

"Impact of Unified Payment Interface (UPI) in financial inclusion on Street Vendors of Delhi"

A Dissertation submitted to Panjab University, Chandigarh for the award of degree of Master of Arts in Public Administration and Public Policy, in partial fulfillment of the requirement for the Advanced Professional Programme in Public Administration
(2024-25)

Submitted by

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**50th ADVANCED PROFESSIONAL PROGRAMME IN PUBLIC
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INDIAN INSTITUTE OF PUBLIC ADMINISTRATION, NEW DELHI

CERTIFICATE

I have the pleasure to certify that **Jai Prakash** has pursued his research work and prepared the present dissertation titled '**Impact of Unified Payment Interface (UPI) in financial inclusion on Street Vendors of Delhi**' under my guidance and supervision. The same is the result of research done by him and to the best of my knowledge; no part of the same has been part of any monograph, dissertation or book earlier. This is being submitted to the Panjab University, Chandigarh, for the purpose of **Master of Arts in Public Administration and Public Policy** in partial fulfillment of the requirement for the Advanced Professional Programme in Public Administration (APPPA) of Indian Institute of Public Administration (IIPA), New Delhi.

I recommend that the dissertation of **Jai Prakash** is worthy of consideration for the award of Master of Arts degree of the Panjab University, Chandigarh

Date: March, 2025

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DECLARATION

I, the undersigned, hereby declare that the dissertation titled '**Impact of Unified Payment Interface (UPI) in financial inclusion on Street Vendors of Delhi**' is my own work and that all the sources I have accessed or quoted have been indicated or acknowledged with completed references and bibliography.

The Dissertation has not been submitted for any other degree of this university or elsewhere.

Date: March, 2025

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List of Abbreviations

Abbreviations	Full Form
2FA	Two-factor authentication
AA	Account Aggregator
ATM	Automated Teller Machine
BSBD	Basic Savings Bank Deposit
BPSS	Board for Regulation and Supervision of Payment and Settlement Systems
CAGR	Compound Annual Growth Rate
COD	Cash on Delivery
CY	Calendar Year
DBT	Direct Benefit Transfer
DeFi	Decentralized finance
DCCBs	District Central Cooperative Banks
E-com	Electronic Commerce
FIs	Financial Institutions
Fintech	Financial Technology
GDP	Gross Domestic Product
IAP	In-App Payments
IFSC	Indian Financial System Code
IMPS	Immediate Payment Service
ICCW	Interoperable Card-less Cash Withdrawal
IPOs	Initial Public Offerings
IJSREM	International Journal of Scientific Research in Engineering and Management
KYC	Know Your Customer
LoR	Letter of Recommendation
M-Com	Mobile Commerce
MFI s	Micro Finance Institutions
MSME s	Micro, Small and Medium Enterprises

NFS	National Financial Switch
NEFT	National Electronic Funds Transfer
NFC	Near Field Communication
NPCI	National Payments Corporation of India
ONDC	Open Network for Digital Commerce
PIN	Personal Identification Number
PMJDY	Pradhan Mantri Jan Dhan Yojana
PMSVANIDHI	Prime Minister Street Vendor's AtmaNirbhar Nidhi
P2M	Person to Merchant
P2P	Person to Person / Peer to Peer
PPIs	Prepaid Payment Instruments
PSP	Payment service Providers
QR Code	Quick Response Code
RBI	Reserve Bank of India
RTGS	Real Time Gross Settlement System
SDGs	Sustainable Development Goals
SHGs	Self Help Groups
StCBs	State Cooperative Banks
SVs	Street Vendors
TPAPs	Third-Party Application Providers
TVC	Town Vending Committee
ULB	Urban Local Body
UNCDF	United Nations Capital Development Fund
UPI	Unified Payment Interface
UNCDF	United Nations Capital Development Fund
VPA	Virtual payment address

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Executive Summary

The Unified Payments Interface (UPI) has emerged as a transformative digital payment system, revolutionizing financial transactions globally. Its global significance lies in its potential to enhance financial inclusion, reduce transaction costs, and facilitate seamless money transfers. Internationally, UPI has been recognized for its innovation and scalability, offering a model for other nations to emulate, especially in regions with large unbanked populations.

On a national level, UPI's implementation in India has significantly improved access to financial services, particularly in urban, rural and underserved areas, positioning it as a key enabler of India's digital economy. In the context of Delhi, street vendors—who form a large part of the informal economy—remain largely excluded from formal financial systems. This exclusion limits their access to credit, insurance, and other essential financial services, impeding their growth and financial security.

This dissertation justifies the exploration of UPI's impact on street vendors by addressing the gap in understanding how digital payment systems can facilitate their inclusion in the formal economy, leading to better financial stability and access to services.

The primary objectives of this study are to evaluate adoption of UPI among street vendors in Delhi, identify the specific challenges in adoption of UPI by Street vendors, specific challenges while using UPI by street vendors, and assess the impact of UPI on their business operations and financial inclusion and explore the opportunities that UPI presents for empowering them. The study has also provided recommendations to address these challenges and enhance UPI's effectiveness.

The methodology employs a mixed-methods approach, combining quantitative surveys and qualitative interviews to gather comprehensive data from street vendors in various parts of Delhi.

The findings from the research study underscore the significant influence of UPI on the operational dynamics of street vendors in Delhi. While many vendors have embraced UPI for its convenience and potential to enhance sales, challenges remain that can impede broader financial inclusion efforts.

Some major findings of the research study are mentioned as following:

For Street vendors of Delhi, who are using UPI

- UPI has not only made financial transactions secure, fast and effortless, but it has also empowered individuals, small businesses, merchants, street vendors in driving the country's economy toward cashless.
- QR code with Voice Boxes for UPI Payment has facilitated to adopt UPI among street vendors who are not even formally educated.
- UPI has been the most significant contributor in growth of digital payments. Its contribution to digital payments volume surged from 34% in CY-2019 to an impressive 83% in CY-2024, with a remarkable CAGR of 74% over five years.
- UPI P2M transaction volume has surpassed the UPI P2P transaction volumes since 2023. However, in value terms, the UPI P2P transaction value is still higher than UPI P2M transaction values.
- 83.6% of street vendors owning smartphones, which indicates that the accessibility of technology significantly contributes to UPI's adoption

- 100% street vendors accept payment in the mode of cash as well as UPI from their customers. However, majority of SVs (61.8%) have reported that UPI payments is convenient than cash payments
- 93.6% of street vendors reported not receiving formal training on using UPI. It indicates a critical gap in knowledge that could hinder effective usage of the UPI platform.
- Majority of street vendors s 47.3% responded that they receive 51%-75% of total sales through UPI.
- Majority of street vendors (about 91.8%) responded that UPI payments have made it easier for customers to buy from them.
- Majority of street vendors (97.3%) reported that they have bank accounts and 75.5% SVs receives UPI payments directly in their bank accounts, showcasing the positive impact of UPI on financial inclusion
- Majority of street vendors (61.8%) informed that a UPI payment has helped them to reduce the risk of theft or loss of cash.

For Street Vendors of Delhi, who have not adopted UPI

- Majority of street vendors who have not adopted UPI, their educational qualification is either no formal education or primary level.
- About 54.3% street vendors do not possess Smart phone. While, about 45.7% street vendors informed that they are having smart phone.
- Majority of street vendors (57.1%) do not have access to a stable internet connection for digital payments
- Majority of street vendors are not using UPI payment due to lack of trust on digital payments and there are Security concerns like (fraud, data theft).

- Majority of street vendors (88.6%) responded that government or private organizations should offer more support (e.g., training, financial incentives) to encourage to use UPI.

The study also revealed certain challenges, such as lack of trust on digital payment systems, including security concerns, network connectivity issues, limited digital literacy, more dependency on cash payment, high charges of UPI sound box, delay in credit of UPI amount in bank account which hinder the seamless adoption of UPI.

To address these challenges, strategic interventions are necessary. Stakeholders, including government agencies and private organizations, should prioritize efforts to increase technology access, enhance digital literacy, and build trust in digital payment systems. By providing targeted support and incentives, stakeholders can facilitate a transition towards greater financial inclusion for street vendors, ultimately bridging the digital divide in the payment landscape. Overall, UPI's role in shaping the future of street vending in Delhi presents a promising avenue for advancing economic inclusion in India's informal sectors.

Chapter 1

Introduction

"I praise street vendors because of the way they have adopted digital India. I think it has been a great job. Those who were insulted, called illiterate, those street vendors, today they are the face of India's digital revolution"

Hon'ble Prime Minister Shri Narendra Modi at India Today Conclave, March 2024

1.1 Background

As per Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 of India, "street vendor" means a person engaged in vending of articles, goods, wares, food items or merchandise of everyday use or offering services to the general public, in a street, lane, side walk, footpath, pavement, public park or any other public place or private area, from a temporary built up structure or by moving from place to place and includes hawker, peddler, squatter and all other synonymous terms which may be local or region specific; and the words "street vending" with their grammatical variations and cognate expressions, shall be construed accordingly (The Gazette of India, 2014).¹

In recent years, India has experienced a notable transformation in the conduct of financial transactions, primarily driven by the digital revolution. The widespread adoption of digital payment platforms has propelled this transformation, with the

¹ [https://mohua.gov.in/upload/uploadfiles/files/StreetVendorAct2014_English\(1\).pdf](https://mohua.gov.in/upload/uploadfiles/files/StreetVendorAct2014_English(1).pdf)

Unified Payments Interface (UPI) at the forefront. Initiated in 2016 by the National Payments Corporation of India (NPCI), UPI has transformed the financial landscape by facilitating instant and secure money transfers between bank accounts through mobile devices. This system eliminates the reliance on conventional banking methods, providing a smooth and intuitive experience that has gained acceptance across multiple sectors, especially within micro and small enterprises (Shetty et al., 2024).

In the field of banking, the Unified Payments Interface (UPI) is revolutionizing financial transactions by simplifying them using a user-friendly process. Since its launch in 2016 by the National Payments Corporation of India (NPCI), UPI has grown to be an essential tool for streamlining financial transactions, especially when utilizing mobile apps. With UPI, peer-to-peer transactions are quick and secure, allowing for instant fund transfers between linked bank accounts, similar to text messaging. This offers flexibility to small enterprises and street vendors, as well as one-on-one engagements. UPI helps local business owners' move away from cash-only transactions and improves everyday operations' efficiency. It is a desirable and feasible option for individuals who have traditionally relied heavily on cash, promoting financial accessibility and lessening dependency on physical cash (Suhail et al., 2024).

Many of street vendors operate in the informal sector and for them UPI offers a potential lifeline. Historically, these vendors have faced numerous challenges, including limited access to traditional banking services, cash-based transactions, and a lack of formal financial tools. Thereby, they have remained outside the formal financial system.

With UPI, these vendors now have an opportunity to integrate into the digital economy. This is particularly important in a metro city like Delhi, where large numbers of street vendors provide essential services and products to the urban population. By adopting UPI, these vendors can potentially expand their customer base, increase sales, and have greater access to financial services, all of which contribute to greater financial inclusion.

