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## A STUDY ON IMPACT OF UPI ON INDIAN DIGITAL PAYMENT

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### ABSTRACT

The world's financial and payment systems have been drastically altered by the quick development of digital technology, and India is no exception. Because of their accessibility, quickness, and ease of use, digital payment platforms have been increasingly popular in recent years. The National Payments Corporation of India (NPCI) developed and oversees the Unified Payments Interface (UPI), one of the most significant advancements in India's digital payment ecosystem. Through smartphone applications, consumers can rapidly transfer money between bank accounts using UPI, a real-time payment system. Since its inception, UPI has significantly changed how people and companies in India carry out financial transactions. It has simplified the payment process by enabling users to make secure transactions using smartphones without the need for cash or traditional banking methods. This study's main goal is to investigate how UPI has affected India's digital payment system. The study intends to examine a number of UPI usage-related characteristics, including as user awareness, adoption trends, usage frequency, perceived advantages, user difficulties, and general satisfaction with UPI services. Additionally, the study aims to comprehend how various groups of people embrace and use UPI in relation to demographic parameters including age, gender, occupation, and place of residence. The study looks at these elements in an effort to give a thorough picture of how UPI has impacted the expansion of digital payments in India. The majority of respondents are aware of UPI and actively use it for digital transactions, according to the study's findings. This suggests that UPI has been widely acknowledged and accepted by the populace. The findings also indicate that a large number of respondents have been using UPI for a number of years, indicating that it has developed into a reputable and well-established payment mechanism. UPI is crucial for everyday financial tasks including paying

utility bills, buying goods and services, sending money to friends and family, and making online payments, as seen by the large percentage of respondents who said they use it daily or weekly.

**KEYWORDS:** UPI, Digital Payments, Financial Inclusion, Cashless Economy, Consumer Behavior, User Adoption, Transaction Efficiency, FinTech, Digital Transformation, Mobile Payments.

## **INTRODUCTION**

Due to the quick advancement of digital technologies, India's financial and payment systems have seen a dramatic change during the last ten years. People and companies are adopting digital payment methods due to the increasing use of smartphones, better internet access, and encouraging government measures. Money can be swiftly and securely exchanged between people, companies, and financial institutions through digital payments, which are transactions that happen electronically without the need for actual cash. These payment methods include debit and credit card transactions, online banking, mobile wallets, and mobile-based payment systems. The nation's financial transactions are now more accessible, transparent, and efficient thanks to the growing use of digital payment methods.

The Unified Payments Interface (UPI) is one of the most significant advancements in India's digital payment ecosystem. The National Payments Corporation of India introduced UPI in 2016 with the goal of developing a straightforward, safe, and instantaneous payment system that enables consumers to move money between bank accounts using mobile devices. UPI allows for instantaneous money transfers around-the-clock, seven days a week, in contrast to conventional banking techniques like NEFT or RTGS, which could take several hours or only work during certain banking hours. The technology removes the need to provide long bank account details during transactions by using a unique Virtual Payment Address (VPA). Users now have more access to and convenience with digital payments.

By streamlining the financial transaction process, UPI's launch has completely changed India's digital payment ecosystem. Users can conveniently send and receive money, pay utility bills, recharge mobile phones, purchase online, and make payments at retail establishments with the aid of mobile applications. Millions of users can now easily make financial transactions thanks to the integration of UPI services into the systems of several digital payment companies, including Google Pay, PhonePe, and Paytm. Even tiny vendors, street vendors, and neighborhood shops can now accept digital payments without the need for

costly payment infrastructure thanks to the introduction of QR codes, which has further streamlined the payment process.

The expansion of UPI in India and the promotion of digital payments have both benefited greatly from government initiatives. Initiatives like Digital India seek to improve digital literacy and develop the nation's technology infrastructure. Additionally, the demonetization of India in 2016 encouraged people to use digital payment systems instead of cash. The popularity of UPI and other electronic payment systems accelerated at this time since more people and businesses started using digital platforms for their everyday activities.

Additionally, the COVID-19 pandemic strengthened the expansion of digital transactions by raising demand for contactless payment options.

By giving those who previously lacked formal banking facilities access to banking services, UPI has not only increased the efficiency of financial transactions but also promoted financial inclusion. Through mobile devices, it enables residents of rural and semi-urban areas to engage in digital financial activities. By making it simple for them to accept digital payments, the platform has empowered small businesses and merchants, increasing their clientele and enhancing transaction transparency. Furthermore, UPI transactions are typically free or have very low fees, making them a cost-effective payment choice for both customers and companies.

