

UNLOCKING THE FUTURE: EXPLORING THE SOCIETAL SHIFTS CATALYZED BY UPI IN INDIAN PAYMENTS

Dr. Ruchi Anand¹, Ms. Sakshi Rane², Ms. Anjali Waikar³

¹ Senior Assistant Professor, PTVVA's Institute of Management, Mumbai.

^{2,3} Student, PTVVA's Institute of Management, Mumbai.

Abstract

This research delves into the transformative impact of the Unified Payments Interface (UPI) in India, particularly in the context of the challenges presented by the global Covid-19 pandemic. Before UPI, conventional systems faced challenges such as lengthy procedures and delays, which UPI has effectively overcome. The study explores UPI adoption, highlighting the influence of age groups, digital literacy, and lifestyle choices on its usage. The research methodology involves primary data collection through a structured questionnaire circulated among 180 respondents in Mumbai, evaluating the effectiveness and ease of UPI use across age groups. Findings reveal a widespread acceptance of UPI, positively impacting spending habits, influencing businesses to adopt innovative payment systems, and enhancing overall security perceptions of digital payments. Suggestions for further enhancement include educational initiatives for user awareness, user-friendly interface development, strengthening security measures, collaborative efforts for financial inclusion, and adapting to diverse consumer preferences. The study concludes by emphasizing UPI's pivotal role in steering India towards a digital era, marking a departure from traditional norms and reflecting the nation's dynamic adaptation to technological advancements.

Keywords: UPI Apps, Digital Payment Security, Covid-19, Cashless Economy, Digital Currency.

I. Introduction:

India, renowned for its rich cultural and traditional practices, resists change easily, UPI system changes the whole traditional practices in just a few years. But the National Payments Corporation of India's creation of the Unified Payments Interface (UPI) has drastically changed the country's customs. In line with programmes like "Digital India" and "Jan Dhan Yojana," which support technology uptake and digital literacy, this invention is guiding India towards a cashless society.

Prior to UPI, traditional payment systems relied heavily on actual currency and suffered from lengthy procedures and delays. These transactions have been transformed by UPI, which enables users to send and receive money easily, continuously, and without the need for complicated bank information. Digital financial services are now available even in the most distant areas, removing obstacles to financial inclusion.

UPI is now the most used digital payment option in India, having handled over 590 billion transactions worth around 39.4 trillion INR in 2022 alone since its launch in 2016. The reason for its success is because UPI's streamlined merchant payments, effective fund routing, and integration of several bank accounts into a single mobile application.

II. Literature Review:

Suma Vally and Hema Divya (2018) acknowledges the unrealized potential and notable development of e-payment systems in India. Innovation, incentives, customer convenience, and regulatory frameworks are all strengthening elements. For technology developers and

investors, user acceptability of technology interfaces is important. The goals of the study include determining how income, education, and age affect people's use of digital payments. The research approach uses structured questionnaires and statistical analyses to collect data from Hyderabad. The results show that while income has a minimal impact on the adoption of digital payments, age and education have a significant impact. The study highlights the affirmative outcomes of embracing digital payments within India's banking sector, emphasizing the role of technology awareness campaigns and security protocols.

Jayaram Narayana (2021) aimed to investigate the UPI concept, evaluating its significance, researching its expansion in reaction to the epidemic, and comprehending the difficulties UPI apps encounter. The phenomenal development in the digital payment industry is highlighted by the astonishing growth of UPI apps in India after 2020, their contribution to digitization, the rise of fintech businesses and startups, and the monthly recording of two billion transactions. UPI applications improve economic transparency, supporting the nation's legitimacy and luring investments. Although UPI is increasingly being used in a variety of business sectors, the payment system must make sure that the appropriate infrastructure. The goals of the study include determining how income, education, and age affect people's use of digital payments. Employing structured questionnaires and statistical analysis, the research methodology draws data from Hyderabad. Findings reveal that age and education exert a noteworthy impact on digital payment adoption, whereas income's influence remains limited.

