

A Comprehensive Study of UPI and Modern Digital Financial Transactions

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ABSTRACT

Our project researches into the world of digital finance, focusing on the Unified Payments Interface (UPI) and modern financial transactions. As technology advances, traditional financial methods are evolving, making way for innovative platforms like UPI. Our study aims to thoroughly understand UPI and its implications for today's financial landscape. Through careful research, we explore the fundamental workings of UPI, its structure, and its role in facilitating smooth transactions between individuals and groups. We also investigate the security measures embedded within UPI to ensure the safety of user data and transactions. Moreover, our project researches into the broader realm of digital financial transactions, encompassing various digital payment platforms. We analyze the advantages and challenges posed by these platforms and their impact on financial accessibility and inclusion. By blending theoretical knowledge with practical examples, our study provides valuable insights into UPI and modern digital transactions. It aims to contribute to a better understanding of how these technologies are shaping the future of financial services and driving economic progress.

1.1 INTRODUCTION

In today's fast-paced world, where smartphones have become an essential tool for communication and daily tasks, digital financial transactions have gained widespread acceptance and usage. The convenience and efficiency offered by digital payment methods have transformed the way we handle our finances. The digitalization of financial transactions in India is a narrative plaited with threads of technological innovation, government initiatives, and changing consumer behaviours. Before probing into the emergence of the Unified Payments Interface (UPI), it is essential to understand the backdrop against which this transformation occurred. The early 2000s witnessed the advent of online banking and card-based transactions in India, laying the foundation for a gradual shift towards digital payments. However, these methods were often plagued by interoperability issues, high transaction costs, and limited accessibility, primarily catering to urban populations and privileged segments of society. Meanwhile, cash remained the dominant mode of transaction for a majority of Indians, owing to factors such as convenience, familiarity, and the widespread commonness of informal economies. The turning point in India's journey towards digital finance came with the government's ambitious push for financial inclusion and digital empowerment. Initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY), launched in 2014, aimed to provide every household with access to a bank account, thereby bringing millions of unbanked individuals into the formal financial system. Simultaneously, the demonetization drive in 2016, although controversial, served as a catalyst for accelerating the adoption of digital payments by incentivizing cashless transactions and promoting electronic modes of payment. Amidst these developments, the National Payments Corporation of India (NPCI) introduced the Unified Payments Interface (UPI) in April 2016, signalling a new era in digital finance. UPI was envisioned as a game-changer, offering a seamless, instant, and interoperable payment infrastructure that transcended the limitations of traditional banking channels. Unlike previous payment systems, which required users to disclose sensitive bank account details or use cumbersome authentication methods, UPI leveraged a unique virtual payment address (VPA) linked to the user's bank account, ensuring enhanced security and privacy. At its core, UPI operates on a peer-to-peer (P2P) payment model, enabling users to transfer funds directly from one bank account to another in real-time, 24/7, using just a smartphone and an internet connection. The introduction of UPI marked a paradigm shift in the digital payments landscape, offering highest convenience, accessibility, and cost-effectiveness to users across diverse socioeconomic backgrounds. Before UPI, digital transactions in India were often fragmented, with users having to navigate through multiple platforms and interfaces to complete a single payment. Additionally, traditional methods such as NEFT (National Electronic Funds Transfer) and RTGS (Real-Time Gross Settlement) were characterized by longer processing times and fixed transaction windows, making them less suitable for real-time, on-the-go payments. In contrast, UPI prioritized simplicity, interoperability, and instantaneity, revolutionizing the way Indians transact and interact with their money. In this context, our project seeks to untie the details of UPI and its impact on modern digital financial transactions, tracing its evolution from conception to widespread adoption. By examining the factors that advanced the rise of UPI, analyzing its underlying principles, and assessing its implications for financial presence and revolution, we aim to provide a comprehensive understanding of this transformative payment system and its significance in India's digital journey.

Unified Payments Interface (UPI):

The Unified Payments Interface (UPI) stands as a flagship initiative of the Indian government's digital payment ecosystem. It serves as a real-time payment system that facilitates instant money transfers between bank accounts through mobile devices. UPI has gained immense popularity due to its simplicity, convenience, and interoperability across various banking platforms and payment service providers. Users can link their bank accounts to a UPI-enabled mobile application and seamlessly transfer funds to individuals, merchants, or utility service providers with just a few taps on their smartphones. Additionally, UPI supports a wide range of transactions, including peer-to-peer transfers, bill payments, online shopping, and more. Its adoption has not only reduced the reliance on cash but has also catalysed financial inclusion by providing access to digital financial services to millions of people across the country.

Modern Digital Financial Transactions:

Beyond UPI, modern digital financial transactions encompass a wide array of payment methods and platforms that leverage technology to facilitate seamless and secure transactions. Some of the key components of modern digital financial transactions include:

1. Online Banking (Early 2000s): Online banking services provided by banks enabled customers to perform various financial transactions over the internet, including fund transfers, bill payments, and account management.
2. Card Payments (Early 2000s): The adoption of debit and credit cards facilitated cashless transactions at point-of-sale (POS) terminals and online merchants, contributing to the digitization of payments in India.
3. Mobile Wallets (Mid-2000s): Mobile wallet applications allowed users to store funds digitally and make payments for goods and services using their mobile phones, providing a convenient alternative to traditional banking channels.
4. Immediate Payment Service (IMPS) (2010): IMPS enabled real-time interbank fund transfers through mobile phones and internet banking, facilitating instant payments 24/7, including weekends and holidays.
5. Aadhaar Enabled Payment System (AEPS) (2013): AEPS utilized biometric authentication through Aadhaar to enable financial transactions such as cash withdrawal and balance inquiry through micro-ATMs in rural areas.
6. Immediate Payment Service 2.0 (IMPS 2.0) (2013): IMPS 2.0 introduced enhanced features such as bulk payments, merchant payments, and request-to-pay services to cater to evolving business and consumer needs.
7. Contactless Payments (Late 2010s): Contactless payment technologies, including Near Field Communication (NFC) and QR codes, enabled users to make payments by tapping or scanning their smartphones or cards at POS terminals, offering a faster and more convenient payment experience.
8. P2P Lending Platforms (2010s): P2P lending platforms emerged as alternative financing options, connecting borrowers with individual investors through online platforms, bypassing traditional financial intermediaries like banks.
9. Unified Payment Interface (2016): UPI revolutionized digital payments with its interoperable, instant, and secure payment infrastructure, enabling users to transfer funds directly from one bank account to another in real-time using a virtual payment address (VPA).
10. Cryptocurrency and Blockchain Technology (2020): Cryptocurrency, such as Bitcoin, and blockchain technology gained traction in India, offering decentralized digital currencies and secure, transparent transaction records, albeit with regulatory uncertainties and challenges.

By studying these modern digital financial transactions, we can gain insights into the user preferences and adoption rates, security and risks, user experience and satisfaction they present for individuals, businesses, regulators, and society as a whole. Through this project, we aim to shed light on the transformative power of technology in shaping the future of finance and economy.

1.2 STATEMENT OF THE PROBLEM

The rapid proliferation of digital financial transactions, particularly through platforms like the Unified Payments Interface (UPI), presents both opportunities and challenges. Despite the increasing adoption of digital payment systems in India, there remains a need to assess the efficacy, security, and inclusivity of these platforms. Understanding the dynamics of UPI and other digital payment solutions is crucial for policymakers, financial institutions, and consumers to address issues related to cybersecurity, financial literacy, and equitable access. Therefore, this study seeks to

comprehensively analyze the impact of UPI and modern digital financial transactions on financial inclusion, security, and economic growth in India.

1.3 SIGNIFICANCE OF THE STUDY

This study holds significance in understanding the impact of UPI and digital financial transactions on India's economy, financial presence, and security. It provides insights for policymakers, financial institutions, and businesses to enhance strategies, foster innovation, and promote equitable access to financial services. By addressing key challenges and leveraging opportunities in digital finance, this research contributes to sustainable development and empowerment in the digital era.

1.4 OBJECTIVES OF THE STUDY

1. To understand the user preferences of digital transactions.
2. To measure the adoption rate of digital transactions.
3. To assess transaction security of UPI and digital transactions .
4. To examine user satisfaction with digital transaction methods.

1.5 RESEARCH METHODOLOGY

To study the objectives of our study the following methodology is opted :

1. Customer survey on their preferences, adoption rate, security factors and user satisfaction using a questionnaire for measuring overall satisfaction of using digital transactions. The data would be collected from 156 respondents.
2. Secondary data for the study are collected from various websites with the help of journal articles and research papers.