UPI's growing significance in India's digital payment ecosystem is demonstrated by the swift expansion of its transactions in recent years. UPI is widely accepted by users, as seen by the millions of transactions it processes every day. The system has been crucial in boosting the digital economy, lowering dependency on cash, and enhancing financial transparency.

Consequently, UPI has emerged as one of India's most important financial inventions.

Assessing how India's financial ecosystem is changing requires an understanding of how UPI affects digital payments. The purpose of this study is to examine how UPI has affected consumer payment behavior, boosted the uptake of digital payment systems, and aided in the creation of an inclusive and effective financial ecosystem in India.

## **Literature Review**

Joshi, Pathak, and Kulkarni (2024) investigated user attitudes regarding digital payment systems and the uptake of Unified Payments Interface (UPI) applications in India. The researchers examined how UPI's ability to facilitate quick money transfers via smartphones has revolutionized traditional banking. The study emphasized that UPI offers a practical and effective payment option that enables consumers to make merchant and peer-to-peer

payments without going to a bank. Due to their knowledge with technology and digital platforms, the results showed that young, educated customers are the main UPI adopters.

However, the study also identified issues with fraud and cybersecurity risks, which would prevent elderly consumers from adopting. Despite these difficulties, the authors came to the conclusion that UPI has boosted India's transition to a cashless economy and has aided in the expansion of digital payments in that nation.

Kumar (2024) investigated UPI acceptance and usage trends in Bihar's Bhagalpur district. In order to understand how digital payment systems are used in routine financial transactions, the study gathered data from respondents from various demographic categories. According to the study, UPI's speed and convenience make it popular for tasks like bill payment, money transfers, and online shopping. Young adults with smartphones and internet access made up the bulk of users. The study also highlighted how adoption is strongly influenced by digital literacy and technological trust. However, obstacles to wider adoption were noted, including problems with network connectivity, technological difficulties, and worries about fraud. The study came to the conclusion that enhancing digital awareness and fortifying security measures will contribute to a rise in UPI adoption and usage throughout India.

In a research on the evolution of digital payment systems in India, Kumawat (2025) concentrated on UPI's function in enabling electronic transactions. According to the study, the National Payments Corporation of India's launch of UPI transformed digital payments by offering a convenient, safe, and real-time payment system. According to the study, UPI has made financial transactions easier by allowing consumers to connect several bank accounts to a single mobile app. Without requiring bank information, this tool enables instantaneous money transfers for both people and corporations. The study also showed that more consumers are adopting digital payments due to UPI's affordability and accessibility. The author came to the conclusion that UPI has greatly aided in the development of a cashless economy and has grown to be a key part of India's digital payment ecosystem.

Shetty, Yashaswini, Kumar, and Shashikanth (2024) looked at how many microbusinesses in Mysore were using UPI. The study concentrated on small vendors who increasingly take digital payments from clients, such as street food vendors and neighborhood store owners. According to the study, retailers now find it simpler to accept payments via UPI apps due to the extensive use of smartphones and QR codes. Digital payments, according to some small business owners, have improved transaction transparency and helped them keep better financial records. The study did, however, also draw attention to some issues, including poor internet connectivity, a lack of digital literacy among older sellers, and sporadic transaction

failures. Despite these challenges, the authors came to the conclusion that UPI has significantly contributed to the integration of small merchants into the digital financial ecosystem and has increased the efficiency of business transactions.

Sahun (2024) looked at how UPI changed the way small and medium-sized businesses (SMEs) in India handled their finances. In order to determine how digital payment methods affect business performance, the study gathered comments from entrepreneurs in a variety of industries. The results showed that UPI has improved the efficiency and security of commercial transactions. Additionally, it lessens reliance on currency and streamlines the payment process for both consumers and businesses. According to the survey, companies can track sales, keep digital records, and increase financial transparency with the help of digital payment systems. But the study also found obstacles like poor digital infrastructure in some areas and a lack of technology expertise. The author came to the conclusion that, in spite of these difficulties, UPI has greatly increased financial accessibility and aided in the expansion of India's digital economy.