Dr. Budheshwar Prasad and Yogita Satish Garwal (2018) evaluated India's endeavor of cashless transactions as a substantial endeavor to move towards a cashless economy and lessen reliance on actual money. This study aims to evaluate India's current adoption of digital currencies in comparison to industrialized nations and to identify the corresponding potential and obstacles. The research collects information on the use of digital currencies from different nations through secondary data collecting and graphical analysis. The findings of the study demonstrate how adopting a cashless economy is consistent with India's goals for economic development and progress. The study reveals both the drawbacks and possible advantages of a cashless economy through promoting electronic payment methods, supporting digital financial infrastructures, and encouraging digital transaction behaviors.

Nancy Goel and Vikas Nath (2020) study explored the sustainability of digital payment systems. The surge in technological advancement has opened unprecedented doors for developing nations, while simultaneously shaking the foundations of conventional financial institution payment methods. Despite this shift, there's a noticeable scarcity of empirical exploration into the sustainability of digital payment systems. In response, scholars have constructed a research model to address this gap. Their discoveries underscore the pivotal role of factors such as reputation, security, and structural reliability in shaping users' trust and ongoing commitment to digital payment systems. These findings hold significant weight, advocating for the alignment of policy makers and financial institutions. As technology continues to reshape economies, this study provides a compelling rationale for the integration and bolstering of digital payment mechanisms within the nation's financial practices.

III. Overview of UPI:

The National Payments Corporation of India (NPCI) was established through collaboration between the Reserve Bank of India (RBI) and the Indian Banks' Association (IBA). Their goal was to integrate various technologies and create a standardized system for business operations, with a primary emphasis on retail payments. The NPCI aimed to develop a user-friendly payment system that would benefit all parties, particularly those who might not have previously had access to banking services.

As a result, in 2016 the Unified Payments Interface (UPI) was established. In India, UPI is a lightning-fast method for managing digital transactions. In actuality, UPI is used in more than

60% of digital transactions in the nation. It's significant because it facilitates money management for those who don't need actual cash.

It is anticipated that UPI will have handled more than 9 billion transactions by 2023. Not only does UPI facilitate money transfers, but it also allows for "Peer to Peer" collection requests. This implies that you can conveniently plan and pay for items according to your needs.

Every bank offers a unique UPI application for various phone platforms, including Windows, iOS, and Android. Making payments without cash used to be a little tedious and time-consuming before UPI. Now that UPI has made it much faster and easier, everyone who wishes to move their transactions online can do so with greater ease.

IV. Research Methodology:

The research mainly consists of Primary data and the data is collected through a structured questionnaire with questions designed on a scale of 1 to 5. The questionnaire is circulated amongst 190 respondents circulated through google forms in the Mumbai region. Few of the respondents' questionnaires were not valid so the final 180 respondents questionnaire was considered for the study. The questions were framed to understand the effectiveness and ease of using UPI by various age group individuals from age 20 yrs. to above 40 yrs.

V. Findings and Results:

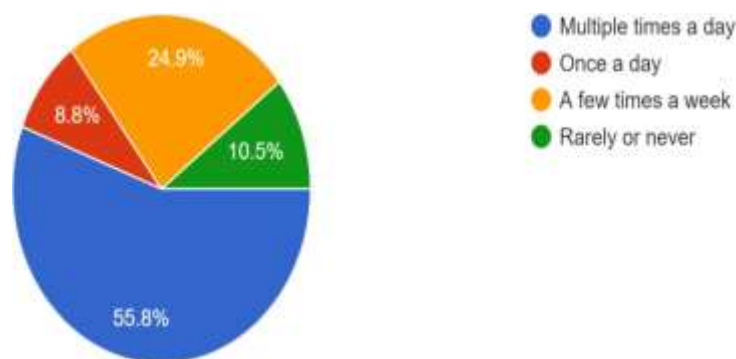


Figure 1 illustrates people usage of UPI for their financial transactions.

In the depicted graph, the predominant segment demonstrates a frequent utilization of UPI. This noteworthy recurrence underscores the integration of UPI into their routine financial practices, underscoring its allure and practicality. Moreover, it suggests that a substantial segment of the population relies on UPI for regular transactions, emphasizing its reliability and user-friendliness. Despite a comparatively lower frequency compared to other categories, this group still exhibits a notable utilization rate, affirming that UPI remains a dependable choice even for less frequent transactions. The groups characterized by infrequent or non-utilization may stem from various factors, including a preference for traditional methods, limited familiarity with digital payment systems, or concerns related to privacy and security.

