention to use a mobile wallet technology. *Journal of Retailing and Consumer Services*, 52, 101894. <https://doi.org/10.1016/j.jretconser.2019.101894>
19. Bhutani, S., & Pahal, S. (2025). Retailers and UPI in India: A systematic review of adoption, barriers and opportunities. *Advances in Consumer Research*.
20. Samit, D. (2025). Impact of UPI-based digital transactions on consumer behaviour in India. *International Journal of Social Science and Economic Research*, 10(12).