Lakshmi (2024) examined how consumer behavior and financial inclusion were affected by the emergence of digital payment systems in India. The study highlighted how government programs like demonetization and Digital India hastened the uptake of digital payment systems. Because UPI enables instantaneous money transfers through mobile applications, it has become one of the most popular payment systems. The study also showed that urban and semi-urban residents now have greater financial accessibility thanks to digital wallets and UPI-based apps like PhonePe and Google Pay. Additionally, the COVID-19 pandemic greatly enhanced the adoption of contactless payment devices, which in turn made UPI transactions even more popular. The author came to the conclusion that by encouraging financial participation, convenience, and transparency among people and enterprises, digital payment platforms are revolutionizing India's financial system.

A research by Baradwaj (2023) examined Mumbai's small merchants' use of UPI. The goal of the study was to identify the variables affecting local vendors' and store owners' adoption of digital payment systems. The results demonstrated that a large number of businesses began taking UPI payments as a result of growing consumer demand and the ease of digital transactions. Merchants can now accept payments more easily without the need for costly point-of-sale devices thanks to the use of QR codes and mobile applications. Additionally, the study discovered that digital payments increased financial transparency and decreased

the danger of handling cash. However, because to worries about transaction failures and cybersecurity dangers, some retailers continued to favor cash payments. According to the study's overall findings, UPI has significantly contributed to the growth of digital financial services for small enterprises.

Dev, Gupta, Dharmavaram, and Kumar (2024) investigated how UPI payments affected Indian consumers' purchasing habits. To examine how digital payments impact financial practices, the researchers interviewed participants and administered a survey. The results showed that because digital transactions are rapid and simple, many respondents saw an increase in expenditure after using UPI. Digital payments, in contrast to cash payments, lessen the psychological awareness of expenditure, which could promote rash purchases. The study also emphasized the value of budgeting tools and financial literacy in assisting consumers in efficiently managing their spending. The authors stressed that UPI offers important benefits like convenience, transparency, and easier access to financial services despite the possibility of higher spending. The study came to the conclusion that in order to promote responsible financial conduct, digital payment apps should incorporate expense-tracking functions.

The distribution of transactions among several UPI applications in India was examined by Hota, Kumar, Singh, Asudeh, Dey, and Chakraborty (2025). The study looked at the problem of market concentration in the digital payment environment, where most transactions are controlled by a small number of powerful apps. In order to preserve a balanced digital payment ecosystem, the researchers suggested a computational model that aids in distributing payment traffic among several platforms. The National Payments Corporation of India's regulatory measures to restrict the market share of any one application were also covered in the report. According to the findings, a balanced transaction distribution might boost innovation, increase competition, and lessen reliance on a select group of payment providers. The authors came to the conclusion that in order to guarantee the long-term sustainability and security of the UPI ecosystem, efficient regulation and technological innovation are crucial.

The goal of Dahiphale et al. (2024) was to increase confidence and security in digital payment systems like UPI. The study suggested using machine learning and artificial intelligence models to identify unusual financial activity and fraudulent transactions. The suggested technology can detect any fraud attempts and notify financial institutions instantly by examining user behavior and transaction patterns. The study showed that cutting-edge technology may greatly boost user confidence and enhance the security of digital payment platforms. The authors stressed that a key element affecting the uptake of digital payments is

trust. Therefore, more consumers would be encouraged to adopt digital payment technologies if security infrastructure is strengthened and intelligent fraud detection systems are put in place. According to the study's findings, using AI-based security solutions will improve digital financial systems' dependability and security.

### **Research Gap**

1. Insufficient Attention to User Experience and Behavior Numerous earlier studies have mostly examined the technology aspects of digital payments and transaction growth. Fewer studies, however, look at customer behavior, satisfaction levels, and users' actual experiences. For instance, elements like:

Usage frequency of UPI

User contentment with UPI services First-time users' ease of usage

Security perception

2. Inadequate Studies on Adoption in Rural Areas

UPI is still in its infancy in rural and semi-rural areas, while being widely used in urban ones. The majority of research focuses on urban digital payment trends while frequently ignoring the difficulties encountered by rural consumers.

Rural communities may experience problems like:

Inadequate internet access Absence of smartphones Low level of digital literacy

Low knowledge about the security of digital payments

3. Insufficient Research on Difficulties and Dangers

The majority of studies emphasize the benefits of UPI, including its affordability, speed, and ease of use. However, comparatively few studies examine the hazards and issues related to UPI use.

problems such as:

Failures to make payments Network problems

Risks of fraud and scams Technical issues

4. Insufficient Research Using Primary Data

A significant amount of current research is based on secondary data, including transaction volumes, bank statistics, and government reports. The thoughts and experiences of real people are not entirely captured by this data, even though it aids in understanding general patterns.