1.2 Payment Systems in India

Payments form the backbone of any economic activity. They are increasingly being recognized as a means of achieving financial inclusion by ensuring that economic benefits reach all segments of society. The legal foundation for regulating payment systems evolved from the Payments and Settlement Systems Act, 2007 (PSS Act). The Reserve Bank of India (RBI) regulates, supervises, and licenses payment system operators, ensuring safety, security, efficiency, and effectiveness of the payment ecosystem as well as protecting the interests of the consumers. The Board for Regulation and Supervision of Payment and Settlement Systems (BPSS), chaired by the RBI Governor, formulates policies for the regulation and supervision of all types of payment and settlement systems, sets standards for existing and future systems, authorises payment and settlement systems, determines criteria for membership to these systems and decides on continuation, termination and rejection of membership (RBI, 2024).²

²<https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/PSR270120251BEE95CF47F2426B9740075D405FA070.PDF>

1.3 Unified Payment Interface (UPI)

The Unified Payment Interface (UPI) is a groundbreaking digital payment system that has transformed how people in India send and receive money. UPI was launched in 2016 by the National Payments Corporation of India (NPCI), UPI allows users to make instant, secure, and seamless financial transactions directly between bank accounts using their smartphones. (NPCI, 2025)

Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the “Peer to Peer” collect request which can be scheduled and paid as per requirement and convenience (NPCI, 2025).³

What makes UPI stand out is its simplicity and convenience—it doesn’t require users to remember long bank account numbers or carry cash for payments. With UPI, all you need is a mobile phone, a bank account, and a virtual payment address (VPA). Transactions can be done with just a few taps, whether it’s paying for groceries, splitting bills with friends, or sending money to family members. It’s available 24/7, which means you can transfer money at any time without worrying about banking hours. UPI has become a game-changer in India, not just for the tech-savvy, but for people from all walks of life, including those without access to traditional banking services. It has significantly boosted financial inclusion, especially in remote and underserved areas. With the growing popularity of UPI, it’s clear that digital payments are no longer just a trend—they’re an essential part of modern life.

³ <https://www.npci.org.in/what-we-do/upi/product-overview>

The Unified Payments Interface (UPI) showcased its scalability and reliability with a 100 per cent uptime and processing of 54 crore daily average transactions in December 2024 (up from 39 crore in December 2023). (RBI, 2025) ⁴

1.4 Statement of Problem

Street vendors play an important role in the economy in India, especially in urban areas like Delhi, where they provide affordable goods and services to millions of people. Although their contribution in the economy is very significant, yet street vendors face many challenges, in terms of financial inclusion. Many of them have remained excluded from formal financial services, like access to banking accounts, loans, and digital payment systems. This exclusion has prevented them to grow in the field of their businesses.

Government of India launched a digital payment system Unified Payment Interface (UPI), which has been called as a transformative tool for financial inclusion, especially for underserved populations. UPI allows users to transfer money between banks using smart phones. UPI provides a unique facility for immediate, secure, and seamless digital transactions. Although UPI has seen widespread adoption across various sectors, yet its impact on street vendors, particularly in a metro city like Delhi, has not been explored.

While, Government has put all efforts of financial inclusion for Street Vendors through digital mode of transaction, still some Street Vendors have not adopted digital

⁴<https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/OBULLETIN17012025618F21033FC94574912BF428F88A50.PDF>

mode of transaction. Cash transaction is still a priority for street vendors in comparison to online transaction. Their dependency on cash transaction may be due to risk of online fraud or scam during the payments receiving from customers.

This research seeks to understand how UPI affects financial inclusion for Street Vendors in Delhi. The aim of study is to identify the specific challenges in adoption of UPI by Street vendors, specific challenges while using UPI by street vendors, and explore the opportunities that UPI presents for empowering them. At last, the study will provide recommendations to address these challenges and enhance UPI's effectiveness.

1.5 Rationale for the study

UPI has the potential to be a transformative tool for financial inclusion, especially for Street Vendors who play a crucial role in Delhi's economy. However, despite their crucial economic contribution, they often face significant challenges when it comes to accessing formal financial systems. These challenges include limited access to banking, reliance on cash transactions, and a lack of financial literacy. As a result, many street vendors remain financially excluded, unable to expand their businesses or protect themselves against financial risks.

UPI's adoption among street vendors is still under-researched, and the full potential of this digital payment platform in enhancing financial inclusion for this group remains largely unexplored. This study is motivated by the need to understand how UPI can address the specific barriers that street vendors face in accessing financial services. By focusing on Delhi, one of India's largest and most diverse cities, this research aims to explore the challenges and opportunities UPI presents to street vendors in their day-

to-day operations. By exploring the potential impact of UPI, this research will contribute to the broader discourse on digital financial inclusion in India, helping to inform policies and practices that can better support informal sectors like street vending.

1.6 Research Objectives

The aim and objectives of this dissertation are as follows:-

- (a) Assess the impact of UPI on financial inclusion among Street Vendors in Delhi.
- (b) Identify and analyze the challenges faced by Street Vendors in adopting and using UPI.
- (c) Investigate the opportunities UPI provides for empowering Street Vendors and supporting their business growth.
- (d) Propose actionable recommendations and strategies to overcome challenges and enhance UPI's effectiveness for Street Vendors in Delhi.

1.7 Research Questions

The research questions are as following:-

- (a) What is the impact of UPI on financial inclusion among Street Vendors in Delhi?
- (b) What specific challenges do Street Vendors of Delhi face in adopting and using UPI?
- (c) What opportunities does UPI offer for empowering Street Vendors in Delhi?
- (d) What strategies can be implemented to overcome challenges and improve UPI's effectiveness for Street Vendors in Delhi?

1.8 Chapterisation

The dissertation has the following chapters:-

- (i) Chapter 1 – Introduction
- (ii) Chapter 2 –Literature Review
- (iii) Chapter 3 – Overview of UPI
- (iv) Chapter 4 – UPI and Financial Inclusion
- (v) Chapter 5– Data Analysis and Findings on Research Survey of the street vendors who are using UPI
- (vi) Chapter 6 – Data Analysis and Findings on Research survey of the Street vendors who have not adopted UPI
- (vii) Chapter 7 – Conclusion & Recommendations

1.9 Research Strategy and Research Design

The research is descriptive in nature. A mixed research strategy was adopted to gain a comprehensive understanding of UPI's impact on financial inclusion for street vendors of Delhi. This involves both quantitative and qualitative approaches.

Quantitative Analysis: In order to assess impact of Unified Payment Interface (UPI) in financial inclusion on Street Vendors of Delhi, a sample questionnaire was prepared. Subsequently, a pilot survey was conducted with 8-10 street vendors on the basis of sample questionnaire. As per their responses the questionnaire was modified to know their insight on perspectives of UPI Payment. The survey was conducted with street vendors working in different sectors in different parts of Delhi during the months of January, February and March 2025.

The survey was conducted using two types of questionnaires. Firstly, survey was conducted with Street vendors, who are using UPI payment from their customers and secondly from the street vendors who have not adopted UPI Payment. (Copies of these questionnaires have been attached as **Appendix-A & Appendix-B**)

This Survey was conducted with the help of structured questionnaire administered in person to the street vendors in Delhi. Special care was taken to administer the questionnaire both in English and Hindi language for maximum outreach and wider participation.

Due to paucity of time responses were collected from only 110 street vendors of Delhi, who are using UPI payment from their customers. Also, responses were collected from 35 street vendors of Delhi, who have not adopted UPI payment.

Qualitative Analysis: Focus groups interview was conducted with some Street Vendors of Delhi. Also, meetings/interview was conducted with officials/experts from following stakeholders:

- (i) Banks
- (ii) Financial expert

It was tried to schedule interview with officials of NPCI, but due to their busy meetings with other stakeholder, interview could not be conducted.

(a) Primary Data Sources:

Primary data was collected through the questionnaire for street vendors of Delhi who have not adopted UPI and who are using UPI. Also, meetings/interview was done with Banks officials and financial expert to get feedback from different stakeholders.

A survey was conducted using two types of questionnaire to assess the impact of UPI (Unified Payments Interface) on financial inclusion of street vendors of Delhi. Firstly, survey was conducted with Street vendors, who are not using UPI to understand the reasons for not adopting UPI. Secondly, survey was conducted with Street vendors who are using UPI as digital payment from their customers. This survey was conducted to gain deeper insights into the adoption and challenges faced by street vendors in using digital payment methods. The responses to the questionnaire were correlated and analysed with the inputs gathered from ground truthing.

(b) Secondary Data Sources:

Secondary data have been taken from open accessible information available in the internet and inter-alia includes reports, books, periodicals, relevant research papers, articles and journals, analysis of related Government policy documents, published reports and other study reports.

1.10 Scope/Limitations

Scope: The study seeks to draw from primary and secondary data sources. The study is limited focus on Street Vendors operating in Delhi, analyzing their experiences with UPI across various business sectors and areas within the city. The study also analyzes experiences of street vendors, who are not using UPI.

Limitations:

- (i) The study remains focused specifically on Delhi, which may limit the applicability of the findings to other cities or regions.
- (ii) The research is limited to Street vendors and not covers large businesses or other financial technologies beyond UPI.

- (iii) Due to limited time duration, sample size and geographical spread for study is limited.
- (iv) Response bias and limited sample size in surveys and interviews may impact the accuracy of the results.

Chapter 2

Literature Review

2.1. Introduction

The literature review is a vital component of research. Its purpose is to provide a comprehensive overview of existing studies, theories, and frameworks related to research topic, highlighting what has already been explored and identifying areas that remain under-explored or unresolved.

To get comprehensive overview and understanding of the existing research and literature relevant to the research topic a detailed literature review has been undertaken. It helps to provide a theoretical and conceptual framework for the research by highlighting key concepts, theories, and methodologies that have been used by other researchers in the field. Overall, the literature review is an essential component of a research as it provides the foundation for the research by establishing the context, identifying gaps and research questions, and providing a theoretical framework for study.

2.2. Details of Studies/Reports/Journals

The following literatures like books, articles and research papers have been reviewed:-

2.2.1. Ratnesh and Goel (2021) discuss the economic sustainability of digital business processes for fixed food vendors in Meerut City. The study reveals that whether educated or not, vendors are aware of the importance and need of adopting to digital processes for their business. One of the benefits of adopting digitalization is

the increase in revenues and customer base. This study also emphasizes that digitalization should not be limited to just accepting digital payments. Other processes like customer relationship management, delivery of products, etc. should also be facilitated using digital methods. The study has also explained that the future growth of these food hawkers heavily depends upon how effectively they are able to manage the change resulting in the economic sustainability of their business.

2.2.2. Sheik and Sareswathy (2016) discuss the financial inclusion of urban street vendors in Palayamkottai. The study analyses that street vendors are far away from accessing proper banking services. They face a lot of problems while going to avail any banking services. There are many reasons which keep the street vendors away from accessing any banking service. These reasons are like (i) Lack of identity documents, proof of address, tenure or legal rights over their place or business and evidence of their trades and professions creates inability of the street vendors to access the formal financial services , (ii) lack of financial literacy among street vendors, (iii) Lack of regular substantial income, (iv) Frequent removal /evacuation of markets make their life more miserable because of uncertainty of income, (v) Low level of savings habit, (vi) No proper response from banks, (vii) Banks heisted to provide micro finance to the street vendors on the ground that they unable to provide security against credit.

2.2.3. Bhat and Singh Chauhan (2023) explore the adoption factors and trust variables related to UPI among retailers and consumers in low- and middle-income communities. This study identified and categorized into two factors, (i) adoption factors and (ii) trust factors. The adoption factors relate the most with UPI's growing consumer demand, rising popularity, and a reduction in troubles of handling cash,

whereas the factors for trust are bolstered by the benefits UPI provides in terms of convenience, positive consistent transaction experience, reduction in safety concerns, and many more.