1.6 CHAPTERIZATION SCHEME

This study contains 5 chapters :

1. CHAPTER 1 - INTRODUCTION
2. CHAPTER 2 - LITERATURE REVIEW
3. CHAPTER 3 - THEORETICAL FRAMEWORK
4. CHAPTER 4 - DATA ANALYSIS AND INTERPRETATION
5. CHAPTER 5 - FINDINGS, SUGGESTION AND CONCLUSION

1.7 LIMITATIONS OF THE STUDY

- 1) Samples are drawn within Ernakulam City
- 2) User knowledge of UPI and digital transactions differ with respect to age categories

1. **"Review on Unified Payment Interface Advancement Towards Digitalization and Challenges Faced, authored by Shubham Boke & Omkar Harkare"**, examines UPI's impact on digital payment systems and identifies barriers to its adoption. The study highlights a discrepancy in perceptions of UPI complexity and highlights the need for enhanced digital literacy and infrastructure improvements to overcome adoption challenges.
2. **"Security in Electronic Transaction," authored by Smita Kakade and Jyoti Kharade (2022)**, highlights the Importance of security in digital payments and provides guidance on secure transaction practices. The study highlights risks associated with public WiFi networks and offers tips to enhance security during electronic transactions, emphasizing the need for robust security measures in digital payment systems.
3. **"Critical Study of Unified Payment Interface (UPI): E-Payment Mode of Digital Revolution," authored by Dr. Yogesh Chandra Vishnoi and Kapil Bishla (2022)**, evaluates the advantages and limitations of UPI while highlighting its transformative impact on India's payment landscape. Despite its success in facilitating quick transactions and market growth, the study emphasizes the need to address challenges like transaction limits and security concerns to sustain UPI's growth effectively.
4. **"A Study on Customer Satisfaction of Using UPI Apps & Transactions & Payments" by Putta Sai Kumar (2022)**, assesses customer satisfaction with UPI apps, revealing widespread usage among respondents, particularly students, with PhonePe being a popular choice. However, common issues like pending transactions highlight the need for improvements in fund transfer services to enhance overall satisfaction. The study underscores UPI's role in modernizing India's payment landscape while emphasizing the importance of addressing challenges such as payment delays and security concerns to ensure a seamless user experience.
5. **"Digital Payment Adoption: Review of Literature" by Fredella Colline et al. (2022)**, systematically reviews factors influencing digital payment adoption, highlighting security concerns as a significant factor despite the benefits. Through the PRISMA method and NVIVO 12 Plus analysis, the study highlights the need to address security issues alongside technological advancements to promote broader adoption of digital payments, offering valuable insights for enhancing adoption strategies.
6. **"Review Study on the Security of Electronic Payment Systems," authored by Tamara Adel AL-Maaitah et al. (2015)**, explores the security aspects of electronic payment systems, emphasizing authentication, authorization, privacy, and encryption. Through graphic representation and questionnaire-based data collection, the study aims to improve customer perceptions of the security of electronic finance transactions, highlighting the importance of depicting safety, security, and associated risks in the digital realm. Additionally, it investigates user preferences for authentication methods to ensure secure electronic transactions.
7. **"A Study on Usage of Online Payment Apps by Customers," conducted by Sanjai and Dr. Tr. Kalai Lakshmi Keelkatalai (2021)**, investigates customer perceptions regarding online payment apps, highlighting usage patterns and satisfaction levels. Findings indicate major usage among young, unmarried males, with Google Pay being the preferred app for mobile bill payments. While respondents appreciate the convenience of online payment apps, concerns over network issues and security persist, suggesting both acceptance and areas for improvement in the digital payment landscape.
8. **"A Study on Consumer Preference of Unified Payment Interface (UPI) With Reference to Chennai City," authored by N. Bharath (2023)**, explores into consumer preferences regarding UPI usage, highlighting user awareness and satisfaction levels. Employing a questionnaire-based approach and Chi-square tests for analysis, the study finds widespread UPI usage in Chennai City, with notable challenges including bank errors during transactions. Despite the popularity of UPI for its convenience and security, certain demographics, such as the elderly, exhibit slower

adoption rates, suggesting a need for targeted awareness campaigns and infrastructure improvements to enhance overall adoption and trust in digital payment systems.

9. "A Study on Factors Influencing the Adoption and Usage of Unified Payment Interface (UPI) Among iGen in Mumbai," conducted by **Mr. Milind A. Bhuvra (2023)**, explores the determinants of UPI adoption and usage among Mumbai's younger generation. Through demographic analysis and regression techniques, the study reveals widespread daily usage of UPI among iGen respondents, with perceived usefulness and ease of use being significant factors influencing adoption. While trust was not found to be a major factor, addressing security concerns remains crucial to promoting further UPI adoption. Policymakers and marketers can utilize these insights to develop strategies aimed at encouraging UPI uptake among Mumbai's iGen population.

10. "A Study on Users' Opinion Towards Unified Payment Interface (UPI) Transactions," conducted by **Sankararaman Ganapathyraman, S. Suresh, and T.C. Thomas (2023)**, investigates users' perspectives on UPI transactions, considering demographics like age, income, and education. With 119 respondents, the study utilizes descriptive and analytical methods, including graphical and frequency table analysis, to suggest a need for enhanced cybersecurity measures and public awareness campaigns to promote UPI adoption. Despite its popularity, some users still prefer ATMs, highlighting the importance of addressing user preferences and concerns to ensure broader acceptance of UPI.

11. "Digital Payments in India: Consumer Adoption" authored by **Suma Vally and Hema Divya (2018)** explores post-demonetization growth in digital payments, citing government initiatives like Digital India. The study, based on 183 respondents in Hyderabad, emphasizes the positive impact of digital payment adoption on the banking sector and the economy. It underscores the need for enhanced awareness and security measures to facilitate broader acceptance and utilization of digital payment technologies.

12. "UPI – A New Technique of Digital Payment" (2016) by **Dr. Kratika Neema & Dr. Arpit Neema** explores the impact of demonetization on digital payment adoption, focusing on the Unified Payment Interface (UPI). The study discusses UPI's architecture, benefits, and challenges, highlighting its role in enabling mobile-based transactions with low costs and instant settlement. It emphasizes the importance of customer confidence and awareness, with initiatives by banks and the government to promote UPI usage for achieving the goals of Digital India.

13. "A Study on Satisfaction of Digital Payment Users with Special Reference to UPI Transactions" (2023) by **Riya Goswami, Shreya Goswami, and Dr. Pushpkant Shakdwipee** investigates user satisfaction with UPI transactions in Jaipur city, focusing on factors contributing to satisfaction. The study highlights UPI's role in revolutionizing India's payments industry, with 80% of participants expressing favourable views on satisfaction metrics. Ease of use and quick transaction processing are identified as key contributors to satisfaction, with bill payments and online services being primary purposes for UPI usage. Compared to other payment systems, UPI stands out for its instant transactions, security features, and potential for financial inclusion in the digital economy.

14. "Unified Payment Interface – Impact of UPI in Customer Satisfaction" (2019) by **Bijin Philip** evaluates customer preferences and satisfaction with the UPI system in India. The study highlights UPI's role as a cost-effective and modernized innovation contributing to India's digitization efforts. Utilizing Mean, F-Test, ANOVA, and Regression analysis, the research reveals a positive perception of UPI among customers, with educated individuals showing higher usage rates. The study underscores the influence of smartphone and internet penetration in driving UPI adoption, indicating a positive attitude towards digital payment services.

15. "Digital Payment System with Reference to Financial Transactions in India: An Empirical Analysis" (2019) by **Dr. Harshal Anil Salunkhe, Dr. Punamkumar Hinge, and Pankaj Nandurkar** investigates the impact of digital payment systems on banking transactions in India. The study highlights the rapid growth of digital payments, facilitated

by the government's initiatives and technological advancements. Utilizing secondary data and survey methods, the authors explore people's opinions and satisfaction with digital payments, emphasizing factors like ease of use, cost-effectiveness, and safety. The study concludes that digital payment systems, including UPI, have revolutionized financial transactions in India, offering convenience and security, and are driving significant growth in online transactions.

16. "A Study on Customer Adoption of Digital Payment Specific to UPI Mode" (2019) by Qing Pan examines the adoption and perception of mobile payment experiences, focusing on the impact of independent variables like income, education, and internet access. Conducted in Kattankulathur, Chennai, with data from 60 respondents, the study utilizes SPSS 20 for analysis. Findings reveal positive relationships between income, education, internet access, and customer adoption and satisfaction. Age is found to have minimal impact, while education and income significantly influence adoption. T-test and ANOVA analyses support these conclusions, emphasizing the importance of education and income in shaping digital payment adoption behaviour.

17. "An Overview on Digital Payments" (2017) by A. Martina Franciska & Dr. S. Sahayaselvi discusses the impact of Information Technology (IT) on digital payments, particularly in the context of India's transition towards digital transactions during the Demonetization period. The study highlights the role of smartphones and internet access in driving the acceptance of digital payments in the Indian market. Based on secondary data, the study indicates a significant increase in digital payments, with mobile banking transactions reaching 4018 billion in 2015-2016 compared to 60 billion in 2012-13. The study predicts further growth in digital payments, driven by the expanding reach of mobile networks, internet, and electricity, especially in remote areas.

18. "Perceptions of Post Graduate Students towards UPI Transactions - A Study" (2022) by Kanchu Thirupathi and Ravi Akula explores the adoption and perceptions of UPI among postgraduate students at Satavahana University, Karimnagar, Telangana State. UPI's significance lies in its integration of multiple banking services into a single mobile application, driven by the RBI's and government's efforts to promote low-cost, secure digital payments. Findings reveal that most PG students use UPI for mobile recharge and fund transfers, considering it a part of their daily routine despite some issues. The study suggests ongoing monitoring by the RBI and government to address user concerns, anticipating a significant increase in UPI transactions in the future.

19. "Consumer Perception towards Digital Payment Mode with Special Reference to Digital Wallets" (2019) by Dr. K. Kamatchi Eswaran explores consumer perceptions regarding digital payments, focusing on digital wallets. The study highlights the significant growth of digital payments post-demonetization, with digital wallet companies showing a 271% increase in value by February. Government and private sector initiatives, such as Aadhaar Payment, UPI, and BHIM apps, have contributed to this growth and facilitated behavioral changes in digital payment adoption, particularly in rural areas. Findings indicate that education level significantly influences digital payment adoption, with higher education levels associated with greater inclination towards digital payments. Additionally, regions with higher education levels exhibit higher acceptance of digital payments.

20. "Impact of Digital Payment Adoption on Small Businesses in India: A Comprehensive Survey" (2023) by Nandini Sujit Phatak explores the effects of digital payment systems on small businesses in Pune City, Maharashtra. Through a survey of 300 businesses, the study reveals positive impacts on sales volume, transaction costs, and customer satisfaction, while highlighting challenges like technical issues and security concerns. The research underscores variations in adoption rates across sectors and emphasizes the need for tailored strategies to promote digital payment adoption. The findings suggest that integrating digital payments can enhance operational efficiency, increase sales, and improve customer satisfaction, making it a strategic tool for business growth.