## **OBJECTIVE**

To examine the growth of Unified Payments Interface (UPI) and its role in transforming the digital payment system in India.

To analyze the impact of UPI on consumer payment behavior, especially the shift from cash to digital transactions.

To study the role of UPI in promoting financial inclusion by enabling easy and low-cost digital payments across urban and rural areas.

To identify the benefits and challenges of UPI adoption in the Indian digital payments ecosystem.

## **Collection of Data**

### **Primary Data**

Data gathered directly from respondents for the first time is referred to as primary data.

Primary data for this study is gathered using an online survey created with Google Forms.

The primary data contains details about: Knowledge of and utilization of UPI The frequency and intent of digital transactions Consumer attitudes on digital and cash payments UPI's contribution to financial inclusion Benefits and challenges of using UPI

Since primary data is gathered directly from consumers based on their own experiences, it is regarded as trustworthy.

## **Research Method**

There were various kinds of questions on the questionnaire, including:

- Multiple-choice questions to collect general information about respondents and their UPI usage.
- To collect precise and quantifiable answers, use closed-ended questions.
- Likert scale questions are used to gauge how satisfied or in agreement people are with UPI services.

## **Sampling Method**

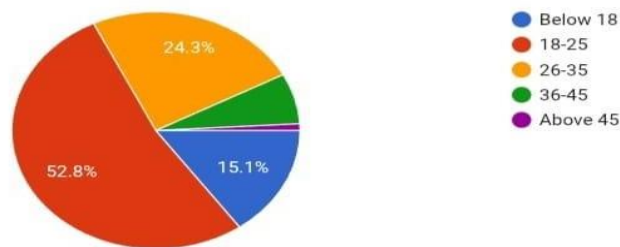
### **Convenience Sampling Method**

Convenience sampling refers to the selection of respondents based on their easy availability, accessibility, and willingness to participate in the research study. Under this method, respondents who are easily reachable and ready to provide information are selected for data collection. In this research, data was collected through an online questionnaire using Google

Forms. The survey link was distributed through online platforms such as WhatsApp, email, and social media. The respondents who received the survey link and were willing to participate voluntarily filled out the questionnaire. A total of 218 responses were collected through this method.

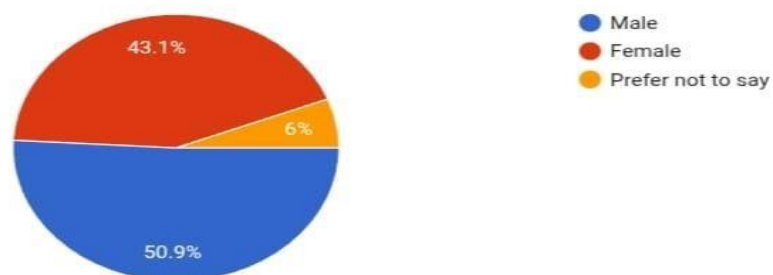
### Analysis of Data

1. Age group  
218 responses



The survey results show that the majority of respondents belong to the 18–25 age group (52.8%), indicating strong participation from young adults. This is followed by the 26–35 age group (24.3%), suggesting moderate representation of early working-age individuals. Respondents below 18 years (15.1%) also form a notable portion, while participation from the 36–45 age group is relatively low, and those above 45 years are minimal.

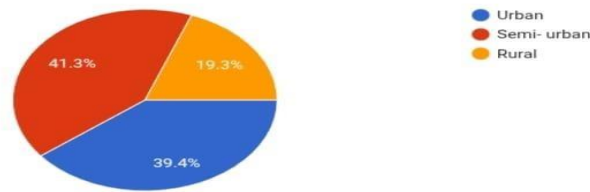
2. Gender  
218 responses



The gender distribution of respondents is fairly balanced, with male participants forming a slight majority (50.9%) and female participants closely following (43.1%). A small proportion of respondents (6%) preferred not to disclose their gender. Overall, the data indicates good gender representation, suggesting that the survey results are not heavily biased toward a single gender and reflect diverse perspectives.