Acting as a brilliant platform for enabling the government's digital schemes and programs, UPI helps foster digital financial inclusion by extending its roots further to the underserved and underbanked areas in the country. This in turn boosts people's participation in the digitization of financial practices, further giving rise to e-commerce and e-services. Great examples here could be the Open Network for Digital Commerce (ONDC), and data-sharing framework by Account Aggregator (AA), which when complimented with UPI, are set to revolutionize the digital ecosystem of the country, and all related service fields.

2.2.4. Suhail, Vishnuraj, Gochhayat, and Khan (2024) conducted a study on the perception of street vendors towards UPI payments in Phagwara town of Punjab. The study reveals a good level of acceptance and satisfaction among street vendors, particularly those aged 40-50 and individuals with secondary education. Additionally, there's a significant opportunity to engage female vendors, who show a higher satisfaction rate, emphasizing the importance of inclusive strategies for UPI adoption. Overall, the study underscores the necessity for tailored interventions to address the unique needs and concerns of street vendors. It also emphasizes the critical role of education and awareness campaigns in mitigating perceived risks related to digital payments. By leveraging these insights, stakeholders can develop targeted initiatives to promote greater UPI adoption, ultimately fostering financial inclusion and economic empowerment within Phagwara's thriving street vending community.

2.2.5. Shetty, M, Kumar, and Shashikanth (2024) discuss the adoption of UPI among micro businesses in Mysore. The study indicates that UPI has significantly transformed micro businesses in Mysore, improving operational efficiency and facilitating a more streamlined payment process. Nonetheless, obstacles, including security concerns, connectivity issues, and varying levels of digital literacy, continue to impede its complete potential. By tackling these obstacles through focused interventions and continuous support from technology providers and policymakers, UPI can enhance financial inclusion and stimulate economic growth in Mysore's dynamic micro-business sector.

2.2.6. D, Rakshitha, Jaiswal, Srivastava, Rachana, and Sahay (2024) explore the financial literacy of street vendors. The study highlights significant barriers that the street vendors encounter, including limited education, restricted access to financial resources, and cultural obstacles. These challenges hinder their ability to engage with formal financial services effectively, contributing to their financial vulnerability. While street vendors do contribute to the cultural vibrancy of communities to some extent, their full potential remains untapped due to these barriers. Encouraging education and literacy among street vendors emerges as a crucial factor in addressing these challenges, with campaigns and initiatives aimed at promoting education and awareness proving essential.

Financial literacy directly impacts the productivity of the vendors. Through our research, we found that financial literacy has a great impact on the accessibility and usage of various financial products. This further makes the street vendors financially capable to handle their finances, making financial decisions on their own.

2.2.7. Yadav, Singh, Tripathi, and Baral (2023) explored the factors influencing petty vendors' adoption of the Unified Payment Interface. The study analyses that performance expectancy and effort expectancy factors have affected petty vendors while using UPI, but social influence did not much affect petty vendors. UPI allows petty vendors to make quick payments. In addition, Petty vendors don't face any major problems while using UPI. This study shows that petty vendors positively respond to a Unified payment interface, and there is a relationship between occupation and age. Educated people use UPI services, and most of the respondents are younger. UPI is a trendy and most preferred payment service among vendors in the Delhi NCR region. It makes payment easy to transfer, quick, and hassle-free. Therefore, it is concluded that the petty vendors of Delhi NCR are immensely benefited from the transactions or payments received from the customers. The study's implications suggest that service providers should focus on enhancing the performance and effort expectancy factors to encourage more petty vendors to use UPI services.

Furthermore, the study shows that education and age play a vital role in adopting UPI by petty vendors. Hence, policymakers and service providers should focus on increasing awareness and educating people about the benefits of UPI, particularly among the older and less-educated population.

2.2.8. Rastogi, Panse, Sharma, and Bhimavarapu (2021) explored the impact of Unified Payment Interface (UPI) on financial inclusion and economic development. According to their study, the adoption of UPI significantly impacts financial literacy, leading to greater financial inclusion and ultimately contributing to economic development. The study finds that the major drivers which support the sustainability

of the UPI platform are accessibility to the technology, convenience, cost effective and citizens voluntary exclusion in the financial inclusion.

The findings suggest that UPI adoption positively impacts individuals in multiple ways beyond just facilitating financial transactions. Overall, the study highlights the importance of financial literacy and inclusion in promoting economic growth and UPI's role in facilitating this process.

2.2.9. Suman (2024) conducted an analytical study on the initiatives and impact of financial inclusion in India. The study suggests that even though enough efforts are being made by all stake holders viz Regulator, Government, Financial Institutions and others, the efforts are not yielding the kind of result expected. The regulator has to create a suitable regulatory environment that would keep the interest of all the stakeholders. The concern of banks about profitability is to be addressed by the regulator as the entire process of financial inclusion would be a kind of social work in the first few years. The concerns of the government about the reach, feasibility and implementation of government policies to the last mile needs to be addressed. The easy availability of financial services to the last mile user, the people in tier 3 to tier 6 in entirety needs to be addressed. Thus, Innovative products, out of the box service models, effective regulatory norms and leveraging technology together could change the landscape of the current progress of the much needed and wanted, Financial Inclusion Program.

2.2.10. Gupta and Pote (2023) explore the use of digital banking with a focus on the UPI payment method for consumers and street vendors in their case study of Vidya Vihar and Ghatkopar in Mumbai. The case study indicates that street vendors

are not very happy with Digital Banking because they get fraud/cheated. Due to Digital Banking, they don't have money in their hands to spend and they are not comfortable with digital banking. They find it very confusing when it involves UPI apps. The government has to take some initiative and spread more awareness about online banking and UPI. When the road vendors buy their raw materials, they need to pay in cash which is a disadvantage for them. Though many of the road vendors are literate, understanding new technology is difficult for the older generation which is 40 and above. On the other hand, consumers are very comfortable with digital banking; they're okay with both cash and digital transactions.

2.2.11. Nandru, Chendragiri, and Velayutham (2021) examine the determinants of digital financial inclusion in India, drawing evidence from the World Bank's global finindex database. Government of India has emphasized digital financial inclusion as a result of demonetization for promoting cashless transactions with a vision to transform India from a traditional cash-based economy into a cashless economy.

The study has explored that the digital based money payment tools are facilitated in greater access to e-government services and improving the speed, efficiency, accuracy, and effectiveness of delivering public services. Additionally, this system employs the technology-based payments to bring government closer to citizen's specifically unorganized sector workers, farmers and other underprivileged people. The current study investigated the demand side determinants of accessibility of digital financial services, which is measured by three variables such as ownership of debit card, credit card, and mobile money account based on 2017 World Bank's global finindex database.

The individual's characteristics such as female, age, income, education and employment status are significantly determining accessibility of digital financial inclusion in India. In case of usage of digital financial services, education, income, and employment status are found to be significant. . Finally, individual characteristics such as being aged, income, education and employment status have significant effect on digital payments made and receipts.

2.2.12. Dewangan, Aggrawal, Chimnani, Dubey, and Mishra (2024) discuss India's digital revolution, focusing on UPI, payment leaders, and future insights in their study published in the International Journal of Scientific Research in Engineering and Management (IJSREM).

The study majorly focused on the “Strategic analysis of UPI Applications in INDIA”. The study revealed that the user Base of UPI apps is increasing due to various benefits Such as ease of use, two factor authentication, no need to Carry change was major benefit for the users. UPI stands at the top of the payment System in INDIA with more than 50% of payments have been done by adopting it and surpassing the other modes of Digital payments aggressively. INDIA must share this technology with fellow countries to earn additional forex and enhance its soft power across the globe. Further, producing smartphones at a nominal rate inside INDIA will help UPI to Reach its height as smartphones are the real backbone for the success of UPI. Recently, the government has also come Up with a national cybercrime reporting portal to register grievances through which online fraud can be trapped better. Moreover, NPCI and RBI are working together to attain global reach with UPI to provide secure payment infrastructure for cross-border shoppers and travel. This UPI global through NIPL will stipulate a way in exploring international Business propositions and afford a streamlined use of UPI in the international market. Thus, the

future of UPI looks Promising, both in terms of its continued growth within INDIA and its potential for expansion to other countries.

2.2.13. Dudu, Alao, and Alonge (2024) in their study explore how digital payment platforms are advancing financial inclusion in emerging markets. Their study have highlighted the critical role of digital payment technologies in addressing the challenges of traditional banking systems, including accessibility, affordability, and security. The rapid adoption of mobile payments, e-wallets, and digital financial services can bridge the gap between the unbanked and formal financial institutions, enabling individuals to participate in the economy more actively.

The transformative potential of digital payment platforms is further amplified by innovations such as blockchain and decentralized finance (DeFi). These technologies reduce transaction costs and enhance transparency and accessibility, allowing individuals to engage in financial activities without the barriers typically associated with traditional banking. Additionally, the growing trend of social impact investments underscores the importance of collaboration among stakeholders—governments, private sector players, and non-governmental organizations—to drive meaningful change in financial inclusion efforts. By pooling resources and expertise, these stakeholders can design and implement solutions that cater to the unique needs of diverse communities.

They emphasized that the landscape of digital payments is rapidly evolving, and stakeholders must remain committed to exploring new technologies and approaches to enhance financial inclusion. Investment in infrastructure, digital literacy, and regulatory frameworks will be crucial to ensure that all individuals can access and benefit from digital financial services. Moreover, as the global economy shifts toward

a more digital and interconnected future, ensuring that underserved populations are included in this transformation will be essential for sustainable development.

2.2.14. Rawat and Suri (2023) examine the role of digital platforms in improving the lives of vegetable vendors in Dehradun city, particularly in relation to the cashless payment mode in the unorganized sector. The study focuses on all the street vegetable vendors who are accepting digital payments and found out that the majority of them i.e., 92% of the respondents have adopted digital payment modes due to customer influence.

The study reveals that digital payment has impacted the street vendors in a positive way. The study found out that the major advantages of digital payments are easy to transfer to bank accounts, time-saving, solved the problem of availability of change and has increased digital financial inclusion. Some of the vegetable vendors faced initial difficulty in using these payment methods due to their lower literacy levels and digital illiteracy. However, the majorities of the surveyed vegetable street vendors were satisfied with these digital payment modes and considered them a boon for their business.

2.2.15. Fahad and Shahid (2022) explore the determinants of adoption of Unified Payment Interface (UPI) in India, using the diffusion of innovation theory. The study is based on diffusion of innovation theory. The primary determinants of UPI adoption relative advantage, complexity, and observability have a significant positive correlation with users' intention to use UPI, while compatibility and trialability have no significant association with intention to use UPI. Additionally, higher intention to use and satisfaction correlate positively with existing users' recommendations of UPI.

The study model provides insights into the ways in which various facets of UPI impact usage and recommendation intentions.

2.2.16. Sahu, Sahu, and Patra (2023) conduct an empirical study of the Unified Payment Interface (UPI) in the Indian digital payment system. The Study has provided a broad picture of the contactless payment environment, drawing insights gained and addressing challenges and possibilities for the Indian mobile payments ecosystem in order to propel this vibrant and valued sector. The turnaround of UPI can be attributed to several transformative challenges, such as the existence of a resilient infrastructure, evolving customer expectations, proactive government measures, and technological advancements. In pursuit of enhanced financial literacy, the future may witness a realignment of the duties of ecosystem participants and a consolidation of market participants.