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3.1 Unified Payments Interface (UPI): Revolutionizing Modern Digital Transactions

The concept of transactions, integral to economic activities, has undergone a profound evolution throughout human history. From the primitive Barter System, where goods and services were directly exchanged for one another, to the introduction of physical currency as a standardized medium of exchange, the means by which individuals and societies conduct transactions have continuously evolved. In the context of India, this journey has been marked by significant milestones, each reflecting advancements in technology, regulatory reforms, and changing societal norms. This transition gained momentum with India's economic liberalization in the 1990s, which laid the groundwork for a gradual shift towards digital transactions. The emergence of the Unified Payments Interface (UPI) in 2016 marked a pivotal moment in this evolution, offering a unified platform that revolutionized the way Indians transact in the digital age. This extended theoretical framework explores the historical trajectory, emergence, and theoretical implications of India's transition from physical to digital transactions, with a specific focus on the transformative role of UPI. In the context of India's economic history, the transition from physical to digital transactions represents a paradigm shift driven by technological advancements, regulatory reforms, and changing consumer behaviour. This extended theoretical framework delves deeper into the historical evolution, emergence of the Unified Payments Interface (UPI), and the theoretical implications of this transition. India's economic liberalization in the 1990s marked the beginning of a gradual shift towards digital transactions, as the government introduced electronic fund transfers and online banking systems. However, these early initiatives were limited in scope and accessibility, primarily serving urban populations and established businesses. The widespread adoption of mobile phones and the internet in the early 2000s laid the foundation for further digitization of financial services. Initiatives such as the National Electronic Funds Transfer (NEFT) and Real-Time Gross Settlement (RTGS) systems facilitated electronic transactions but were constrained by their complexity and limited interoperability. The emergence of UPI in April 2016 marked a significant milestone in India's digital payments journey. Developed by the National Payments Corporation of India (NPCI), UPI addressed the shortcomings of existing payment systems by offering a unified, real-time payment interface that transcended geographical and institutional barriers. With features such as virtual payment addresses (VPAs) and interoperability across banks and payment service providers, UPI democratized access to digital financial services, empowering individuals and businesses across diverse socio-economic strata. The theoretical framework underlying India's transition to digital transactions is multifaceted, drawing on concepts from technological determinism, diffusion of innovation, and institutional theory. Technological determinism suggests that advancements in technology drive societal change, as seen in the widespread adoption of UPI and other digital payment solutions. The diffusion of innovation theory helps elucidate the adoption process, highlighting the role of factors such as relative advantage, compatibility, and observability in driving adoption rates among different user segments. Additionally, institutional theory sheds light on the regulatory and institutional factors shaping the digital payments landscape. Regulatory reforms, such as the demonetization drive in 2016 and the subsequent push for digital payments, have played a pivotal role in accelerating the adoption of UPI and other digital payment solutions. Moreover, the emergence of non-banking players such as fintech startups and mobile wallets has contributed to the diversification of digital payment options, fostering competition and innovation in the sector. At its inception, UPI was greeted with cautious optimism, but its adoption soon surpassed expectations, fuelled by a combination of government support, technological innovation, and consumer demand. Within two years of its launch, UPI transactions surpassed 100 million transactions per month, marking a 75% increase from its initial adoption rate. The simplicity of UPI, with its unique Virtual Payment Address (VPA) and real-time processing capabilities, resonated with users from diverse backgrounds, driving widespread acceptance and adoption. As a result, UPI emerged as the preferred mode of payment for millions of Indians, transcending geographical and socio-economic barriers. The historical significance of UPI extends beyond its technological prowess. It has become a symbol of India's aspirations for financial inclusion and digital empowerment. By providing a level playing field for individuals and businesses alike, UPI has empowered millions of Indians to participate in the digital economy, unlocking new opportunities for growth and prosperity. Moreover, UPI's success

has inspired similar initiatives in other countries, positioning India as a global leader in digital payments innovation. In conclusion, the evolution of UPI and digital transactions in India represents a remarkable chapter in the country's economic history. From its humble beginnings to its widespread adoption, UPI has transformed the way Indians transact, ushering in a new era of financial inclusion and digital empowerment. As India continues its journey towards becoming a cashless economy, the lessons learned from the UPI revolution will continue to shape the future of digital payments on both a national and global scale.

Unified Payments Interface (UPI) is a real-time payment system developed by the National Payments Corporation of India (NPCI). Launched in April 2016, UPI has transformed the way people in India transact, offering a seamless, instant, and secure platform for transferring funds between bank accounts using smartphones. At its core, UPI operates on a peer-to-peer (P2P) model, enabling users to send and receive money directly from their bank accounts without the need to share sensitive information like bank account numbers or IFSC codes. Each user is assigned a unique virtual payment address (VPA), which serves as a proxy for their bank account. This VPA is linked to the user's bank account and facilitates transactions.

Instantaneous Transactions: UPI transactions occur in real-time, allowing for immediate transfer of funds between parties.

24/7 Availability: UPI operates round the clock, even on holidays and weekends, ensuring convenience for users.

Interoperability: UPI is interoperable across different banks and payment service providers, enabling seamless transactions between accounts.

Security: UPI incorporates robust security measures such as two-factor authentication (2FA), PIN authentication, and encryption to safeguard user data and transactions.

Multi-bank Linkage: Users can link multiple bank accounts to a single UPI ID, offering flexibility and convenience in managing finances.

While UPI has witnessed remarkable success, there are several areas where enhancements can further elevate its efficiency and user experience:

Enhanced Scalability: As UPI continues to gain popularity, ensuring scalability to handle the growing volume of transactions is crucial.

Improved User Interface: Simplifying the user interface and enhancing usability can make UPI more accessible to individuals with varying levels of digital literacy.

Transaction Limits: Revisiting transaction limits and offering options for higher-value transactions can cater to the needs of businesses and high-net-worth individuals.

International Integration: Exploring possibilities for international integration can extend the benefits of UPI to cross-border transactions, facilitating global commerce.

Transactions in UPI and its Parties: **Peer-to-Peer (P2P) Payments:** Individuals can transfer funds directly to friends, family, or acquaintances using their UPI IDs.

Peer-to-Merchant (P2M) Payments: UPI enables seamless payments at offline and online merchants by scanning QR codes or entering merchant UPI IDs.

Bill Payments and Recharges: Users can pay bills, recharge mobile phones, and make utility payments conveniently through UPI-enabled apps.

In-app Payments: Many mobile apps integrate UPI for in-app purchases and transactions, offering a seamless checkout experience to users.

Dependent Variable	Independent Variables	Indicators
User Satisfaction in using Digital Transactions and UPI	Preference	<ul style="list-style-type: none"> - Demographic factors such as age, gender, income & education - Compatibility with existing financial habits & practices - Perceived ease of use & user-friendliness - Social influence and peer pressure
	Adoption Rate	<ul style="list-style-type: none"> - Awareness & understanding of digital payment systems - Government policies & regulations - Incentives & promotions for using digital payments - Technological innovations & advancements - Marketing and promotional activities
	Security	<ul style="list-style-type: none"> - Perceived risk & security concerns - Trust in the digital payment system - User awareness and education about security risks & best practices - Incidence of fraud and security breaches
	Satisfaction	<ul style="list-style-type: none"> - Perceived ease of use and user-friendliness - Perceived usefulness and benefits - Trust in the digital payment system - Quality of customer service and support - Speed and efficiency of transactions - User experience and interface design - Incidence of technical issues and downtime

The key parties involved in UPI transactions are - Payer: The individual initiating the transaction by sending funds from their bank account.

Payee: The recipient of the funds who receives the payment in their bank account.

Banks: The banks involved in facilitating the transfer of funds between payer and payee accounts.

Payment Service Providers (PSPs): Entities such as mobile wallets, payment apps, and financial institutions that provide UPI-based services to users.

NPCI: The governing body responsible for managing and overseeing the UPI infrastructure, ensuring its smooth operation and security.

3.2 Operational Framework

1. The Statements for Preference and Adoption Rate were taken from (Adeyinka Tella, 2015) and (Phatak, 2023).
2. The Statements for Digital Transaction Security were taken from (Vikas Gupta, 2021).
3. The Statements for Customer Satisfaction were taken from (Ayush Tyagi, 2023).

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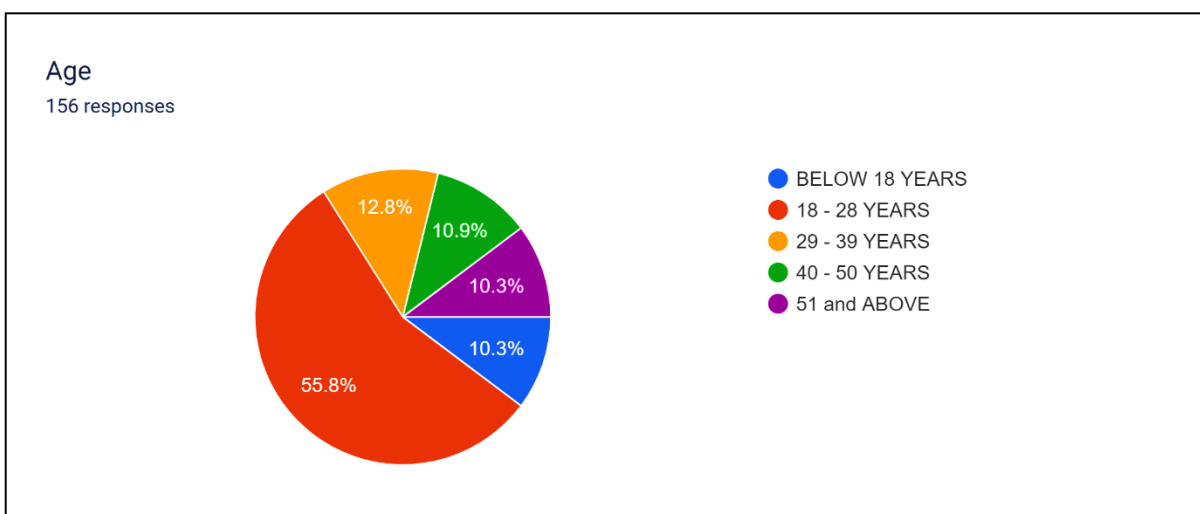
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DEMOGRAPHIC AND RESPONDENTS PROFILE

Table 1 : Age of Respondents

Age	Below 18 Years	18 - 28 Years	29 - 39 Years	40 - 50 Years	51 And Above	Total
Count	16	87	20	17	16	156

Figure 1 : Age



Source : Survey Data

INTERPRETATION

From the above table and chart, the majority of respondents belong to the age category of 18 - 28 Years which is 55.8%. The next major group among the respondents belongs to the age group of 29 - 39 Years which is 12.8%.