### 3. Area of residence

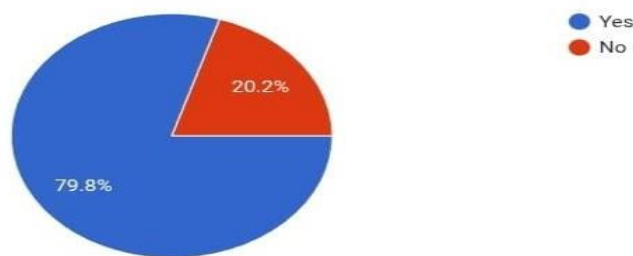
218 responses



The area-wise distribution of respondents shows a diverse residential representation. A large proportion of participants belong to semi-urban areas (41.3%), followed closely by those from urban areas (39.4%), while rural respondents account for 19.3% of the total. This indicates that the survey findings largely reflect the perspectives of urban and semi-urban populations, with comparatively lower but still significant input from rural areas. As a result, the conclusions drawn are more representative of regions with better access to infrastructure and services, while rural viewpoints may be slightly underrepresented.

### 4. Are you aware of UPI service

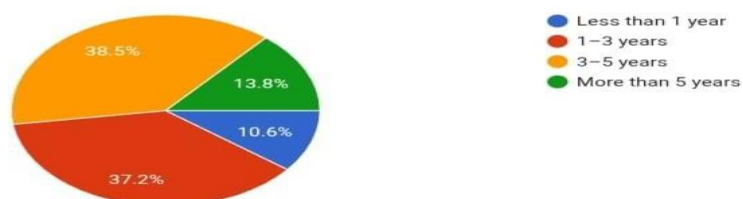
218 responses



The findings reveal a high level of awareness about UPI services, with 79.8% of respondents indicating that they are aware of UPI, while 20.2% are not aware. This demonstrates that UPI has achieved wide recognition among the population, reflecting its strong penetration in India's digital payment ecosystem.

### 5. How long have you been using UPI

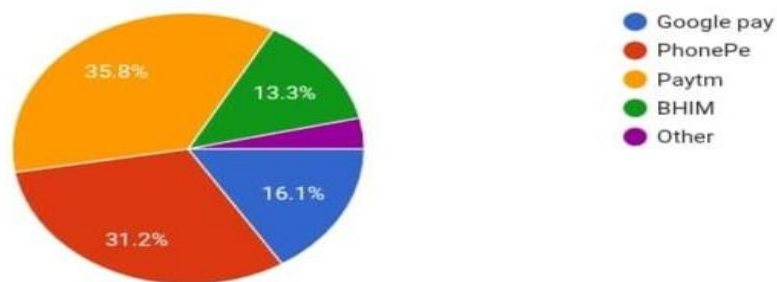
218 responses



The data indicates that most respondents have substantial experience using UPI. A large proportion have been using UPI for 3–5 years (38.5%), followed closely by those using it for 1–3 years (37.2%), reflecting sustained and consistent adoption over time. Only 10.6% of users are relatively new adopters with less than one year of usage, while 13.8% have been using UPI for more than five years.

### 6. Which UPI app do you are use most?

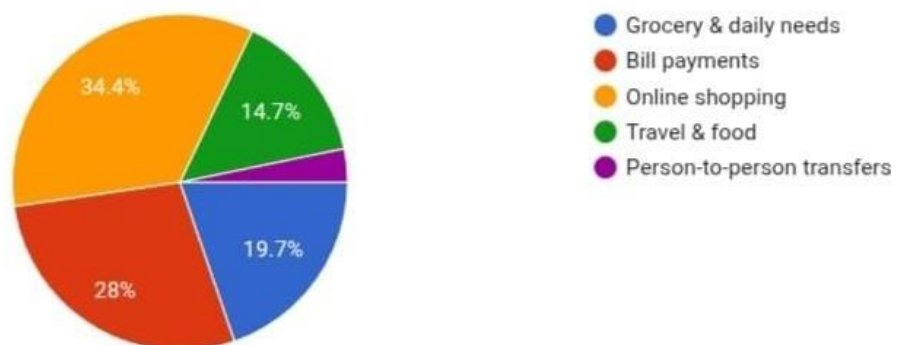
218 responses



The survey identifies Paytm as the most popular UPI app, used by 35.8% of respondents. It is followed closely by PhonePe (31.2%), making these two apps the clear favorites for over two-thirds of the group. While Google Pay and BHIM maintain a respectable presence, they trail significantly behind the market leaders, and "Other" apps remain largely irrelevant to this specific audience.