2.2.17. Velmathi (2019) explores digital payment awareness among small-scale vendors in Tirupur city. The study has found that people are having some illusions regarding digital payment and should be removed from their minds by bank people which was major factor people are not adopting these services. Thus, on-site training like demonstration can be provided to the bank customers who intend to use e-banking services.

2.2.18. Kamalasaravanan and Aishwariya (2022) examine the usage of UPI payment services towards merchants in Madurai. In this study it is found that the awareness of UPI payments services among merchants is very high in urban areas than in rural areas, so it must be made available in every area. Merchants are very much satisfied by UPI services and the security system can be strengthened to avoid

cyber threats in the future. Merchants must improve awareness in legislative measures which will be more useful to them. In future, number of young entrepreneurs can be increased by encouraging them in entrepreneurship. Women entrepreneurs must be guided and encouraged highly to do well in entrepreneurship. As digital transactions in increasing, it is becoming a monopoly market. So, the government is keeping on check in monopoly risks and some UPI apps has brought limitation in transactions, also charging fees for transactions when the prescribed limit is exceeded.

2.2.19. Khando, Islam, and Gao (2023) discuss the emerging technologies of digital payments and the associated challenges in their systematic literature review. This study puts forward the state-of-the-art classification of digital payment technologies and presents four categories of digital payment technologies: card payment, e-payment, mobile payment and crypto currencies. This paper presents the key challenges in digital payment technologies categorized into broad themes: social, economic, technical, awareness and legal. The classification and categorization of payment technologies and associated challenges can be useful to both researchers and practitioners to understand, elucidate and develop a coherent digital payment strategy.

Chapter 3

Overview of UPI

3.1 Introduction

UPI (Unified Payments Interface) is an innovative digital payment system that allows people to send and receive money instantly using their mobile phones, regardless of which bank they have an account with. UPI enables users to send / receive money and make person to person (P2P) or person to merchant (P2M) payments instantly through a Virtual Payment Address (VPA), mobile number or by scanning a Quick Response (QR) code. (NPCI, 2025)

Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the “Peer to Peer” collect request which can be scheduled and paid as per requirement and convenience (NPCI, 2025).⁵

UPI is now one of the most preferred payment solutions in India, with over 16 billion transactions every month. In (Calendar Year) CY-2024, UPI recorded 17,220.80 crore transactions with a total value of ₹246.83 lakh crore (RBI, 2024).⁶

⁵ <https://www.npci.org.in/what-we-do/upi/product-overview>

⁶ <https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/PSR270120251BEE95CF47F2426B9740075D405FA070.PDF>

UPI has not only made financial transactions fast, secure, and effortless, but it has also empowered individuals, small businesses, and merchants, driving the country's shift toward a cashless economy. This remarkable achievement highlights India's commitment to leveraging technology for inclusive growth and economic progress (PIB, 2024).⁷

3.1.1 History of UPI

The Unified Payments Interface (UPI) has significantly transformed the digital payments landscape in India since its inception. The journey of UPI began with the establishment of the National Payments Corporation of India (NPCI) in 2008, which was tasked with overseeing the development and implementation of various payment systems, including UPI. The groundwork for UPI was laid following recommendations from a report that called for a unified payment platform to enhance the efficiency of transactions in India. (Mohammed, 2025)

The enhancements introduced since the launch of UPI in 2016 are discussed below chronologically: (**Figure 3.1** shows UPI and its enhancements – timeline)

- (i) In 2018, enhancements were introduced to give an impetus to digital payments. These included increasing the per transaction limit to ₹2.0 lakh, allowing mandates with fund blocking, accepting overdraft accounts as funding account, processing domestic leg of foreign inward remittance, and incorporating State Cooperative Banks (StCBs) and District Central Cooperative Banks (DCCBs) as issuers through sub-membership. [2017-18].

⁷ <https://pib.gov.in/PressReleasePage.aspx?PRID=2079544>

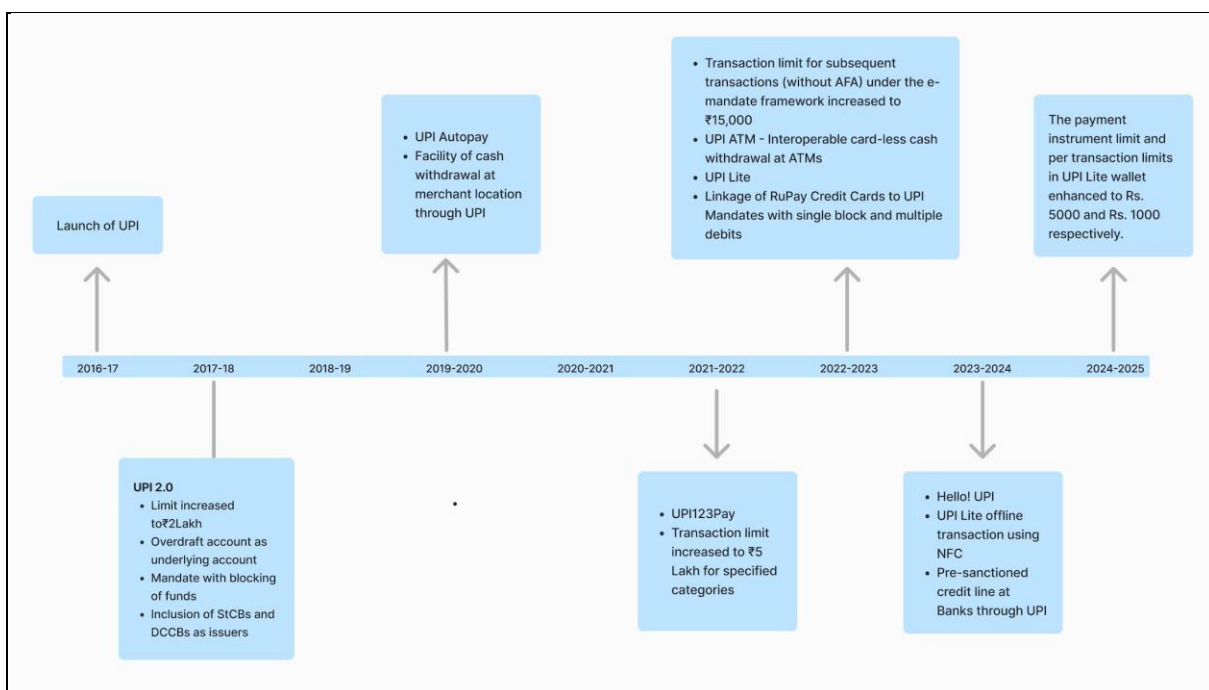


Figure 3.1: UPI and its enhancements – timeline

(Source: RBI Payment Systems Report, Dec. 2024)

- (ii) In August 2019, a framework was established to enable e-mandates on cards and Prepaid Payment Instruments (PPIs) for digitizing recurring payments. This framework, which includes safety measures like Additional Factor of Authentication during e-mandate registration, modification and revocation as well as first transaction and simple / automatic subsequent successive transaction, was later extended to cover UPI-based transactions in January 2020 (UPI Autopay). Similarly, the facility of cash withdrawal at merchant locations was also extended to UPI. [2019-20]
- (iii) **UPI for Feature Phones – UPI123Pay:** It was introduced to onboard over 40 crore feature phone users to digital payments by availing UPI features. It

provides options like IVR, missed call, app-based functionality, and proximity sound-based payments to facilitate seamless digital transactions. [2021-22]

- (iv) **Increase in UPI Transaction Limit for Specified Categories:** The UPI transaction limit was raised from ₹2 lakh to ₹5 lakh to promote increased participation of retail customers in financial markets, including investments in G-secs through the Retail Direct Scheme and payments for Initial Public Offerings (IPOs) [2021-22]
- (v) **Processing of e-Mandates for Recurring Transactions:** The per transaction limit for subsequent transactions (without Additional Factor of Authentication) undertaken under the e-mandate framework for processing of recurring transactions done using cards, PPIs and UPI was enhanced from ₹5,000/- to ₹15,000/- per transaction. [2022-23]
- (vi) **Interoperable Card-less Cash Withdrawal (ICCW) at ATMs – UPI ATM-ICCW** enables bank's customers to withdraw funds from any enabled ATM without a card. Under this facility, UPI is used for customer authentication during ICCW transactions at ATM with the settlement facilitated through the National Financial Switch (NFS) / ATM networks. [2022-23]
- (vii) **UPI Lite 'On-device Wallet':** Small value transactions in UPI through an on-device wallet in UPI App were permitted to facilitate safe and secure payments, wherein users can transfer a maximum of ₹2,000 to UPI Lite, with the wallet subsequently debited for transaction of up to ₹200, provided sufficient balance is available. [2022-23]
- (viii) **Linking of Rupay Credit Cards to UPI:** RuPay credit cards were allowed to be linked to UPI, expanding the range of financial products for payment

processing and providing additional convenience for customers on the UPI platform. [2022-23]

- (ix) **Hello! UPI:** An innovative payment mode viz. ‘Conversational Payments’ was enabled on UPI, which enables users to engage in a conversation with an AI-powered system to initiate and complete transactions in a safe and secure environment. This channel is made available in both smartphones and feature phones-based UPI channels, thereby helping in the deepening of digital penetration in the country. [2023-24]
- (x) **UPI Lite X:** To promote the use of UPI-Lite, offline transaction using Near Field Communication (NFC) technology, called UPI Lite X, was also enabled. This feature not only allows retail digital payments in situations where internet / telecom connectivity is weak or not available, but also ensures faster transactions, with minimal declines. [2023-24]
- (xi) The scope of UPI was expanded by enabling transfer to / from pre-sanctioned credit lines at banks (subsequently extended to Small Finance banks), in addition to deposit accounts. In other words, UPI network will facilitate payments financed by credit from banks. This can reduce the cost of such offerings and help in development of unique products for Indian markets. [2023-24]
- (xii) **Enhancement in limits for UPI Lite:** Given the increasing levels of average ticket size for P2P and P2M transactions and also to support banks’ CBS load management, the UPI Lite wallet’s overall limit and per transaction limit were enhanced to ₹5,000 and ₹1,000 respectively. [2024-25] (RBI, 2024)

3.1.2 Launch of UPI

UPI was officially launched on April 11, 2016, as a real-time payment system designed to facilitate instant money transfers between bank accounts using mobile devices. This innovative platform aimed to eliminate the cumbersome process of traditional payments, which often required intricate details like bank account numbers and IFSC codes. UPI allowed users to link their bank accounts to a unique virtual payment address (VPA), streamlining the transaction process significantly. (Mohammed, 2025)

3.1.3 Early Adoption and Development

The initial version of UPI was developed in collaboration with the Reserve Bank of India (RBI) and various banks, marking the start of a digital-first era in Indian banking. The pilot project commenced with 21 member banks, setting the stage for rapid adoption across the nation. The subsequent growth of UPI was characterized by its integration with other services such as e-commerce, transportation, and government services, thereby enhancing the user experience and expanding its functionality (Mohammed, 2025).⁸

3.1.4 How UPI is unique?

UPI has transformed digital payments in India with its unparalleled ease, security, and versatility. By enabling round-the-clock transactions and offering features like single-click payments and virtual addresses, it ensures both convenience

⁸ Mohammed, S. A. (2025). Revolution of QR code UPI payment option: A study. *International Journal of Development Research*, 14(12)

and privacy for users. Its ability to integrate multiple banking services into one app makes it a game-changer in financial technology.⁹(PIB, 2024)

Here are a few reasons why UPI stands out:

- (i) **Round-the-Clock Accessibility:** Immediate money transfer through mobile device round the clock 24*7 and 365 days.
- (ii) **Unified Banking Access:** Allows users to access multiple bank accounts using a single mobile application.
- (iii) **Seamless and Secure Payments:** Single Click 2 Factor Authentication – Aligned with the Regulatory guidelines, yet provides for a very strong feature of seamless single click payment.
- (iv) **Enhanced Privacy:** Virtual address of the customer for Pull & Push provides for incremental security with the customer not required to enter the details such as Card no, Account number; IFSC etc.
- (v) **QR Code Integration:** Facilitates easy payments through QR code scanning, supporting quick and secure transactions.
- (vi) **Cash-On-Delivery Alternative:** Simplifies transactions by replacing the hassle of cash payments or exact change during deliveries.
- (vii) **Merchant and In-App Payments:** Supports payments for merchants via a single application or directly within apps.
- (viii) **Diverse Payment Options:** Covers utility bill payments, over-the-counter transactions, and QR Code (scan-and-pay) based payments.