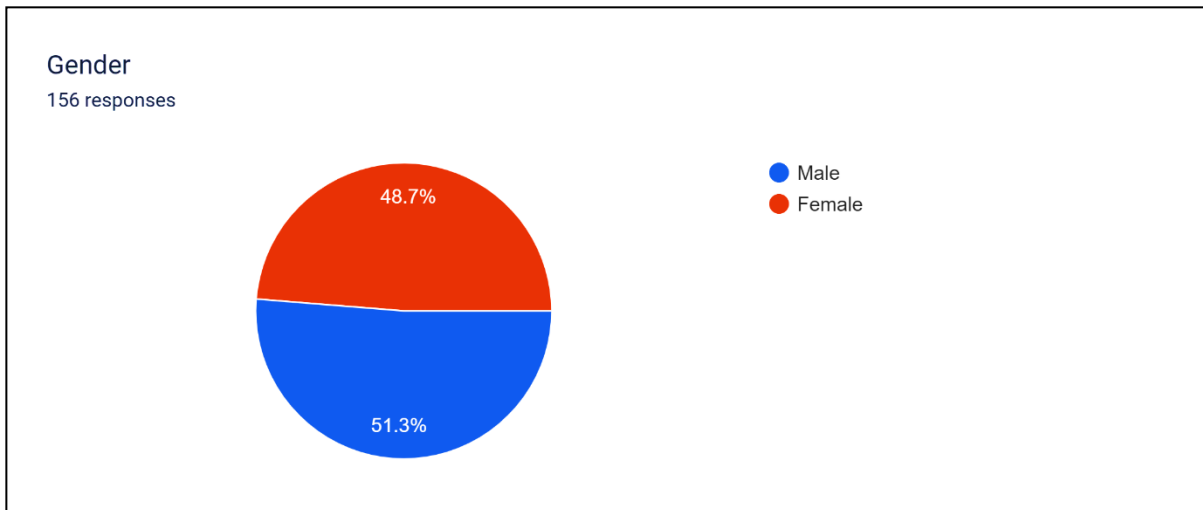


Table 2 : Gender of Respondents

Gender	Male	Female	Total
Count	80	76	156

Figure 2 : Gender

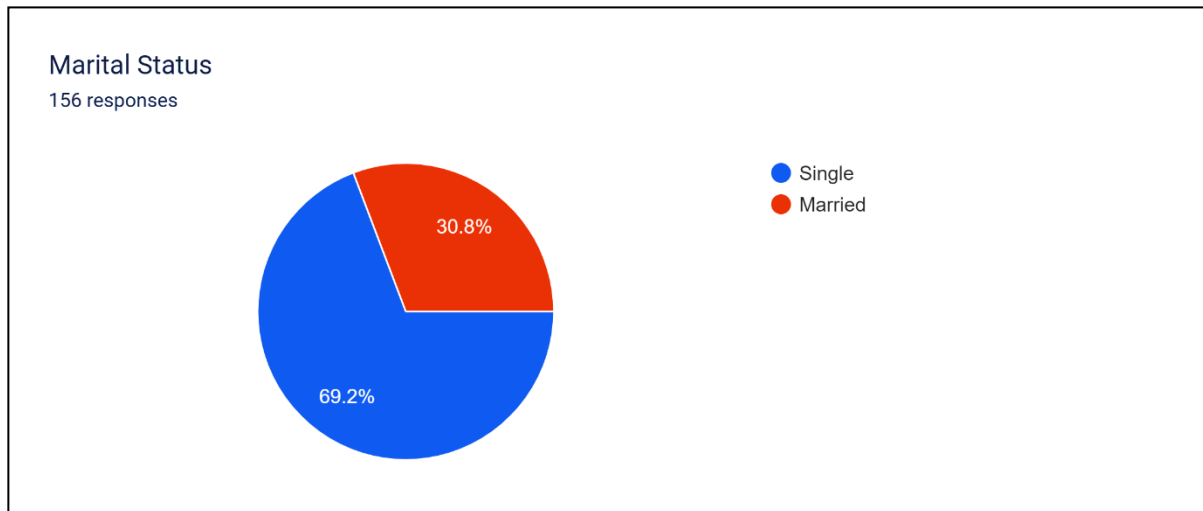
Source : Survey Data

INTERPRETATION

From the above table and chart, majority of Respondents are male which is 51.3%.

Table 3 : Marital status of Respondents		
Marital Status	Single	Married
Count	108	48

Figure 3 : Marital Status



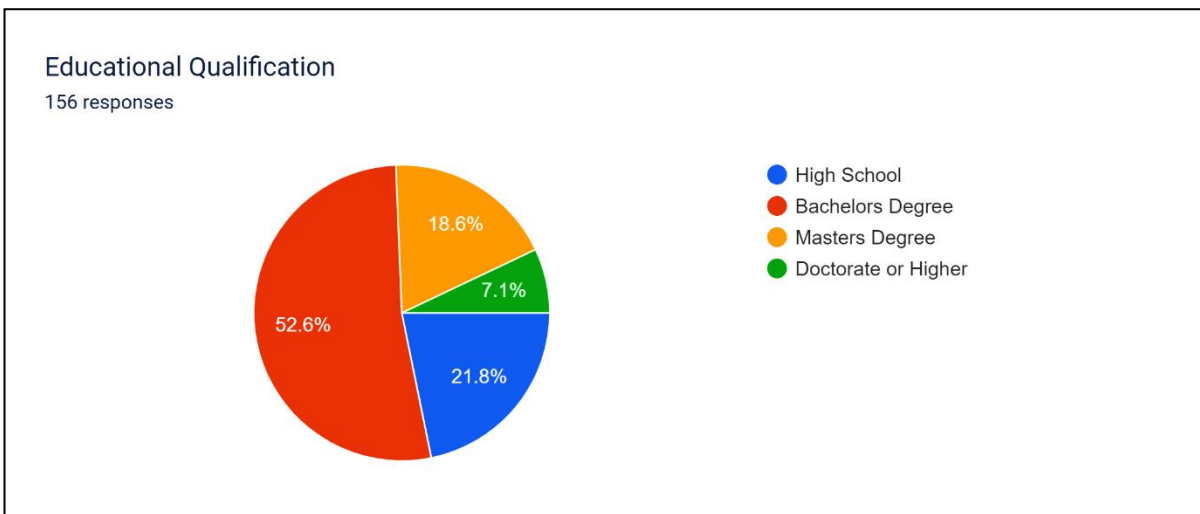
Source : Survey Data

INTERPRETATION

From the above table and chart, it can be analysed that majority of respondents are single which is of 69.2% while only 30.8% among these respondents are married.

Table 4 : Educational Qualification of Respondents					
Educational Qualification	High School	Bachelor's Degree	Master's Degree	Doctorate Higher	Or
Count	34	82	29	11	

Figure 4 : Education Qualification



Source : Survey Data

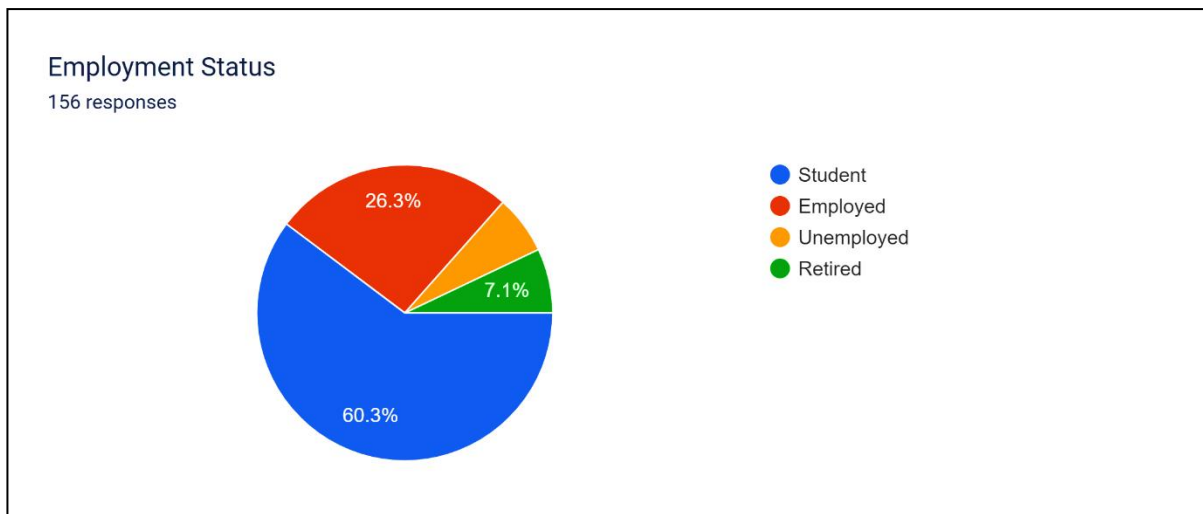
INTERPRETATION

From the above table and chart, more than half of the respondents have their highest Educational Qualification as Bachelors Degree which is of 52.6% and secondly comes the Respondents belonging to have their highest Educational Qualification as High School which is of 21.8%.