### 7. For which transaction do you mostly use UPI?

218 responses

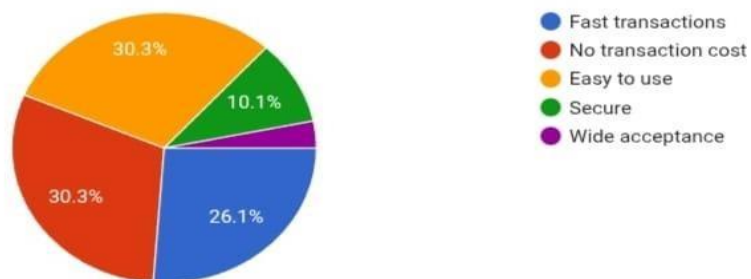


The survey proves that UPI has become a cornerstone of daily financial life, primarily driven by Online shopping (34.4%) and Bill payments (28%). This high utility has directly resulted in a significant shift away from physical currency, with 77.9% of respondents confirming a reduction in their cash usage. While 44% of users have experienced a moderate change, a

substantial 33.9% have moved toward a near-total cashless lifestyle. Ultimately, the data shows that as UPI expands into daily needs like groceries and travel, it is successfully transitioning the consumer base toward a digital-first economy.

### 8. What are the main benefit of UPI?

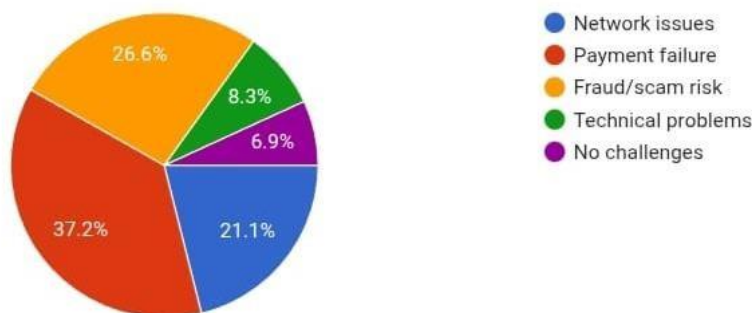
218 responses



The responses highlight that users perceive multiple strong benefits of UPI, with ease of use (30.3%) and no transaction cost (30.3%) emerging as the most significant advantages. This is followed by fast transactions (26.1%), emphasizing UPI’s efficiency and time-saving nature. A smaller proportion of respondents identify security (10.1%) as the main benefit, while wide acceptance accounts for a minimal share.

### 9. What challenges have you faced while using UPI?

218 responses



The survey results indicate that users do face notable challenges while using UPI, with payment failures (37.2%) emerging as the most common issue. This is followed by fraud or scam risks (26.6%), highlighting concerns related to security and misuse. Network issues (21.1%) also affect a significant number of users, particularly in areas with poor internet connectivity. In contrast, technical problems (8.3%) are reported by fewer respondents, and only 6.9% state that they face no challenges at all.

## **Finding**

### **1. High UPI Awareness**

The vast majority of respondents are aware of UPI services, according to the report. This shows that consumers are aware of digital payment platforms and that UPI has effectively touched a large populace. A significant factor in raising awareness has been the National Payments Corporation of India and banks' increased promotion of digital payments.

### **2. Majority of Respondents Use UPI**

The survey reveals that most respondents actively use UPI for making payments, while only a small percentage do not use it. This finding shows that UPI has become one of the most commonly used digital payment methods in India.

### **3. Long-Term UPI Adoption**

Many respondents have been using UPI for three to five years, and a sizable portion have been using it for more than a year. This demonstrates that users continue to rely on the system for routine transactions because they trust it.

### **4. Regular Use of UPI**

A large number of respondents said they used UPI every day or every week. This suggests that UPI has become a standard component of everyday financial transactions, including grocery shopping, internet shopping, mobile recharging, and money transfers.

### **5. UPI is regarded as user-friendly**

Even for new users, the majority of respondents concur that UPI is simple to use. People of all ages find UPI applications comfortable due to their straightforward UI and speedy transaction process.

## **CONCLUSION**

This study examines how the Unified Payments Interface (UPI) has affected Indian digital Payments demonstrates the important part UPI has played in changing India's payment landscape. The convenience, speed, and affordability of UPI have made it one of the most popular forms of digital payment, according to the study of primary data gathered from respondents.