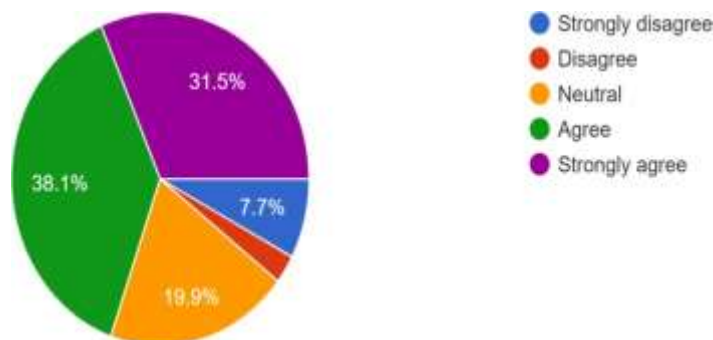


Figure 2 illustrates the availability of UPI affects people's decisions to use digital payment methods rather than cash.

The examination reveals that a significant majority of participants expressed a robust inclination toward and a high level of trust in digital payments, underscoring the practicality and alignment of such methods with contemporary requirements. While the swiftness and traceability inherent in digital processes offer clear advantages, the presence of a neutral stance among some individuals underscores the imperative to consider a spectrum of preferences within the payment system. This underscores the importance of striking a balance between addressing traditional preferences and embracing evolving technologies.

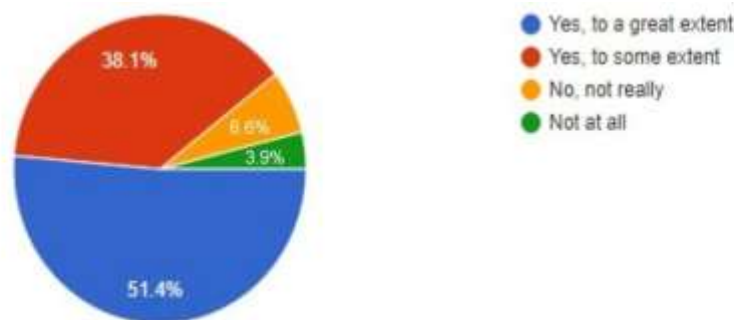


Figure 3 illustrates the use of UPI has caused users to carry less cash.

The data indicates a distinct inclination towards reduced reliance on physical currency for everyday transactions. The widespread acceptance of digital payments by the majority underscores their appreciation for convenience. However, varying degrees of acceptance highlight the necessity for an inclusive transition strategy that respects diverse preferences. This recognition underscores the importance of progressively accommodating various comfort levels, fostering a comprehensive shift towards digital transactions.

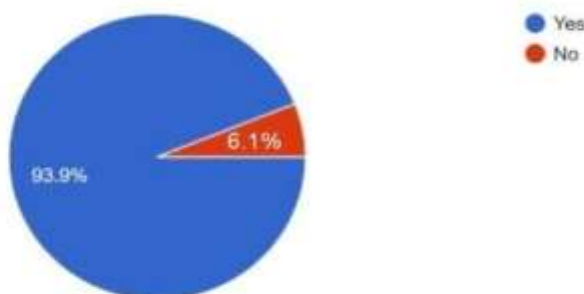


Figure 4 illustrates UPI improved the ease of paying for goods and services online.

Based on the depicted data, it is evident that over 93.9% of consumers perceive paying for online goods and services as more convenient, with the remaining 6.1% expressing a contrary view. The growing acceptance of online payments is primarily attributed to the ease, accessibility, security, and incentives provided by service providers. Nevertheless, a portion of individuals may not embrace these methods due to challenges in trust, limited digital literacy, or personal preferences.