Table 5 : Employment Status of Respondents

Employment Status	Student	Employed	Unemployed	Retired
Count	94	41	10	11

Figure 5 : Employment Status



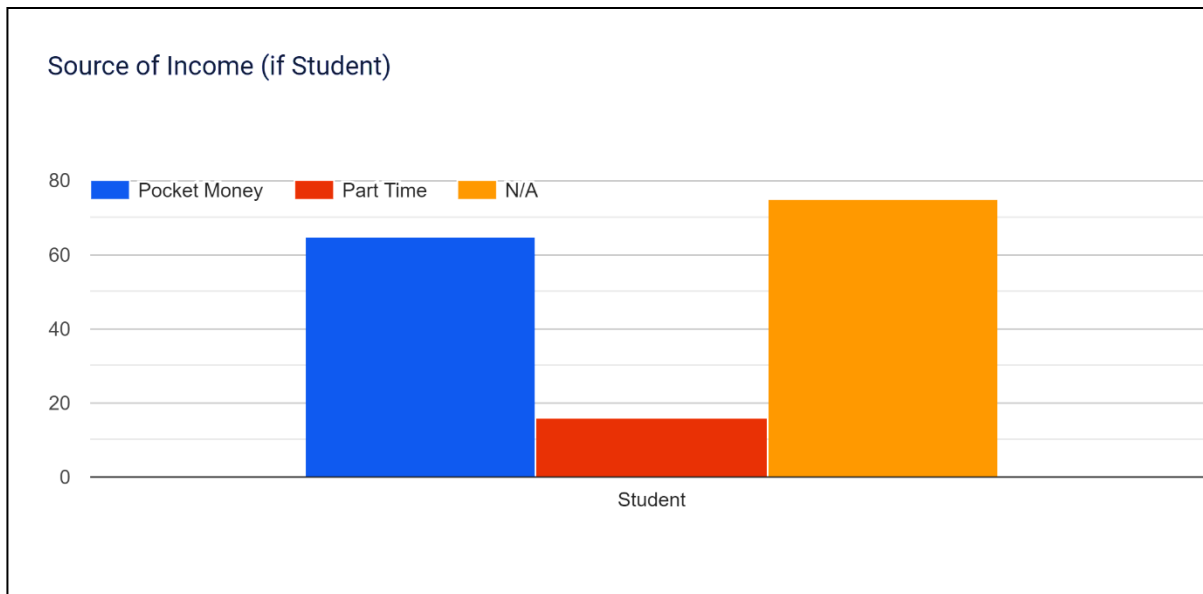
Source : Survey Data

INTERPRETATION

From the above table and chart, it can be analysed that majority of respondents are Students which is of 60.3% and the least among the respondents are the Unemployed which is of 6.3%.

Table 6 : Source of Income of Respondents			
Source Of Income	Pocket Money	Part Time	N/A
Count	65	16	75

Figure 6 : Source of Income (If Any)



Source : Survey Data

INTERPRETATION

From the above table and graph, it can be analysed that the source of income for majority of the students is from pocket money while only few students make money out of part time job.

Table 7 : Monthly Income of Respondents					
Monthly Income	Up To ₹5000	₹5000 - ₹10,000	₹10,000 - ₹15,000	₹15000 - ₹20000	Above ₹20000
Count	68	16	9	13	50

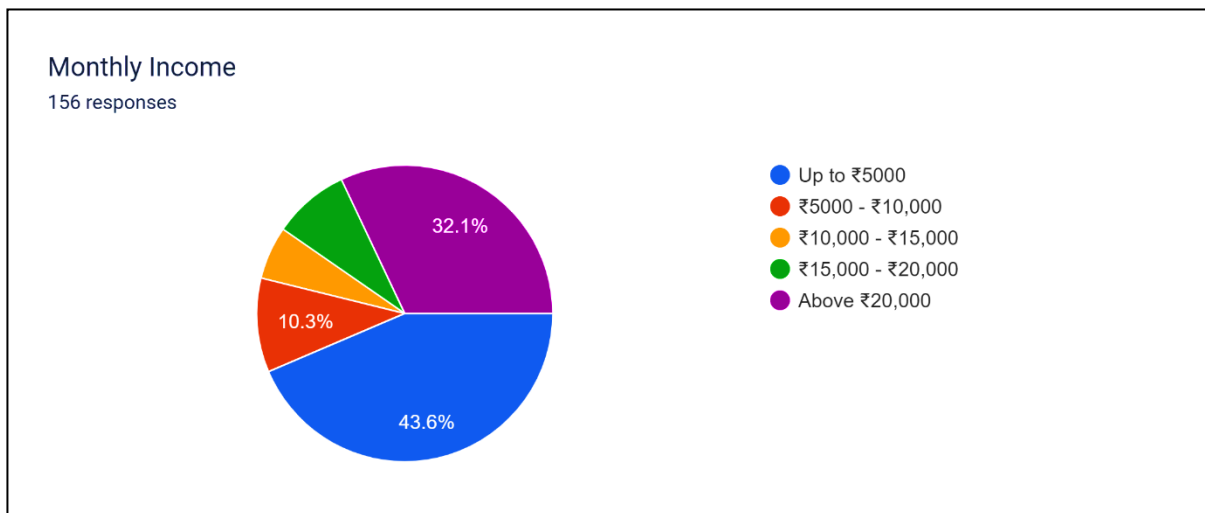


Figure 7 : Monthly Income

Source : Survey Data

INTERPRETATION

From the above table and chart, the highest monthly income earned by most of the respondents is up to ₹5000. While, at the same time the other majority of the respondents are earning above ₹20,000.

Table 8 : Nature of Work (if any) of Respondents

Nature Of Your Work (If Any)	Full Time	Part Time	N/A
Count	30	23	103

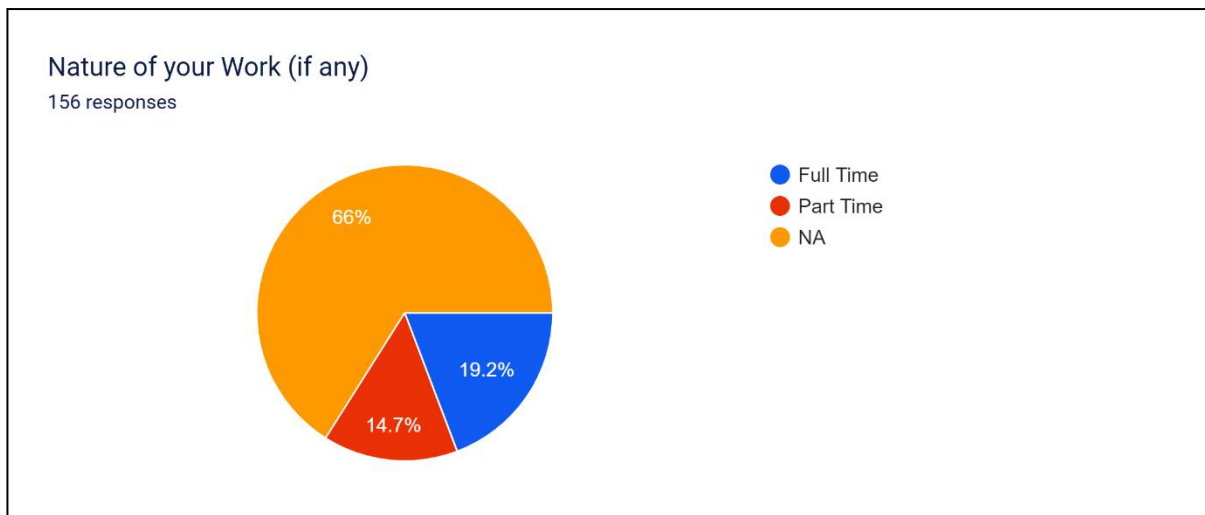


Figure 8 : Nature of Work (if any)

Source : Survey Data

INTERPRETATION

From the above table and chart, it can be understood that majority of respondents who participated in this survey are neither working full time or part time which is of 66%.