⁹ <https://pib.gov.in/PressReleasePage.aspx?PRID=2079544>

- (ix) **Flexibility in Transactions:** Enables donations, collections, disbursements, and more with ease.
- (x) **Customer Support:** Allows users to raise complaints directly from the mobile application. (PBI, 2024)

3.1.5 Definitions

- (i) **PSP – Payment Service Provider** is banking company that is a member of UPI and connects to the UPI platform for providing UPI payment facility to the PSP and TPAP which in turn enables the Users and merchants to complete payment transactions over UPI.
- (ii) **TPAP- Third-Party Application Provider** is an entity that provides UPI-compliant applications to users, facilitating UPI-based transactions, such as Google Pay, PhonePe, and Amazon Pay.
- (iii) **PPIs- Prepaid Payment Instruments** is a payment method, like a digital wallet or prepaid card, where users store funds in advance to purchase goods and services, send/receive money, and conduct financial transactions
- (iv) **Remitter Bank-** A bank holding a bank account of the Payer where the Debit of the UPI instruction is received from the Payer to be executed on real time basis .(NPCI, 2025) , (Google,2025)

3.1.6 Participants in the UPI ecosystem

- (i) **NPCI (National Payments Corporation of India)**

NPCI is the owner, network operator, service provider, and coordinator of the UPI Network.

(ii) Banks

Banks and payment banks with an RBI-approved mobile banking license and IMPS capability are eligible for UPI. Banks or PPIs should broadly perform the functions/roles mentioned below:

(a) Payer PSP –

Member bank as a Payer PSP can onboard a customer into a UPI app, allowing the customer to register for UPI services and provide options to approve a financial transaction or non-financial request wherever necessary.

(b) Payee PSP - A bank in the role of Payee PSP can onboard a customer/merchant to receive money or raise a collect request. This is also known as a beneficiary/resolving PSP.

(c) Remitter Bank - All UPI users need to have a banking account with a UPI enabled bank. While performing a transaction, the user's bank account will be debited. The remitting bank also holds the responsibility of authenticating the UPI PIN set by the customer.

(d) Beneficiary Bank - Any credit going to a UPI user will be credited to a beneficiary's bank account. The bank receiving the funds in UPI transactions will be acting as a beneficiary bank.

(iii) Bank Account holders / Customers

Any customer who is on-boarded by a bank with a UPI enabled account and a UPI ID can utilise the services.

(iv) Merchants

Participating merchants are those who are on-boarded by their banks to accept UPI enabled payments from customers.

(v) **Corporates**

UPI also provides the ability for large technology companies, 3rd party processors, and aggregators to connect to banks and provide extensive services to end consumers. (NPCI, 2025) (Google, 2025)

3.1.7 UPI - Benefits to the Ecosystem participants (NPCI, 2025)

(i) **Banks:**

- Single click Two Factor authentication
- Universal Application for transaction
- Leveraging existing infrastructure
- Safer, Secured and Innovative
- Payment basis Single/ Unique Identifier
- Enable seamless merchant transactions

(ii) **Customers:**

- Round the clock availability
- Single Application for accessing different bank accounts
- Use of Virtual ID is more secure, no credential sharing
- Single click authentication
- Raise Complaint from Mobile App directly

(iii) **Merchants:**

- Seamless fund collection from customers - single identifiers
- No risk of storing customer's virtual address like in Cards
- Tap customers not having credit/debit cards
- Suitable for e-Com & m-Com transaction

- Resolves the COD (Cash on Delivery) collection problem
- Single click 2FA facility to the customer - seamless Pull
- In-App Payments (IAP) (NPCI, 2025)

3.2 Impact of UPI

UPI has had a profound impact on small businesses, street vendors, and migrant workers, offering them an easy and efficient way to transfer money and receive payments. Its adoption was particularly accelerated during the Covid-19 pandemic, as people sought safer, contactless alternatives to cash transactions. UPI's success, however, extends beyond the strength of its infrastructure; it also stems from the behavioural shift it has inspired, where trust in the system and its accessibility have been key factors in driving widespread use.

One of the small yet significant innovations that facilitated this shift is the use of voice boxes by payment apps. These devices, commonly found at snack carts and tea stalls, announce the amount of money received with each QR code transaction, ensuring that vendors who are often too busy to check phone messages are aware of their earnings. This simple yet effective feature has played a crucial role in gaining the trust of small merchants who were previously accustomed to cash transactions and wary of digital payments.(PIB, 2024)

Another important design feature of UPI is its provision for users to choose their preferred payment apps, regardless of the bank where their account is held. This flexibility has given consumers the power of choice, making it easier for them to embrace UPI as their go-to payment method.

The integration of RuPay credit cards with UPI marks another revolutionary step in the digital payment landscape. This feature allows users to access the benefits of both

credit cards and UPI for transactions, enabling them to make payments through their credit lines instead of drawing from savings accounts. (PIB, 2024)

3.3 The growth of UPI payments

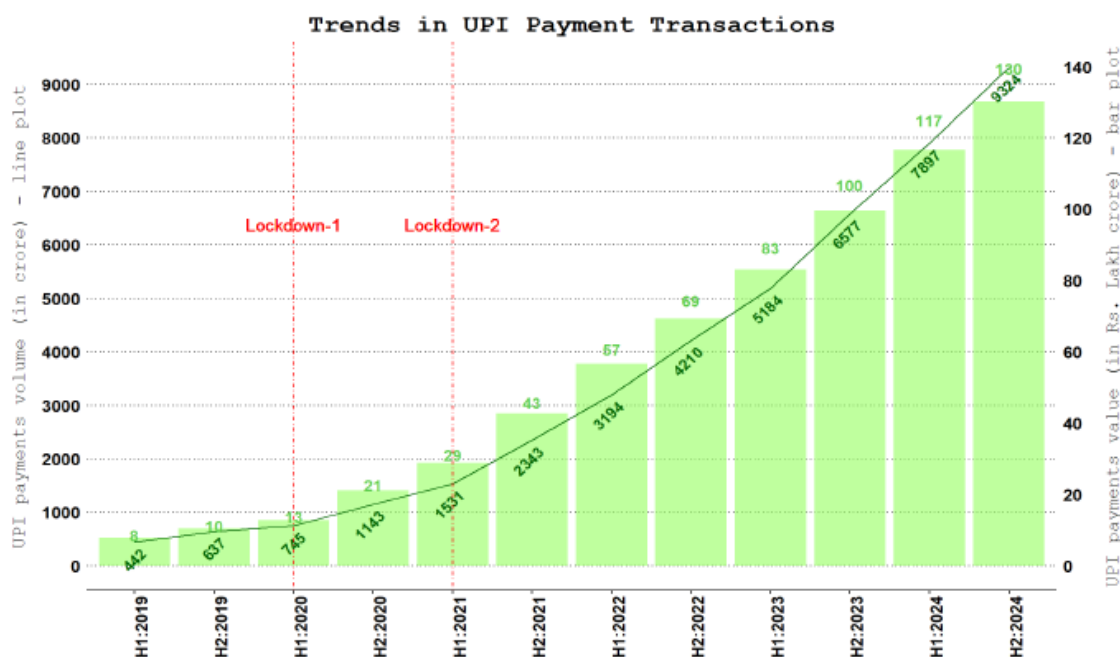


Figure 3.2 -Trends in UPI Payment Transactions

(H1- First Half Year, H2- Second Half Year)

(Source: RBI Payment Systems Report, Dec. 2024)

Growth of UPI payment transaction is depicted as above **Figure 3.2**. Over the past five years, India's Unified Payments Interface (UPI) has experienced a meteoric rise, fundamentally reshaping the landscape of digital transactions in the country. (RBI, 2024)

UPI has been the most significant contributor to the growth of digital payments in India. Its contribution to digital payments volume surged from 34% in CY-2019 to an impressive 83% in CY-2024, with a remarkable CAGR of 74% over five years. In contrast, share of other payment systems like RTGS, NEFT, IMPS, credit cards, debit

cards, etc. in digital payments volume declined from 66% to 17% during the same period. The growth in share of UPI transactions is depicted in **Figure 3.3** below.

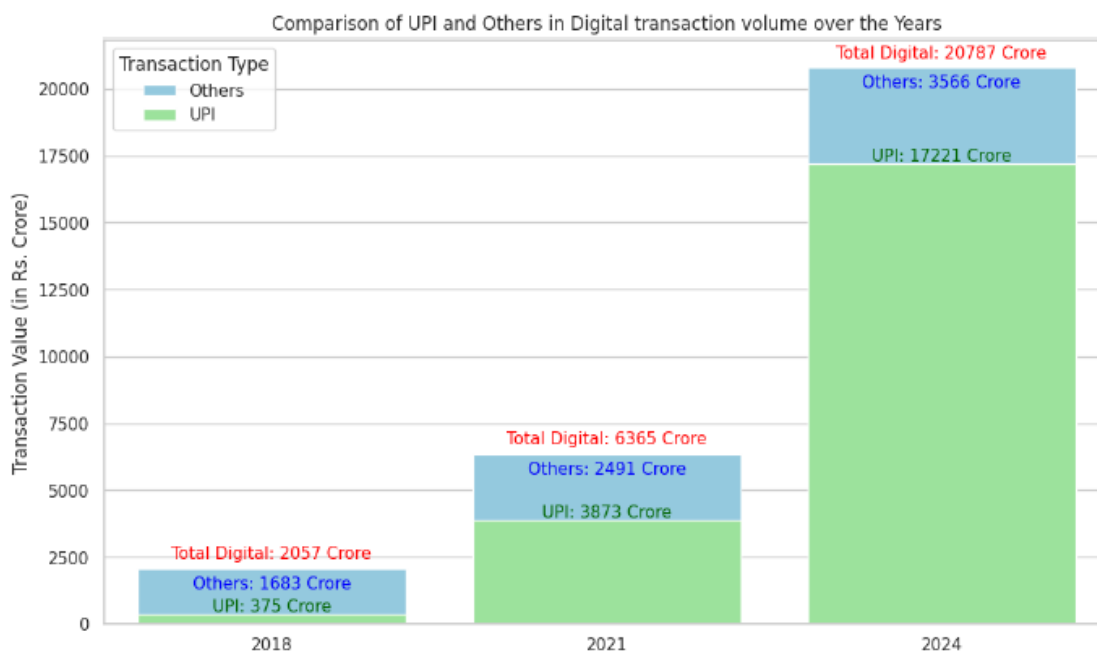


Figure 3.3: Comparison of UPI and other payment systems in Digital transaction volume over the years

(Source: RBI Payment Systems Report, Dec. 2024)

At a macro level, the volume of UPI transactions increased from 375 crore in CY-2018 to 17,221 crore in CY-2024, whereas the total value of transactions surged from ₹5.86 lakh crore in CY-2018 to ₹246.83 lakh crore in CY-2024. This amounts to five year compounded annual growth rate (CAGR) of 89.3 per cent and 86.5 per cent in terms of volume and value, respectively. (RBI, 2024)

3.4 Comparative Analysis of P2P and P2M Transactions

Definitions

(i) **P2P (Person to Person or Peer to peer)**

P2P transactions mean transferring an amount between two individuals or individual accounts through UPI

(ii) **P2M (Person to Merchant or peer to Merchant)**

P2M transaction is where customers make payments through UPI to merchants for purchases)

Both P2P and P2M transactions leverage UPI's secure and real-time payment capabilities, making it easier for individuals and businesses to execute financial transactions without relying on traditional, time-consuming methods. The growth trajectories of UPI P2P and P2M transactions have a lot of similarities as well as differentiating factors, as can be seen from **Figure 3.4**.