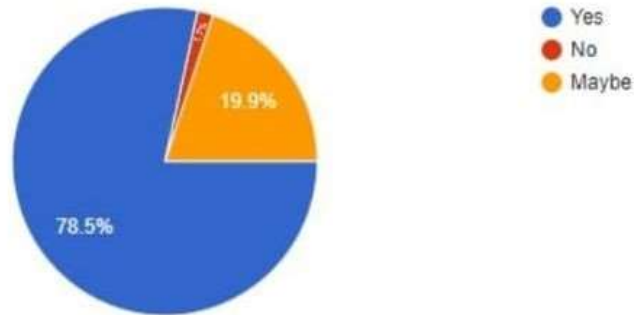


Figure 5 illustrates whether or not UPI is user-friendly.

Examining the graph above, it becomes evident that consumers find UPI Apps more user-friendly than those who express concerns about UPI's usability. A significant 78.6% of respondents prefer UPI as their payment method due to its perceived ease of use. Nonetheless, 19.8% of respondents indicate that UPI is not as user-friendly for them.

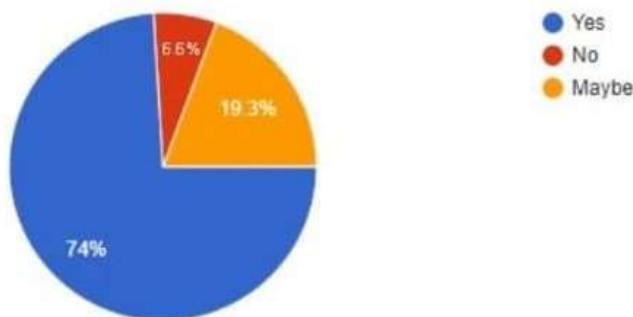


Figure 6 illustrates those who depended on UPI transactions post covid.

As illustrated in the graph above, there has been a 73.06% increase in the number of individuals relying on UPI transactions compared to the period before the COVID outbreak. It's crucial to acknowledge that the reception of UPI transactions varies among respondents, with 19.8% expressing uncertainty about fully depending on UPI.



Figure 7 illustrates consumer behavior changed overall after the advent of UPI.

The implementation of UPI has brought about substantial changes in how individuals in India manage their expenditures. A noteworthy 59.9% of consumers have noted an uptick in their spending since the introduction of UPI. However, for 29.14% of respondents, their financial circumstances and the presence of UPI have had minimal impact on their spending behavior, leading to the observation that their spending habits have essentially remained unchanged.

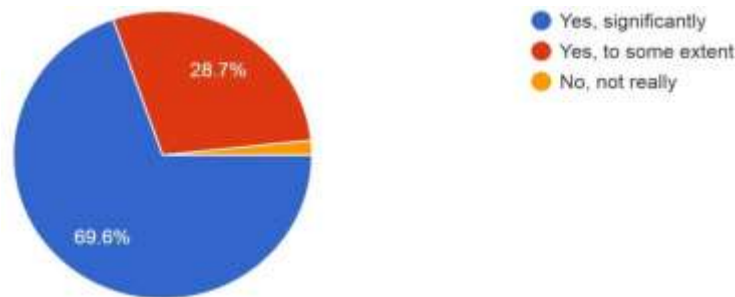


Figure 8 illustrates UPI has helped India transition to a digital economy.

The substantial role played by UPI in propelling India toward a more digital economy is evident in most respondents recognizing its significance, as depicted in the above figure. This transformation not only positively impacts individuals but also holds far-reaching implications for the nation's financial stability and economic advancement. UPI has, indeed, played a pivotal role in initiating India's digital revolution.



Figure 9 shows UPI helped to encourage businesses to use more advanced and efficient payment systems.

A remarkable 98.03% of respondents expressed that UPI exerted a positive influence, encouraging businesses to adopt more innovative and efficient payment methods. The minority of respondents who disagreed may suggest companies that have not extensively explored the benefits of UPI or are facing unique circumstances hindering widespread adoption. It's essential to underscore that UPI has played a substantial role in modernizing India's payment processes.