Table 9 : Consumer Awareness about UPI and Modern Digital Transactions

Awareness Of UPI & Digital Transactions	Yes	No	Not Sure
Count	137	7	12

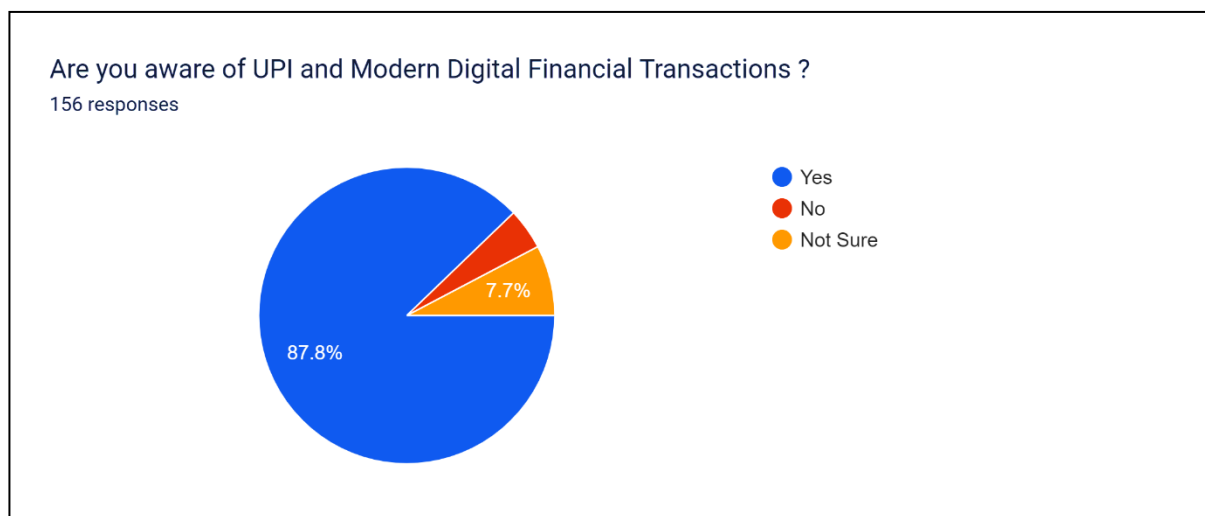


Figure 9 : Consumer Awareness of UPI and Digital Transactions

Source : Survey Data

INTERPRETATION

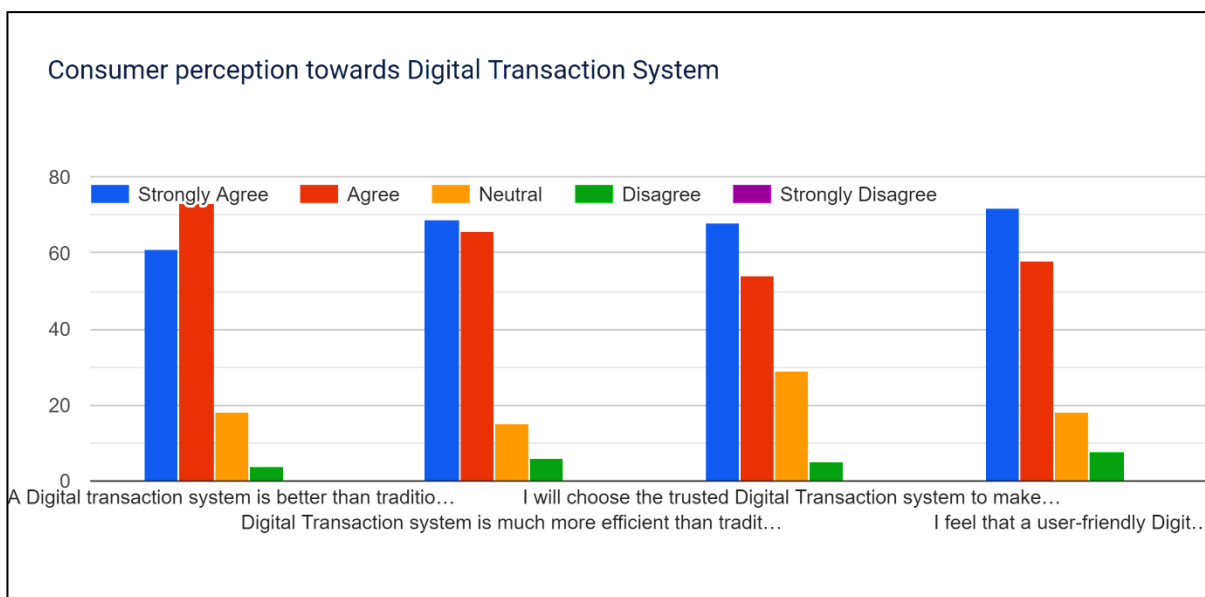
From the above table and chart, about 87.8% out of total respondents are aware about UPI and Modern Digital Transactions while only 4.5% and 7.7% respondents are not aware or unsure about knowing the UPI and Modern Digital Transactions.

CUSTOMER PREFERENCES, ADOPTION RATE OF UPI & DIGITAL TRANSACTIONS

Table 10 : Customer Preference of UPI & Digital Transactions (Adeyinka Tella, 2015)

PARTICULARS	SA	A	N	D	SD
1. A Digital Transaction System Is Better Than Traditional Transaction Methods	61	73	18	4	0
2. Digital Transaction System Is Much More Efficient Than Traditional Transaction Channels	69	66	15	6	0
3. I Will Choose The Trusted Digital Transaction System To Make Transaction	68	54	29	5	0
4. I Feel That A User-Friendly Digital Transaction System Will Influence Me To Adopt The System	72	58	18	8	0

Figure 10 : Customer Preference of UPI and Digital Transaction



Source : Survey Data

INTERPRETATION

From the above table and graph, it can be analysed that 73 respondents Agree that Digital Transaction System is better than Traditional Transaction Method. 69 respondents Strongly Agree that Digital Transaction System is more Efficient than Traditional Transactions Channels. 68 respondents Strongly Agree that they will choose a Trusted Digital Transaction System to make their Transactions. 72 respondents Strongly Agree that a User-Friendly Digital Transaction System will Influence them to Adopt the System.

CHI SQUARE TEST

To conduct the Chi-square test for independence between "Educational Qualification" and "Customer Preference & Adoption Rate," we need to follow these steps:

1. Calculate the observed frequencies for each combination of categories.
2. Calculate the expected frequencies under the assumption that there is no association between the two variables.
3. Use these frequencies to compute the Chi-square statistic.
4. Compare the computed Chi-square statistic to the critical value from the Chi-square distribution with appropriate degrees of freedom.
5. Make a decision about the null hypothesis based on the comparison.

Step 1: Calculate Observed Frequencies

Table 11 : Calculation of Observed Frequencies					
Educational Qualification	Strongly Agree	Agree	Neutral	Disagree	Total
High School	7	12	5	1	25
Bachelor's Degree	21	53	8	0	82
Master's Degree	10	17	2	0	29
Doctorate or Higher	4	6	1	0	11
Total	42	88	16	1	147

Step 2: Calculate Expected Frequencies

The expected frequency for each cell is calculated as:

Expected Frequency = (row total \times column total) / grand total

Table 12 : Calculation of Expected Frequencies					
Educational Qualification	Strongly Agree	Agree	Neutral	Disagree	Total
High School	5.82	12.33	2.24	0.14	20.53
Bachelor's Degree	20.08	42.38	7.72	0.48	70.67
Master's Degree	8.80	18.56	3.38	0.21	31.96
Doctorate or Higher	3.17	6.73	1.22	0.08	11.20
Total	37.87	80.00	14.56	0.91	134.36

Step 3: Compute the Chi-square Statistic

$$\chi^2 = \sum (O - E)^2 / E$$

Where:

- is the observed frequency
- E is the expected frequency

$$\chi^2 = (12-12.33)^2 / 12.33 + (5-2.24)^2 / 2.24 + \dots + (1-0.91)^2 / 0.91$$

$$\chi^2 = 2.96 + 1.53 + \dots + 0.01$$

$$\chi^2 = \underline{6.81}$$

Step 4: Compare with Critical Value

Using a significance level of $\alpha = 0.05$ and degrees of freedom $df = 9$, the critical value from the Chi-square distribution table is approximately 16.92.

Step 5: Make a Decision

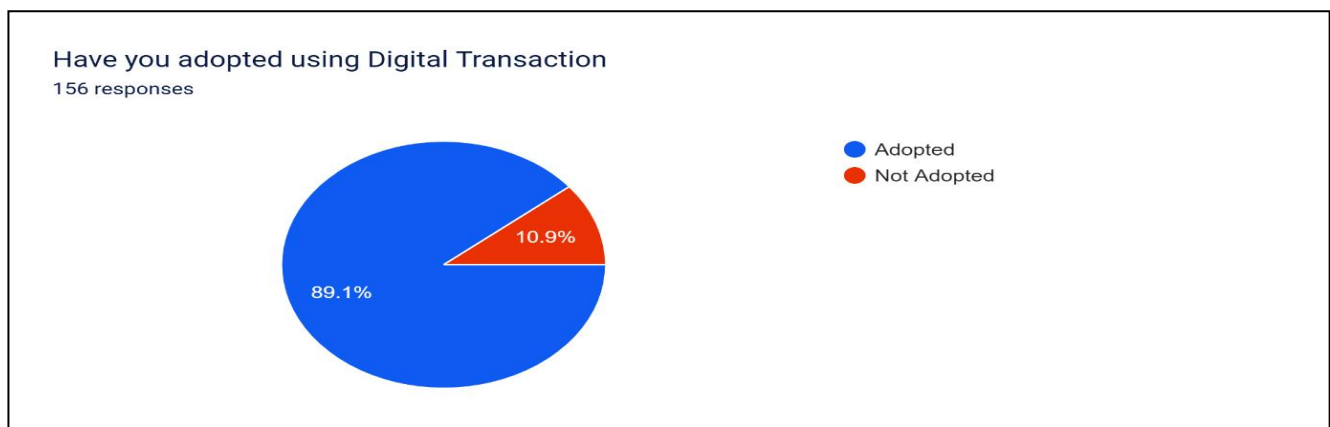
Since $\chi^2 = 6.81 < 16.92$, we fail to reject the null hypothesis. There is insufficient evidence to conclude that there is a significant association between Educational Qualification and Customer Preference & Adoption Rate.

This result indicates that there is no significant correlation between the two categorical variables.

Table 13 : Adoption Rate of Digital Transactions by Respondents (Adeyinka Tella, 2015)

Adoption Rate Of Digital Transaction Methods	Adopted	Not Adopted
Count	139	17

Figure 11 : Adoption Rate of Digital Transactions



Source : Survey Data

INTERPRETATION

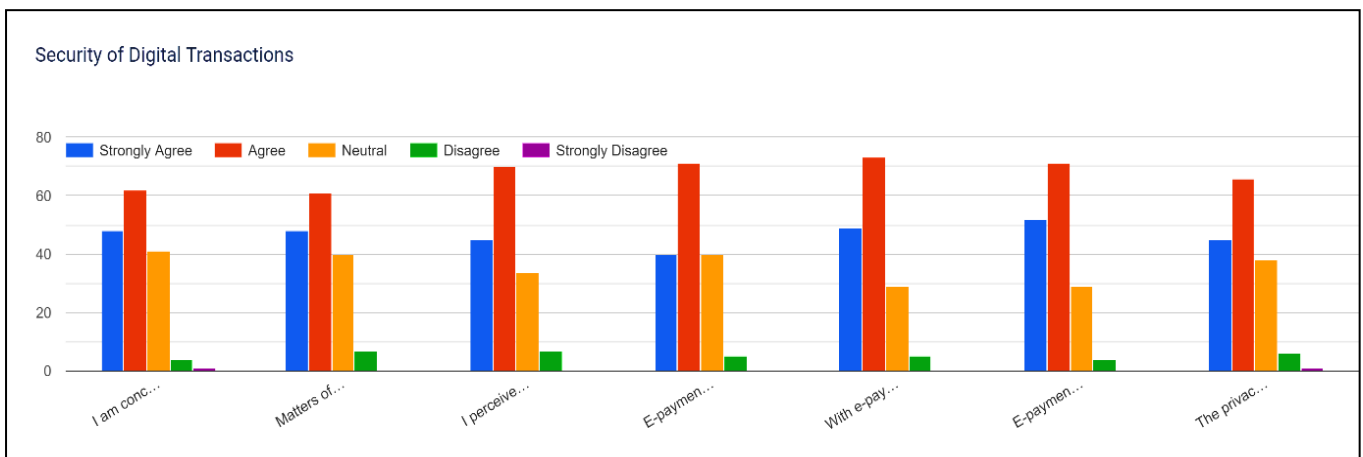
From the above table and chart, about 89.1% out of total respondents have adopted using Digital Transaction while only 10.9% of the respondents have not adopted.