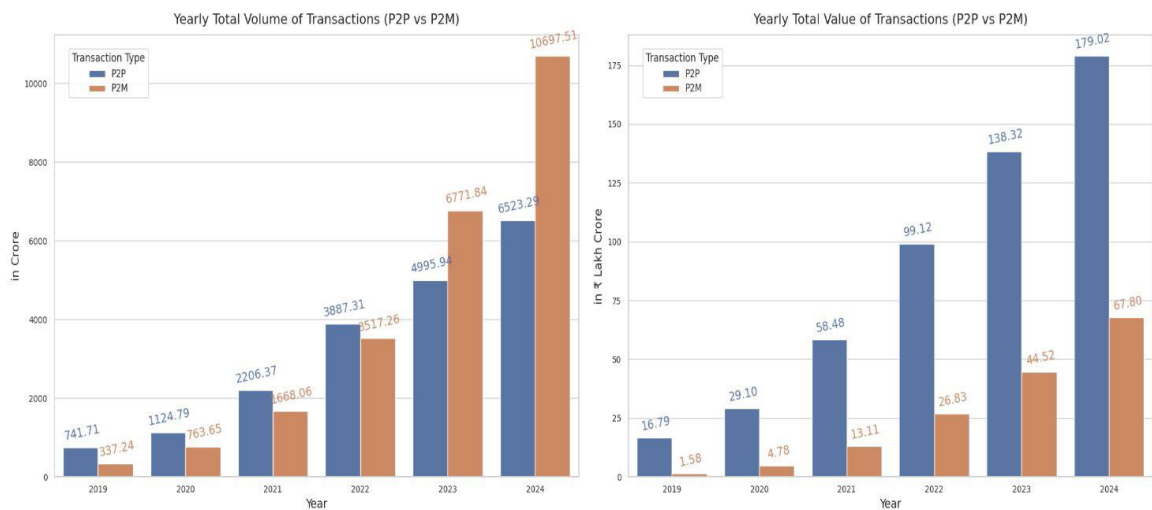


Figure 3.4: Growth trajectories of UPI P2P and P2M transactions

(Source: RBI Payment Systems Report, Dec. 2024)

It can be inferred from **Figure 3.4** that the UPI P2M transaction volume has surpassed the UPI P2P transaction volumes since 2023. However, in value terms, the UPI P2P transaction value is still higher than UPI P2M transaction values.

Further, the distribution of UPI transactions for P2P and P2M value bucket-wise, shows that the P2M transactions grew at the faster rate than P2P in terms of volume and there is variation in the growth across various bucket size (**Table 3.1**). (RBI, 2024)

Table 3.1 – CAGR of UPI transactions for P2P and P2M transactions bucket-wise

CAGR (CY-2019 to CY-2024)	UPI P2P (below ₹500)	UPI P2P (₹500 to ₹2000)	UPI P2P (above ₹2000)	UPI P2M (below ₹500)	UPI P2M (₹500 to ₹2000)	UPI P2M (above ₹2000)
Volume	56%	49%	57%	99%	101%	109%
Value	56%	44%	63%	92%	102%	123%

(Source: RBI Payment System Report, Dec. 2024)

3.5 Scope of UPI

The scope of the Unified Payments Interface (UPI) in India is vast and encompasses a wide range of opportunities and possibilities, reflecting its potential to reshape the country's financial landscape and drive digital transformation. UPI has transcended its initial purpose as a simple person-to-person payment system to become a multifaceted platform with far reaching implications. (Agarwal & Das, 2024)

(i) Financial Inclusion: One of the key scopes of UPI lies in its ability to advance financial inclusion. By providing a user-friendly and interoperable platform, UPI empowers individuals who were previously excluded from formal banking systems to access and participate in digital transactions. This inclusivity is

crucial for bridging the urban-rural divide and ensuring equitable economic growth.

- (ii) **Micro and Small Businesses:** UPI's scope extends to micro and small businesses, enabling them to embrace digital payments and offer their customers a convenient and seamless transaction experience. With the rise of digital wallets and QR code payments, even small vendors and merchants can easily accept payments, reducing their dependency on cash.
- (iii) **E-commerce and Retail:** UPI has the potential to revolutionize the e-commerce and retail sectors. It provides a secure and efficient payment gateway for online shoppers, facilitating quick and hassle-free transactions. As online shopping continues to grow, UPI is positioned to play a pivotal role in shaping the future of retail payments.
- (iv) **Fintech Innovation:** The open architecture of UPI has created a fertile ground for fintech innovation. Entrepreneurs and startups have leveraged UPI's capabilities to develop a myriad of applications, ranging from digital lending platforms to investment tools. This scope for innovation not only enhances user experience but also stimulates economic growth.
- (v) **Government Services and Subsidies:** UPI's scope extends to government services and subsidy disbursements. By integrating UPI with welfare programs, the government can directly transfer funds to beneficiaries' bank accounts, reducing leakages and ensuring that subsidies reach the intended recipients efficiently.
- (vi) **International Remittances:** UPI's scope could potentially expand to international remittances, providing a cost-effective and swift mechanism for Indians living abroad to send money back home. This has the potential to

enhance cross-border financial transactions and contribute to foreign exchange inflows.

(vii) Digital Literacy and Awareness: UPI's scope also includes initiatives aimed at promoting digital literacy and awareness. As UPI becomes more ingrained in everyday transactions, educating users about its benefits, security measures, and best practices becomes essential.

(viii) Policy and Regulatory Framework: The scope of UPI extends to policy and regulation. Policymakers have the opportunity to create an enabling environment that fosters UPI's growth while ensuring consumer protection, data privacy, and cyber security. (Agarwal & Das, 2024)

In conclusion, the scope of UPI in India is vast and multi-dimensional, ranging from financial inclusion to Fintech innovation and from e-commerce to government services. UPI's transformative potential lies in its ability to create a robust and inclusive digital payment ecosystem that empowers individuals, businesses, and the economy at large. As India continues on its journey towards a digital future, UPI is poised to play a pivotal role in shaping the way financial transactions are conducted and paving the way for a technologically advanced and financially inclusive society (Agarwal & Das, 2024).

3.6 UPI's Global Expansion

India's digital payments revolution is gaining international momentum, with both UPI and RuPay expanding rapidly across borders. Currently, UPI is operational in seven countries, including key markets like the UAE, Singapore, Bhutan, Nepal, Sri Lanka, France, and Mauritius (PIB, 2024). Same has been depicted in **Figure:3.5**



Figure 3.5:- UPI's Global Expansion

(Source: PIB, 2024)

UPI's entry into France is particularly significant, marking its first foray into Europe. This expansion enables Indian consumers and businesses to make and receive payments seamlessly, even while living or traveling abroad.

As part of its global outreach, Prime Minister Modi has actively pitched for UPI's expansion within the BRICS grouping, which now includes six new member states. This initiative is expected to further bolster remittance flows, improve financial inclusion, and enhance India's stature in the global financial landscape.

According to the ACI Worldwide Report 2024, India now accounts for around 49% of global real-time payment transactions as of 2023, underscoring India's leadership in digital payment innovation. With UPI's growing international presence and the continued rise of digital transactions, India is setting new global benchmarks for financial inclusion and economic empowerment. (PIB, 2024)

3.7 Conclusion

UPI has not only revolutionized the way India conducts financial transactions but has also positioned the country as a global leader in digital payments. By offering a seamless, secure, and accessible platform for both individuals and businesses, UPI has played a pivotal role in promoting financial inclusion and accelerating the nation's shift towards a cashless economy. Its remarkable growth, both in terms of transaction volumes and geographical reach, highlights its transformative impact on the financial landscape. As UPI continues to expand globally, it is setting new standards for digital payments, empowering citizens, enhancing economic opportunities, and contributing to India's increasing influence in the global financial arena. (PIB, 2024)

Chapter 4

UPI and Financial Inclusion

4.1. Financial Inclusion

The process of ensuring that people and businesses have access to a broad range of suitable and affordable financial services and products, such as banking, savings, credit, insurance, and payment systems, is known as financial inclusion. Through empowering marginalized or underserved communities to fully participate in the official financial system, save, invest, and defend themselves against financial hazards, it seeks to advance economic stability. As it enables people and businesses to more effectively manage their finances, build wealth, and access possibilities for economic advancement, financial inclusion is frequently considered as a critical component in supporting social development, decreasing poverty, and fostering economic growth.(Mahamad, 2023)

4.2. Importance of Financial Inclusion In the modern Economy:

(i) Economic Development and Stability:

By directing savings into expenditures, financial inclusion promotes economic growth by sparking business activity and employment creation. A society that has access to adequate financial resources is more likely to engage in entrepreneurial endeavors and support the economy as a whole. Increased financial service accessibility also contributes to economic stability by minimizing dependency on unreliable, uncontrolled financial institutions.

(ii) Lowering poverty rates:

It is one of the main objectives of financial inclusion. People can more effectively handle their money, build assets, and deal with unforeseen financial difficulties when they have access to savings accounts, credit, and insurance. This gives people and households the ability to escape poverty and create a more secure future.

(iii) Capital access:

The ability to obtain money is essential for the growth and success of small and medium-sized businesses (SMEs), which are frequently seen as the foundation of many economies. Financial inclusion makes it easier for these companies to get financing, which enables them to grow, produce jobs, and support economic growth.

(iv) Digital transformation:

Financial stability has a strong connection with technology breakthroughs in the age of the internet. Financial products and services have been more readily available for isolated and under privileged places thanks to the democratization of the industry through mobile banking, digital wallets, and online payment systems. Additionally encouraging innovation and efficacy in financial institutions is this digital change. (Mahamad, 2023)

4.3. Key components of financial Inclusion:

Key components of financial inclusion are described as below:

(i) Access to bank Services:

This part is making sure that consumers and companies can easily obtain fundamental banking offerings, such savings and checking accounts, from reputable financial organizations like banks and credit unions. People who have

access to these services can start their financial journeys, conduct transactions, and save the funds at a secure location.

(ii) Availability of credit and saving facilities:

Making credit and deposit services available to a large number of people, especially those who were previously excluded or less fortunate, is another aspect of achieving financial inclusion. People who have access to credit can use it to finance their emergency costs, start or grow their businesses, or spend on learning. On the other side, savings accounts promote consistent saving, assisting people in developing their financial independence and achieving their financial objectives.