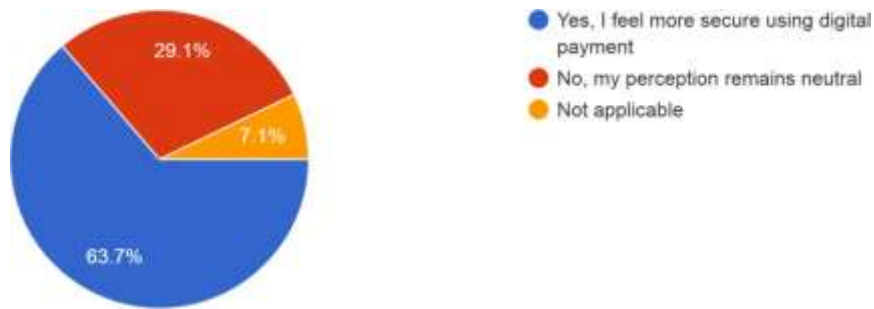


Figure 10 illustrates how UPI apps affect consumers' opinions about the overall security of digital payments.

The positive impact of UPI on enhancing trust in digital financial transactions is underscored by a substantial 63.7% of respondents indicating an increased sense of security in using digital payments. Despite these encouraging developments, it's essential to note that 29.1% of respondents maintain a neutral stance on their opinion of digital payment security. This group may harbor reservations about adopting new technology, encounter issues not fully addressed by UPI apps, or a combination of both factors. Those who either refrain from using digital payments or have limited experience with UPI apps may constitute the 7.01% who provided a "not applicable" response, reflecting the difficulty in evaluating the impact on their perception of security.

Based on the Findings the Results are as Follow:

- Majority demonstrates frequent UPI use, highlighting its integration into routine financial practices.
- Positive perception of digital payments among respondents, emphasizing user trust and convenience.
- Acceptance of digital payments for convenience, with a need for an inclusive transition strategy.
- Over 93% find online payments convenient, with the remainder citing trust, digital literacy, or personal preferences.
- 78.09% prefer UPI for its perceived user-friendliness, while 18.09% express uncertainty about complete reliance.
- UPI's impact on spending habits: 60% reported an increase, 29.04% experienced minimal change.

VI. Suggestion:

1. Educational Initiatives for User Awareness: Enhancing the awareness of users through educational initiatives is crucial to alleviate concerns and promote confidence in adopting digital payment methods. Comprehensive campaigns, including workshops and informational sessions, can be organized to inform users about the benefits, safety measures, and ease of digital transactions.

2. User-Friendly Interfaces: The development of user-friendly interfaces is imperative to cater to users of varying ages and digital literacy levels. Designing intuitive and straightforward interfaces for digital payment applications ensures a smoother and more accessible experience, encouraging both the older generation and younger users to embrace digital transactions.

3. Strengthening Security Measures: Bolstering security measures is essential to build and sustain trust in digital payment systems. Implementing advanced security protocols, regularly updating systems to address emerging threats, and transparently communicating these measures to users can significantly enhance the overall security perception.

4. Collaborative Efforts for Financial Inclusion: Collaborative efforts between financial

institutions, government bodies, and educational institutions are pivotal. Joint initiatives can facilitate widespread adoption and understanding of digital payment systems, contributing to a more inclusive and digitally empowered society.

5. Adapting to Diverse Consumer Preferences: Recognizing and accommodating diverse consumer preferences is key to a successful transition. Tailoring digital payment solutions to align with various comfort levels and preferences ensures that the shift towards digital transactions is gradual, inclusive, and widely accepted.

These suggestions aim to address key aspects such as education, usability, security, collaboration, and inclusivity, fostering a conducive environment for the continued growth and acceptance of digital payment methods, particularly UPI, in India.

VII. Conclusion:

In this comprehensive study, the researcher has meticulously examined the evolving impact of the Unified Payments Interface (UPI) in recent years, subjecting its transformative influence on rigorous analysis. The formidable challenges posed by the global Covid-19 pandemic have played a pivotal role in shaping consumer perceptions, substantially influencing trust and loyalty toward UPI. The study delves into the nuanced evolution of UPI as a payment method within the Indian context, unravelling its journey from inception to becoming a cornerstone of the nation's digital financial landscape. As the research unfolds, it becomes evident that the unprecedented circumstances of the pandemic have not only tested the resilience of UPI but have also prompted users to reevaluate their approach, emphasizing the need for enhanced security measures.