Table 14 : Security Concerns of using Digital Transactions by Respondents (Vikas Gupta, 2021)

PARTICULARS	SA	A	N	D	SD
1. I Am Concerned About My Security When Using An E-Transaction System	48	62	41	4	1
2. Matters Of Security Have Significant Influence On Me In Using An E-Transaction System	48	61	40	7	0
3. I Perceive Digital Transaction System As Secure	45	70	34	7	0
4. E-Payment System Is The Most Secure Payments: Paying By Invoice	40	71	40	5	0
5. With E-Payment System, There Is The Fear That Hacker Can Threats Bank Website	49	73	29	5	0
6. E-Payment Provides Great Security For Salary Payment/Other Digital Transaction	52	71	29	4	0
7. The Privacy And Integrity Of My Personal Information Can Be Compromised	45	66	38	6	1

SECURITY CONCERNS OF USERS REGARDING USAGE OF DIGITAL TRANSACTIONS

Figure 12 : Security of Digital Transactions



Source : Survey Data

INTERPRETATION

From the above table and graph, 62 respondents Agree that they are Concerned About their Security While Using an E-Transaction System. 61 respondents Agree that Matters Of Security Have Significant Influence On them In Using An E-Transaction System. 70 respondents Agree that Digital Transaction System is Secure. 71 respondents Agree that E-Payment System Is The Most Secure Payment When Paying By Invoice. 73 respondents Agree that there is a Fear that Hacker can Threat Bank Website with E-Payment System. 71 respondents Agree that E-Payment Provides Great Security For Salary Payment/Other Digital Transactions. 66 respondents Agree that their Privacy And Integrity Of Their Personal Information Can Be Compromised.

CHI SQUARE TEST

Chi-square test for the 'Monthly Income' and 'Security of Digital Transactions' categorical variables:

1. Calculate Observed Frequencies (O):

Table 15 : Calculation of Observed Frequencies					
Monthly Income	Strongly Agree	Agree	Neutral	Disagree	Total
Up to ₹5000	27	31	8	2	68
₹5000 - ₹10,000	5	9	2	0	16
₹10,000 - ₹15,000	3	3	2	1	9
₹15,000 - ₹20,000	3	7	2	1	13
Above ₹20,000	15	28	7	0	50
Total	53	78	21	4	156

2. Calculate Expected Frequencies (E):

Table 16 : Calculation of Expected Frequencies					
Monthly Income	Strongly Agree	Agree	Neutral	Disagree	Total
Up to ₹5000	24.54	36.00	9.64	1.82	72
₹5000 - ₹10,000	5.42	7.96	2.13	0.40	16
₹10,000 - ₹15,000	2.06	4.51	1.21	0.22	9
₹15,000 - ₹20,000	4.13	6.08	1.63	0.31	12
Above ₹20,000	15.85	23.44	6.27	1.18	47

3. Compute the Chi-square Statistic (χ^2):

$$\chi^2 = (27 - 24.54)^2 / 24.54 + (5 - 5.42)^2 / 5.42 + \dots + (0 - 1.18)^2 / 1.18 \approx 3.845$$

4. Determine Degrees of Freedom (df):

$$df = (5 - 1) \times (4 - 1) = 12$$

5. Find Critical Value:

For $df = 12$ and $\alpha = 0.05$, the critical value is approximately 21.026.

6. Compare χ^2 and Critical Value:

Since $3.845 < 21.026$, we fail to reject the null hypothesis.

Conclusion:

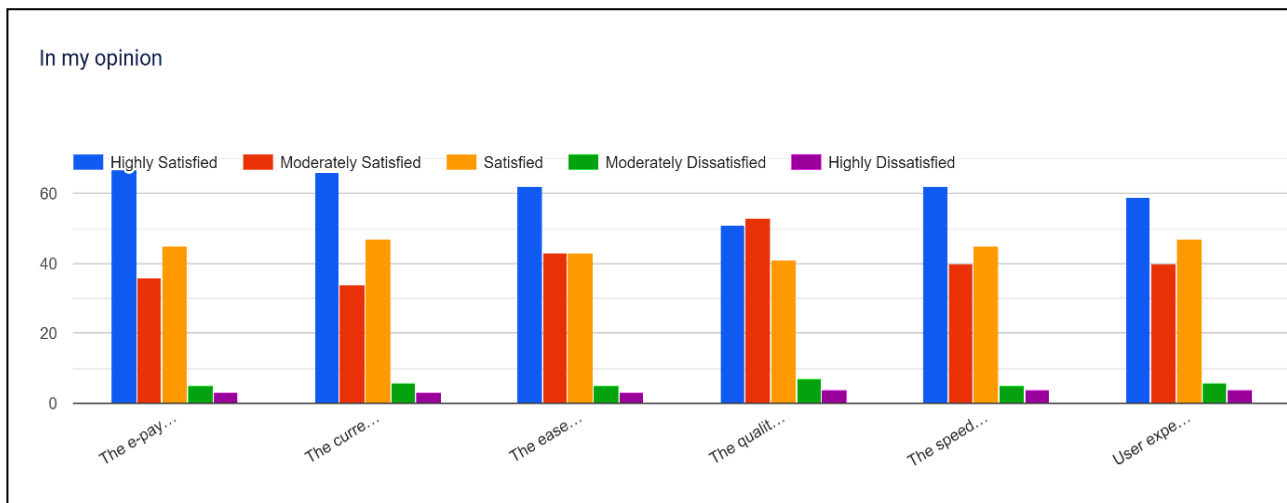
There is no statistically significant relationship between Monthly Income and Security of Digital Transactions levels at the 0.05 level of significance.

USER EXPERIENCE AND OVERALL SATISFACTION OF USERS USING DIGITAL TRANSACTIONS

Table 17 : Overall User Experience & Satisfaction of users using Digital Transactions & Payments. (Ayush Tyagi, 2023)

PARTICULARS	HS	MS	S	MD	HD
1. The E-Payment System Is Wonderful	67	36	45	5	3
2. The Current E-Payment System Is Revitalizing	66	34	47	6	3
3. The Ease Of Use And User-Friendliness Of Digital Payment Platforms Enhance My Satisfaction With The Service.	62	43	43	5	3
4. The Quality Of Customer Service And Support Provided By Digital Payment Platforms Affects My Satisfaction.	51	53	41	7	4
5. The Speed And Efficiency Of Transactions Impact My Overall Satisfaction With Digital Payment Services.	62	40	45	5	4
6. User Experience And Interface Design Play A Crucial Role In Enhancing My Overall Satisfaction With Digital Payment Platforms.	59	40	47	6	4

Figure 13 : Overall User Experience of Users using UPI and Digital Transactions



Source : Survey Data

INTERPRETATION

From the above table and graph, 67 respondents are Highly Satisfied that The E-Payment System Is Wonderful. 66 respondents are Highly Satisfied that The Current E-Payment System Is Revitalizing. 62 respondents are Highly Satisfied with The Ease Of Use And User-Friendliness Of Digital Payment Platforms. 51 respondents are Highly Satisfied About The Quality Of Customer Service And Support Provided By Digital Payment Platforms. 62 respondents are Highly Satisfied About The Speed And Efficiency Of Transaction In Digital Payment Service. 59 respondents are Highly Satisfied that the User Experience And Interface Design Play A Crucial Role In Enhancing Their Overall Satisfaction With Digital Payment Platforms.

CHI SQUARE TEST

1. Observed Frequencies (O):

Table 18 : Calculation of Observed Frequencies						
	HS	MS	S	MD	HD	Total
Male	30	28	16	4	2	80
Female	27	22	19	5	3	76
Total	57	50	35	9	5	156

2. Expected Frequencies (E):

Table 19 : Calculation of Expected Frequencies						
	HS	MS	S	MD	HD	Total
Male	36.54	31.75	22.14	5.67	3.14	80
Female	32.46	28.25	19.86	3.33	1.86	76
Total	57	50	35	9	5	156

3. Calculate X^2 :

$$X^2 = ((30 - 36.54)^2 / 36.54) + ((28 - 31.75)^2 / 31.75) + ((16 - 22.14)^2 / 22.14) + ((4 - 5.67)^2 / 5.67) + ((2 - 3.14)^2 / 3.14) + ((27 - 32.46)^2 / 32.46) + ((22 - 28.25)^2 / 28.25) + ((19 - 19.86)^2 / 19.86) + ((5 - 3.33)^2 / 3.33) + ((3 - 1.86)^2 / 1.86)$$

$$X^2 = (42.8916 / 36.54) + (14.0625 / 31.75) + (37.7796 / 22.14) + (2.7889 / 5.67) + (1.2996 / 3.14) + (29.9716 / 32.46) + (39.0625 / 28.25) + (0.7396 / 19.86) + (2.7889 / 3.33) + (1.2996 / 1.86)$$

$$X^2 = 1.1707 + 0.4435 + 1.7079 + 0.4916 + 0.4145 + 0.9232 + 1.3849 + 0.0372 + 0.8363 + 0.6989$$

$$\text{Therefore, } X^2 = 11.92$$

4. Determine Degrees of Freedom (df):

$$df = (2-1) \times (5-1) = 4$$

5. Find Critical Value:

For $df = 4$ and $\alpha = 0.05$, the critical value is approximately 9.488.

Results:

Since $X^2 > \text{Critical Value}$, we reject the null hypothesis.