(iii) Insurance and risk management services:

Financial inclusion depends on insurance options including life insurance, health insurance, and crop insurance. They reduce financial risk by acting as a safety net against unanticipated events. Exposure to risk management programs enables individuals and societies to lessen the effects of illnesses, injuries, or emergencies, protecting their ability to pay.

(iv) Payment and fund transfer mechanisms:

Financial inclusion depends on effective and open mechanisms of payment. The accessibility of various payment options, such as mobile money, e-wallets, and digital money transfers, falls under this component. Even in isolated or underprivileged places, people may exchange cash, settle their bills, and carry out transactions easily and securely thanks to these systems. (Mahamad, 2023)

4.4. Financial Inclusion and the SDGs

Financial inclusion is positioned prominently as an enabler of other developmental goals in the 2030 Sustainable Development Goals, where it is featured as a target in eight of the seventeen goals. These include SDG1, on eradicating poverty; SDG 2 on ending hunger, achieving food security and promoting sustainable agriculture; SDG 3 on profiting health and well-being; SDG 5 on achieving gender equality and economic empowerment of women; SDG 8 on promoting economic growth and jobs; SDG 9 on supporting industry, innovation, and infrastructure; and SDG 10 on reducing inequality. Additionally, in SDG 17 on strengthening the means of implementation there is an implicit role for greater financial inclusion through greater savings mobilization for investment and consumption that can spur growth.

There is academic evidence that financial inclusion models can support overall economic growth and the achievement of broader development goals. Digital finance alone could benefit billions of people by spurring inclusive growth that adds \$3.7 trillion to the GDP of emerging economies within a decade, according to a recent report by the McKinsey Global Institute. The results of a long-term impact study on a mobile money service in Kenya, M-PESA, found mobile money has lifted as many as 194,000 households – 2% of the Kenyan population – out of poverty, and has been effective in improving the economic lives of poor women and of members of female-headed households. There is also growing evidence of financial inclusion creating more stable financial systems and economies, mobilizing domestic resources through national savings and helping to boost government revenue.

UNCDF's last mile financing models support banks, cooperatives, microfinance institutions, money transfer companies and mobile network operators to extend the

reach of financial markets where they would otherwise not go. UNCDF ensures that suitable financial products (savings, credit, insurance, payments, and remittances) are available to individuals – notably the excluded and underbanked – and micro, small, and medium enterprises, at a reasonable cost, and on a sustainable basis. In particular, UNCDF targets women based on the growing evidence that access to savings leads to positive economic outcomes for women, including increasing productivity and profits and greater investment in their businesses. Having savings also makes women less likely to sell assets to address health emergencies, stabilizes their incomes in times of economic shocks, and provides greater control over their funds. (United Nations Capital Development Fund , n.d.)¹⁰

4.5. Financial Inclusion in India through Digital Banking and Unified Payments

Interface (UPI) System:

The adoption of fintech technologies powered by artificial intelligence, machine learning, data analysis, process automation, and blockchain has changed the financial world. These advances empower fintech to drive vast measures of information through calculations designed to distinguish patterns and risks, counterfeit practices, spam information, and suggest corrective actions or actions. Fintech organizations use these innovations to help organizations manage and control activities such as managing and controlling their finances, meeting tax compliance, paying and accepting bills, and using other financial administrations as needed. (Mankar, n.d.)

The Reserve Bank of India has adopted a bank-led model to achieve financial inclusion and removed all regulatory hurdles in achieving greater financial inclusion in the country. In addition, to achieve the stated objectives, RBI has created a conducive regulatory environment and provided institutional support to banks to

¹⁰ <https://www.uncdf.org/financial-inclusion-and-the-sdgs>

accelerate their financial inclusion efforts. Advised all banks to open Basic Savings Bank Deposit (BSBD) accounts with minimum common facilities like; No minimum balance, Cash deposit, withdrawal at the bank branches and ATMs, Receipt and receipt of money through an electronic payment system, and ATM card facility. KYC norms are relaxed and simplified to facilitate easy opening of bank accounts, especially for small accounts whose balance does not exceed Rs 50,000 and total credit in accounts of Rs 1 lakh per annum would not exceed.

In recent years, India has made rapid progress in promoting financial inclusion catalyzed by the Pradhan Mantri Jan Dhan Yojana (PMJDY) and India Stack. However, access to credit remains a policy challenge, especially for the country's 63 million MSMEs (Micro, Small and Medium Enterprises). Financial inclusion has been further fueled by the Unified Payments Interface (UPI), which has been widely adopted. UPI recorded over 16996 million transactions volume worth Rs 23,48,037.12 Crore in January 2025.

The UPI system has presented itself as a catalyst to take forward the Prime Minister's dream of Digital India and turn it into a cashless economy. FIs extended micro-credit facilities to street vendors through apps like PM-Kisan, Direct Benefit Transfer (DBT), and PMSVANIDHI. India is close to operating its own 'open banking structure'. (Mankar, n.d.)

4.6. Financial inclusion of street vendors in India

The World Bank has identified financial inclusion as one of the primary goals for achieving universal financial access by the end of 2020. The Government of India (GoI) launched a national-level financial inclusion initiative known as the Pradhan Mantri Jan Dhan Yojana (PMJDY) in 2016 to attain this goal. The most marginalized segments of the urban poor are characterized as street vendors. According to statistics,

there are approximately 5-6 million street sellers in India (Nandru et al 2021). PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) was the particular scheme announced by the Ministry of Housing and Urban Affairs, GoI, to financially empower street vendors in all aspects. According to the study's findings (Siwela and Njaya, 2018), SHGs and MFIs have played an essential role in addressing the credit demands of street sellers. However, even when the interest rate is relatively high, and no collateral is needed, most respondents approach informal lending sources such as money lenders. (Sundararaju & Theivanayaki, 2023)

Financial inclusion acts as a catalyst in strengthening poor people's financial capability. By incorporating people from various socio-economic backgrounds into formal banking policy, financial inclusion is recognized as a critical instrument for reducing vulnerability and distress (Chakrabarty, 2009). For their business activity and personal and emergency needs, street vendors rely primarily on informal sources of money. Factors such as education level, business type, and economic position have shown a strong association with levels of financial inclusion, although the age group did not have any impact (Khan and Bhandari, 2022). Khan and Bhandari (2013) determined the credit sources used to run and expand the enterprises of street vendors. They emphasized that due to a lack of formal institutional credit, most vendors receive necessary credit through informal sources such as moneylenders, wholesalers, and families and suggested that street sellers can be given proper training in business operations and skill upgrading, which will, directly and indirectly, assist them in accomplishing financial well-being. (Sundararaju & Theivanayaki, 2023)

4.7. PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi)

Ministry of Housing & Urban Affairs launched a scheme PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) to empower Street Vendors by not only

extending loans to them, but also for their holistic development and economic upliftment. The scheme intends to facilitate collateral free working capital loans of up to INR10,000/- of one-year tenure, to approximately 50 lakh street vendors, to help resume their businesses in the urban areas, including surrounding peri-urban/rural areas (National Portal of India, 2025) .¹¹

4.7.1. Eligibility Criteria

The PM SVANidhi scheme is available to all street vendors who are engaged in vending in urban areas as on or before March 24, 2020. The eligible vendors are identified as per following criteria:

- (i) Street vendors in possession of Certificate of Vending/Identity Card issued by Urban Local Bodies (ULBs)
- (ii) The vendors, who have been identified in the survey but have not been issued Certificate of Vending/Identity Card; Provisional Certificate of Vending would be generated for such vendors through an IT based Platform. ULBs are encouraged to issue such vendors the permanent Certificate of Vending and Identification Card immediately and positively within a period of one month
- (iii) Street Vendors, left out of the ULBled identification survey or who have started vending after completion of the survey and have been issued Letter of Recommendation (LoR) to that effect by the ULB/Town Vending Committee (TVC)
- (iv) The vendors of surrounding development/peri-urban/rural areas vending in the geographical limits of the ULBs and have been issued Letter of

¹¹ <https://www.india.gov.in/spotlight/pm-street-vendors-atmanirbhar-nidhi-pm-svanidhi>

Recommendation (LoR) to that effect by the ULB/TVC. (National Portal of India,2025)

4.7.2. Status of PM SVANidhi scheme in Delhi

PM SVANidhi Portal has shown following data of street vendors of Delhi in

Figure 4.1 as on 20 March 2025 ¹² :-

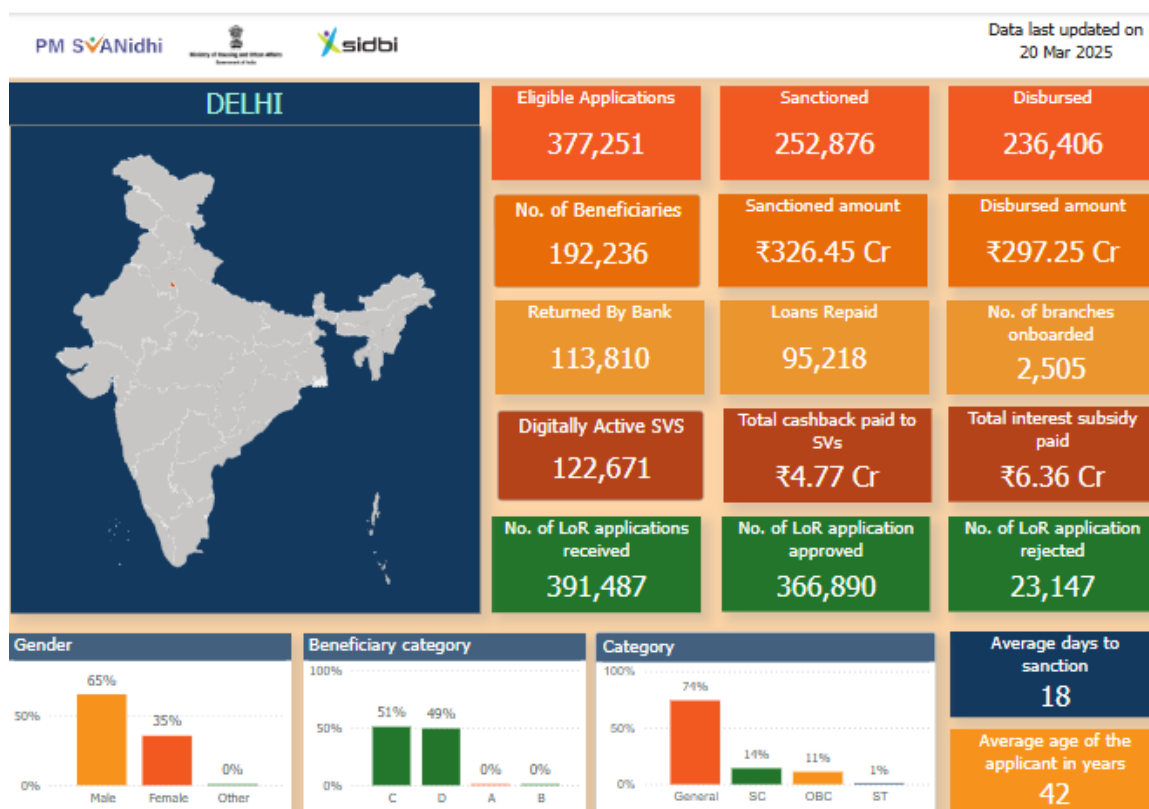


Figure 4.1:- Data of Street Vendors of Delhi under PM SVANidhi Scheme

(Source: PM SVANidhi Portal)

Details of PM SVANidhi Portal data w.r.t. street vendors of Delhi as on 20.03.2025 are mentioned as following:

¹² <https://pmsvanidhi.mohua.gov.in/Home/PMSDashboard>

- (i) **Total 3,77,251** eligible loan applications have been received and **total 2,52,876** loan applications have been sanctioned by banks.
- (ii) **Total 1,92,236** street vendors of Delhi have been benefitted in PM SVANidhi scheme . 65% beneficiaries are 35% beneficiaries are female.
- (iii) **Total ₹ 326.45 crore** have been sanctioned and **₹ 297.25 crore** have been disbursed.
- (iv) **Total 2,505** branches have been on boarded in this scheme.
- (v) **Total 95,218** beneficiaries have repaid their loan amount.
- (vi) It take average 18 days to sanction loan

4.7.3. Progress in Loan Application sanctioned under PM SVANidhi Scheme

Urban local bodies in Delhi have sanctioned 47,884 loans till 3 December 2021.¹³ As of 14 February 2024, total 3.05 lakh loan applications were received from the street vendors of Delhi, of which 2.2 lakh applications have been sanctioned by banks (PIB, 2024).¹⁴

Table 4.1 – No. of Loan Applications sanctioned by Banks in Delhi under PM SVANidhi Scheme

S.No.	Year	No. of Loan Applications sanctioned by Banks
1	3 December 2021	47,884
2	14 February 2024	2,20,000
3	20 March 2025	2,52,876

(Source: compiled from news papers , PIB and PM SVANidhi Portal)

It can be seen by above mentioned data that number of loan applications of street vendors of Delhi under PM SVANidhi Scheme has increased since its inception.