The vast majority of respondents are aware of UPI services and actively utilize them to make payments, according to the survey. This illustrates how UPI has become widely used by a variety of professional groups, including students, salaried workers, independent contractors, and stay-at-home moms. The widespread use of UPI, which ranges from daily to weekly transactions, shows that it has become a crucial component of daily financial transactions in

India.

In terms of advantages, UPI is well-liked for its quick transactions, minimal or no transaction fees, simplicity of use, and security. The transition from cash-based transactions to digital payments has been greatly aided by these factors. According to the study, UPI has also contributed to financial inclusion by allowing people to use simple cellphones to make digital payments without requiring complicated banking processes.

## **SUGGESTION**

1. **Enhancement of Network Infrastructure:** One of the main problems that users encounter is network-related problems that result in unsuccessful payments. Particularly in rural and semi-urban areas, the government, banks, and service providers should make investments to improve server capacity and internet access. Transactions will go more smoothly and quickly with a reliable network infrastructure.
2. **Strengthening Security Measures:** Despite UPI's perceived security, there are still issues with fraud and frauds. Stronger authentication procedures, prompt grievance redressal systems, and real-time fraud alerts are examples of security aspects that need to be improved. Users should be frequently informed about secure digital payment methods by banks and UPI apps.
3. **Awareness and Digital Literacy Programs:** Despite high levels of awareness, some people—especially those living in rural areas—still do not fully comprehend how to use UPI. Organizing workshops, awareness campaigns, and digital literacy initiatives can help consumers become more self-assured and less afraid of online transactions.
4. **Quicker Resolution of Failed Transactions:** Unresolved payment issues and delayed refunds have a detrimental impact on user confidence. Banks and UPI platforms should make sure that unsuccessful transactions are promptly resolved and that users are informed about reimbursement timescales.
5. **Promoting Merchant Adoption:** UPI's success depends heavily on small and medium-sized businesses. More merchants, particularly in rural and local markets, may use UPI if incentives like lower compliance costs, simple onboarding procedures, and technical support are offered.

## **REFERENCES APA FORMAT**

1. Pathak, A. C., Joshi, N., and Kulkarni, V. (2024). An economic analysis of UPI app usage and security perceptions in order to comprehend the acceptance of digital payments.

- Vidya: The Gujarat University Journal.
2. URL: <https://vidyajournal.org/index.php/vidya/article/view/534>
  3. Kumar (2024). Digital payment dynamics: Examining UPI usage, adoption, and security issues in Bhagalpur, Bihar. *International Journal of Multidisciplinary Research Review*. <https://www.rjournals.com/index.php/rrijm/article/view/1498>
  4. R. Kumawat (2025). a thorough analysis of India's digital payment system. *International Journal of Science, Engineering, and Technology Research*.
  5. URL: <https://ijsrset.com/index.php/home/article/view/IJSRSET251241>
  6. Yashaswini, M., Shetty, N. K., Kumar, S., and Shashikanth (2024). Cash to digital: Mysore's microbusinesses are using UPI. *Journal of Research and Education in Informatics*. <https://jier.org/index.php/journal/article/view/1745>
  7. N. Sahun (2024). Adoption of digital payments in the Indian economy: Role of UPI in automating SMEs. *International Journal of Management and Information Technology*. <https://ignited.in/index.php/ijitm/article/view/15924>
  8. S. K. Lakshmi (2024). An analysis of consumer behavior and financial inclusion about the growth of digital payments in India. *Journal of International Education and Research*. URL: <https://ierj.in/journal/index.php/ierj/article/view/4542>
  9. V. Baradwaj (2023). A study on small merchants' adoption and usage of UPI. *The Rising Scholars Research Archive*.
  10. <https://research-archive.org/index.php/rars/preprint/view/545>
  11. Dev, H., Kumar, D., Gupta, R., and Dharmavaram, S. (2024). The impact of UPI on Indian users' spending habits: from cash to cashless. arXiv: <https://arxiv.org/abs/2401.09937>
  12. Asudeh, A., Dey, P., Hota, A., Kumar, S., Singh, D. D., and Chakraborty, A. (2025). Digital payments should be distributed fairly, with transaction flows balanced for legal compliance. arXiv: <https://arxiv.org/abs/2601.02369>
  13. Agrawal, M., Dahiphale, D., Madiraju, N., Lin, J., Karve, R., Modwal, A., & Merchant, A.
  14. (2024). An LLM-powered strategy to improve digital payment security and confidence. arXiv: <https://arxiv.org/abs/2410.19845>