Highlighting UPI as a catalyst for quick and secure trade, the study suggests that users, cognizant of its transformative potential, may be inspired to adopt necessary precautions. This marks a significant departure from traditional payment practices as Indians increasingly embrace the convenience and efficiency offered by UPI. In essence, the research underscores the pivotal role played by UPI in steering India away from conventional norms toward a digital era, reflecting the nation's dynamic adaptation to technological advancements.

Bibliography:

1. Singhraul, B., & Garwal, Y. *Challenges and Opportunities in India*. (2018). Volume 10(issue 9). http://www.pbr.co.in/2018/2018_month/March/6.pdf
2. Sharma, G. (2016). *Study of internet banking scenario in India*. *International Of Emerging Research In Management And Technology*, Volume5(issue 5), <https://silو.tips/download/study-of-internet-banking-scenario-in-india-dr-geeta-sharma-reader-iips-devi-ahi>
3. Khosla, S. (2017), *India is far away from being a cashless economy*, <https://www.hindustantimes.com/analysis/india-is-far-away-from-being-a-cashless-economy-here-s-why/story-ybFui5M53JPFyD1MGvHigJ.html>
4. Young, J. (2017). *Moving Toward a Cashless Society: Norway's Two Largest Banks Abandon Cash*. <https://crypto.news/moving-toward-a-cashless-society-norways-two-largest-banks-abandon-cash/>
5. Suresh Chandra, D. (2015). *The Electronic Banking Revolution in India*. *The Journal of Internet Banking and Commerce*, Volume 20(Issue 2). <http://dx.doi.org/10.4172/1204-5357.1000110>
6. Jun, M. & Cai, S. (2001). *The key determinants of Internet banking service quality: a content analysis*. Volume 19(Issue7), <http://dx.doi.org/10.1108/02652320110409825>
7. Zandi, M., Koropecjy, S., Singh, V., & Matsiras, P. (2016). *The impact of electronic payments on economic growth* <https://usa.visa.com/content/dam/VCOM/download/visa-everywhere/global-impact/impact-of-electronic-payments-on-economic-growth.pdf>

8. Thomas, H., Jain, A., & Angus, M. (2013). *MasterCard Advisors ' Cashless Journey: The Global Journey From Cash to Cashless*, https://www.mastercard.com/news/media/gipfggv5/cashless-journey_whitepaper_final.pdf
9. Zhou, T. (2011). *An empirical examination of initial trust in mobile banking*. *Internet Research*, Volume 21(Issue 5). <https://www.emerald.com/insight/content/doi/10.1108/10662241111176353/full/html>
10. Pramod B, Shadaab K (2020). *Mobile Payment Market: Global Opportunity Analysis and Industry Forecast, 2020–2027* <https://www.alliedmarketresearch.com/mobile-payments-market>
11. K.Suma vally, Dr. K.Hema Divya (2018) *A study on Digital payments in India with perspective of consumers adoption*, Volume 118 No. 24 2018 <https://www.acadpubl.eu/hub/2018-118-24/2/378.pdf>
12. Dave, Raju (2016), *Here are the advantages of cashless payments and the pitfalls you should beware of* <https://economictimes.indiatimes.com/wealth/spend/going-cashless-is-it-good-for-you/articleshow/55908649.cms>
13. Premchand A. and A. Choudhry (2015), *Future of Payments ePayments Volume 13(Issue 12)*, <https://www.ijetae.com/>
14. Jayaram Narayanan (2021) *a study on growth of upi apps in india after covid outbreak* Volume 8(Issue 9) <https://www.jetir.org/papers/JETIR2109243.pdf>
15. Smriti Jain (2023), *UPI & RuPay: What's the next milestone for India's digital payments revolution?* <https://timesofindia.indiatimes.com/business/india-business/upi-rupay-whats-the-next-milestone-for-indias-digital-payments-revolution-watch-video/articleshow/102556630.cms?from=mdr>
16. *National Payments Corporation of India (NPCI)* , [https://www.npci.org.in/Unified-Payments-Interface \[UPI\]](https://www.npci.org.in/Unified-Payments-Interface-[UPI]), <http://cashlessindia.gov.in/upi.html>