In the context of categorical variables, we typically measure the association or strength of the relationship between them using measures like Cramer's V or Phi coefficient. These measures quantify the degree of association between two categorical variables. For this scenario, we can use Cramer's V to determine the correlation between the categorical variables 'Gender' and 'Overall User Satisfaction'. Cramer's V is a measure of association for nominal variables, ranging from 0 to 1, where 0 indicates no association and 1 indicates a perfect association.

The formula for Cramer's V is:

$$V = \sqrt{\frac{\chi^2}{n \times (k-1)}}$$

Where:

- χ^2 is the chi-square statistic
- n is the total number of observations
- k is the minimum of the number of rows and columns in the contingency table

Given that we already have calculated χ^2 as 11.92

$$\begin{aligned} V &= \sqrt{\chi^2 / (n * (k - 1))} \\ &\approx \sqrt{11.92 / (156 * (2 - 1))} \\ &\approx \sqrt{11.92 / 156} \\ &\approx \sqrt{0.0764} \\ &\approx \underline{0.245} \end{aligned}$$

So, the calculated Cramer's V is approximately 0.245.

The value of Cramer's V ranges from 0 to 1, where :

- 0 indicates no association between variables,
- 1 indicates a perfect association.

Conclusion:

Based on the calculated Cramer's V value of approximately 0.245, we can conclude that the hypothesis is that there is a moderate association between Gender and Overall User Satisfaction levels. This suggests that Gender may have some influence on Overall User Satisfaction, although other factors may also play a role.

Sample Profile :

The samples collected from the survey data includes the following :

- Total respondents of our Survey data collected is 156
- The majority age of respondents was 18 - 28 Years
- Active Participation both Genders were present which was 51.3% : 48.7%
- Majority of the respondents were single which is 69.2 %
- More than half of the respondents' highest Educational Qualification was Bachelor's Degree which is 52.6%
- The employment status showed that 60.3% out of total respondents were students followed by employees which was 26.3%
- The source of income showcased that most of the respondents were either not students or did not have any source of income
- The Monthly Income of the respondents depicts that 43.6% were having a income up to ₹5000

- Nature of Work was not applicable to majority of the respondents as we could identify that majority among them were students and they are not working, only rest were applicable to this statement.
- Around 90% of the respondents are aware about UPI & Digital Transactions. Remaining constituted that they are either not aware or not sure about the information regarding having the knowledge of UPI & Digital Transactions.

Findings :

- The study shows that the customers are adapting to digital transactions in modern scenario.
- The customers are technologically upgrading themselves to Digital Transaction Payment method for better and easier transactions to take place without physical cash requirement.
- There has been a rapid shift in transaction methods after the introduction of UPI in India.
- The greatest number of digital transactions takes place in India and from our study we could analyse that youngsters are much more prone to use UPI and Digital Transactions in everyday life.
- Users are concerned about the digital payment platform interface, trust, security and overall satisfaction while transacting the money.
- Though, among the respondents' senior citizens above the age of 50 are partially shifting to digital transactions and using UPI as they find it complicated to use.
- Many of them are shifting to digital transaction method as they find it convenient, reliable and time efficient to transact anywhere anytime.
- Users find it beneficial for transacting huge amount of funds, for example for those who have more than Rs.20,000 as their basic pay, their salary directly gets credited into account as of nowadays.
- New Innovations for improvising the overall satisfaction is a major factor that attracts more people to switch into UPI and Modern Digital Transaction methods.
- Customer Services, FAQs etc play a crucial role for those who encounter with any technical issues and thus availability of such services encourages more people to use UPI.

Suggestion :

- Enhance user interface for a more intuitive digital payment experience.
- Prioritize and communicate robust security measures to build trust among users.
- Offer specialized support for senior citizens to ease their transition to digital transactions.
- Launch educational campaigns to promote awareness and understanding of digital payment methods.
- Drive continuous innovation to stay ahead and improve user experience.
- Strengthen customer support infrastructure for quick resolution of technical issues.
- Highlight the benefits of digital transactions, especially for larger sums.
- Target younger demographics with tailored marketing messages emphasizing convenience.
- Streamline promotional efforts to showcase real-life scenarios of digital transaction advantages.
- Invest in user education to maximize the potential of UPI and digital payment methods.
- Implement personalized recommendations based on user transaction history.
- Expand accessibility through multilingual support and simplified processes.
- Foster a community for users to share tips and experiences with digital transactions.
- Conduct regular user feedback surveys to identify areas for improvement.
- Develop a gamified rewards system to encourage consistent usage.

- Partner with businesses to offer exclusive discounts for digital transactions.
- Integrate AI-powered chatbots for instant assistance and guidance.
- Host webinars and workshops to educate users on advanced digital payment features.

Conclusion Report :

In conclusion, the findings highlight a significant shift towards digital transactions, particularly with the widespread adoption of UPI in India. In conclusion, the study reveals a significant shift in customer preference towards UPI and digital transactions, driven by their convenience, reliability, and time efficiency. The rapid adoption rate, particularly among younger demographics, highlights the growing acceptance and integration of digital payment methods into everyday life. However, alongside this trend, users express notable security concerns regarding the usage of digital transactions. Trust, security, and overall satisfaction are paramount considerations for users, indicating a need for robust security measures and transparent communication to build and maintain trust in digital payment platforms. Despite these concerns, user experience and overall satisfaction with digital transactions remain positive overall. Enhancing user interfaces, investing in continuous innovation, and providing personalized support are crucial strategies to further improve user experience and address any lingering challenges. In summary, while the preference for and adoption rate of UPI and digital transactions continue to rise, it is essential to prioritize security measures, address user concerns, and enhance user experience to ensure the continued success and widespread acceptance of digital payment methods in the modern landscape. In conclusion, the study underscores the growing preference for UPI and digital transactions, driven by their convenience and efficiency. However, user concerns about security highlight the need for robust measures and transparent communication. Enhancing user experience through innovation and personalized support will be key to sustaining overall satisfaction and fostering trust in digital payment platforms, ultimately advancing financial inclusion and empowerment in the digital era.

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QUESTIONNAIRE ON UPI AND MODERN DIGITAL FINANCIAL TRANSACTIONS

Dear

recipient,

This questionnaire is intended to collect data on the topic "A COMPREHENSIVE STUDY OF UPI AND MODERN DIGITAL FINANCIAL TRANSACTIONS" - as part of our undergraduate research project for completion of our degree. The responses will be purely used for academic purpose only. We request you to fill and send this questionnaire so that it will become a valuable data for our work. We also request you to forward this questionnaire to your friends whom you think will be considerate in filling up this questionnaire and provide us with data.

We thank you for the kind gesture in providing us the data for our research project and enabling us to get our degree.

Thank You,

Arvind Pai M C

Adheeshwar A S

B.Com 6th Semester Students

Amrita School of Arts, Humanities and Commerce, Kochi Campus

* Indicates required question

DEMOGRAPHIC AND RESPONDANTS PROFILE

1. Age *

Mark only one oval.

- ☐ BELOW 18 YEARS
- ☐ 18 - 28 YEARS
- ☐ 29 - 39 YEARS
- ☐ 40 - 50 YEARS
- ☐ 51 and ABOVE

2. Gender *

Mark only one oval.

☐ Male

☐ Female

3. Marital Status *

Mark only one oval.

☐ Single

☐ Married

4. Educational Qualification *

Mark only one oval.

☐ High School

☐ Bachelors Degree

☐ Masters Degree

☐ Doctorate or Higher

5. Employment Status *

Mark only one oval.

☐ Student

☐ Employed

☐ Unemployed

☐ Retired

6. Source of Income (if Student) *

Mark only one oval per row.

	Pocket Money	Part Time	N/A
Student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Monthly Income *

Mark only one oval.

- ☐ Up to ₹5000
- ☐ ₹5000 - ₹10,000
- ☐ ₹10,000 - ₹15,000
- ☐ ₹15,000 - ₹20,000
- ☐ Above ₹20,000

8. Nature of your Work (if any) *

Mark only one oval.

- ☐ Full Time
- ☐ Part Time
- ☐ NA

CUSTOMER PREFERENCES, ADOPTION RATE OF UPI & DIGITAL TRANSACTIONS

9. Are you aware of UPI and Modern Digital Financial Transactions ? *

Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Not Sure

10. Consumer perception towards Digital Transaction System *

Mark only one oval per row.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
A Digital transaction system is better than traditional transaction methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital Transaction system is much more efficient than traditional transaction channels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will choose the trusted Digital Transaction system to make transaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that a user-friendly Digital Transaction system will influence me to adopt the system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Have you adopted using Digital Transaction *

Mark only one oval.

☐ Adopted

☐ Not Adopted

**SECURITY CONCERNS OF USERS REGARDING USAGE OF DIGITAL
TRANSACTIONS**

12. Security of Digital Transactions *

Mark only one oval per row.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I am concerned about my security when using an e-transaction system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Matters of security have significant influence on me in using an e-transaction system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I perceive Digital Transaction System as secure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E-payment system is the most secure payments: paying by invoice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
With e-payment system, there is the fear that hacker can threats bank website	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E-payment provides great security for Salary Payment/other Digital Transaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The privacy
and integrity
of my personal
information
can be
compromised

☐☐☐☐☐

USER EXPERIENCE AND OVERALL SATISFACTION OF USERS USING DIGITAL TRANSACTIONS

13. In my opinion *

Mark only one oval per row.

	Highly Satisfied	Moderately Satisfied	Satisfied	Moderately Dissatisfied	Highly Dissatisfied
The e-payment system is wonderful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The current e-payment system is revitalizing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ease of use and user-friendliness of digital payment platforms enhance my satisfaction with the service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality of customer service and support provided by digital payment platforms affects my satisfaction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The speed and efficiency of transactions impact my overall satisfaction with digital payment services.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
User experience					

experience
User
and
experience
interface
design play
a crucial
role in
enhancing
my overall
satisfaction
with digital
payment
platforms.

☐☐☐☐☐

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