¹³ https://www.business-standard.com/article/economy-policy/urban-bodies-disburse-47-884-loans-in-delhi-under-pm-svanidhi-scheme-121120201524_1.html

¹⁴ <https://pib.gov.in/PressReleasePage.aspx?PRID=2006580>

4.8. Conclusion

Financial inclusion is crucial for economic growth and stability, reducing poverty, promoting entrepreneurship, and enhancing access to capital for small and medium enterprises. Technological advancements, especially through digital finance and the Unified Payments Interface (UPI) in India, have facilitated greater access to financial services. The chapter highlights initiatives such as the Pradhan Mantri Jan Dhan Yojana and PM Street Vendor's AtmaNirbhar Nidhi, which aim to assist underprivileged groups, especially street vendors, in obtaining credit and financial literacy. Evidence suggests that financial inclusion positively impacts social development and supports several Sustainable Development Goals (SDGs).

Chapter 5

Data Analysis and Findings on Research Survey of the street vendors who are using UPI

5.1. In recent years, the Unified Payments Interface (UPI) has transformed how people in India handle payments, offering a quick and easy way to transfer money. For street vendors in Delhi, who were once heavily reliant on cash transactions, UPI has opened up new possibilities. As digital payments become more common, an increasing number of these vendors are embracing UPI to streamline their business operations and serve their customers better.

This chapter explores the findings from a survey conducted with street vendors in Delhi who are currently using UPI for their daily transactions. The goal is to understand how adopting UPI has affected their businesses, from improving sales to enhancing customer trust. It also examines the various benefits they've experienced, like quicker payments and the ease of managing transactions digitally.

At the same time, this chapter also looks at any challenges these vendors might still face in using UPI—be it issues with technology, internet connectivity, or customer awareness. By analyzing their experiences, we can get a clearer picture of how UPI is influencing financial inclusion for street vendors and what can be done to make this transition smoother for others.

Ultimately, the findings will offer valuable insights into how UPI has changed the way street vendors do business and contribute to a broader understanding of how digital payments can drive financial inclusion in India's informal sector.

5.2. Overview of Delhi

Delhi is one of the largest metropolitan cities in the country. It is a centre of cultural diversities, where large numbers of people are living who actually belong to different states of India. Many of them have migrated in Delhi for their employment.

Economically, Delhi is contributing significantly to India's GDP. Its economy is diversified, in sectors like trade, manufacturing, real estate, information technology, and an expansive informal sector. Among the most critical components of this informal economy are the street vendors, who serve as lifelines for countless residents and visitors by offering accessible goods and services. Delhi's cosmopolitan nature, coupled with its status as a melting pot of cultures, makes it a fitting case study to evaluate the role and impact of financial inclusion initiatives like the Unified Payment Interface (UPI).

5.3. Role of Street Vendors in Delhi's Economy

Street vendors in Delhi play an indispensable role in the city's economy, contributing to both its formal and informal sectors in numerous ways. The informal economy, where street vending occupies a central space, is often overlooked in conventional economic metrics, but it has a significant impact on the livelihoods of millions of people, the availability of affordable goods and services, and the broader economic fabric of the city. Delhi, as one of the largest and most populous urban centers in India, has seen an exponential growth in the number of street vendors over the years. These vendors not only serve as an essential component of the urban economic structure but also act as crucial players in fostering social integration, economic mobility, and the distribution of goods and services. The contribution of street

vendors extends beyond the simple exchange of goods and services; it involves a deep interconnection with the local economy, employment generation, and socio-cultural dynamics, which together make them an integral part of Delhi's economy.

Currently, there are around 75,000 street vendors identified by the authorities during a survey in 2022. But the vendor associations claim there are around 5 lakh street vendors in the city (The Times of India, 2024).¹⁵

Key Contributions of Street Vendors:

- (i) **Affordable Goods and Services:** From fruits, vegetables, and prepared foods to garments, books, and household items, street vendors provide essential commodities at prices lower than traditional retail stores. For example, street vendors selling fresh produce help keep food prices competitive and provide easy access to affordable, nutritious options. Food vendors selling street food items, such as chaat, parathas, and samosas, cater to a wide range of consumers, offering quick, tasty, and inexpensive meal options. Additionally, street vendors play an important role in providing goods in areas where formal retail outlets are either absent or too expensive.
- (ii) **Employment Creation:** With an estimated 5,00,000 street vendors in Delhi, these vendors play a crucial role in providing livelihoods, particularly for migrants and those with limited formal education. Their activities support not only their families but also contribute to the broader economy by creating employment opportunities in the informal sector.

¹⁵<https://timesofindia.indiatimes.com/city/delhi/mcd-street-vendors-survey-in-new-delhi-by-municipal-corporation-of-delhi/articleshow/108554285.cms>

- (iii) **Cultural Significance:** Street vendors help preserve and promote regional cuisines and traditional crafts, enriching Delhi's cultural identity. Street vendors also contribute to the cultural diversity of Delhi, offering a wide range of goods that reflect the city's multi-ethnic, multi-lingual character.
- (iv) **Economic Accessibility:** Street vendors in Delhi play a vital role in ensuring economic accessibility for the city's diverse population. Accessibility to affordable goods and services is a critical aspect of urban life, particularly in a sprawling and rapidly growing metropolis like Delhi, where disparities in income levels and living conditions are stark. In this context, street vendors act as an important economic lifeline for many individuals, particularly those in lower-income brackets or those who may not have the means to access goods and services in formal retail settings. They not only make a wide variety of products accessible but also contribute to the affordability and inclusivity of urban economic systems.

5.4. Detail of the Research Survey

In order to assess Impact of Unified Payment Interface (UPI) in financial inclusion on Street Vendors of Delhi a survey was conducted through a questionnaire using Google Form. The survey was conducted with street vendors working in different sectors in different parts of Delhi during the months of January, February and March 2025.

Primary data were collected through the questionnaire with street vendors of Delhi who are using UPI. Also, meetings/interview was conducted with officials/experts from following stakeholders:

- (i) Banks
- (ii) Financial expert

5.5. Questionnaire for the street vendors who are using UPI:

The questionnaire had 46 questions. The first 9 questions in the questionnaire were focused on demographic information of street vendors. Questions 10 to 16 were aimed at assessing the Technology and awareness levels. Questions 17 to 26 were focused on usage Patterns. Questions 27 to 30 were related to customer interaction & experience. Questions 31 to 39 were intended to find out financial impact of UPI. Questions 40 to 46 were asked to know challenges and barriers faced by street vendors while using UPI.

Special care was taken to administer the questionnaire both in English and Hindi language for maximum outreach and wider participation.

Due to paucity of time responses were collected from only 110 street vendors of Delhi. It was difficult to survey on street vendors; many of the street vendors were reluctant to provide requisite information. They were in impression that their personal information shall be disclosed to everyone. They were ensured that their responses like personal detail shall not be disclosed and confidentiality shall be maintained.

The analysis of the response to each question has been done by correlating it with inputs gathered during the field survey. A copy of the questionnaire is placed at **Appendix A**.

5.6. Demographic Information

Demographic information of 110 responses of street vendors of Delhi who are using UPI was analyzed and same is tabulated as following **Table 5.1**.

Table 5.1 Demographic Information

S.No.	Particulars	Classifications	No. of Responses	Percentage %
1	Gender	Male	87	79.09
		Female	23	20.91
		Total	110	100.00
2	Age	18-30	28	25.45
		31-40	30	27.27
		41-50	36	32.73
		51-60	16	14.55
		Total	110	100.00
3	Educational Qualification	No formal education	16	14.55
		Primary	43	39.09
		Matriculation(10th)	40	36.36
		Senior Secondary (12th)	9	8.18
		Graduation	2	1.82
		Total	110	100.00
4	No. of Years working as Street Vendor	Less Than one Year	8	7.27
		1-3 Years	13	11.82
		4-6 Years	33	30.00
		More than 6 years	56	50.91
		Total	110	100.00
5	Area where business is operated	Bus Stand/Terminal	1	0.91
		Markets	41	37.27
		Near Bus Stand	1	0.91
		Near Bus Stand & Metro Stand	1	0.91
		Near metro stations	34	30.91
		Street corners	31	28.18
		Weekly Markets across Delhi	1	0.91
		Total	110	100.00
6	Average Daily income by UPI	₹100 - ₹500	3	2.73
		₹1000 - ₹1500	42	38.18
		₹1500 - ₹2000	7	6.36
		₹500 - ₹1000	54	49.09
		More than ₹2000	4	3.64
		Total	110	100.00
7	Type of product selling	Clothing	12	10.91
		Electronics	4	3.64
		Electronics, Accessories of Mobile phone	6	5.45

	Flower Bouquet, Garland, Flowers etc.	1	0.91
	Flowers and Garlands	2	1.82
	Food and beverages	31	28.18
	Fruit Juice	3	2.73
	Fruits	20	18.18
	Household items	13	11.82
	Household items, Electronics	1	0.91
	Ice cream and Kulfi	1	0.91
	Snack Food (Boiled Sweet Potato)	1	0.91
	Toys	1	0.91
	Vegetables	11	10.00
	Vegetables, Fruits	3	2.73
	Total	110	100

(Sources: Interview data from field survey)

The survey included street vendors from different parts of Delhi, covering a mix of ages, genders, education levels, and types of businesses. It was a general perception that younger vendors who have higher education level and more familiar with technology will be using UPI payment method. But, it can be seen from demographic information that street vendors of all age group are using UPI payment. The Survey was conducted with different types of Businesses with different customer bases. This diversity helps explain the different ways vendors are using UPI and highlights how factors like age, education, and business type play a role in adoption.

5.7. Findings and analysis of the Research Survey

As mentioned above, Research survey was carried out with 110 street vendors in different parts of Delhi. Their responses on different questions are mentioned as below:-

5.7.1. Gender of the respondents

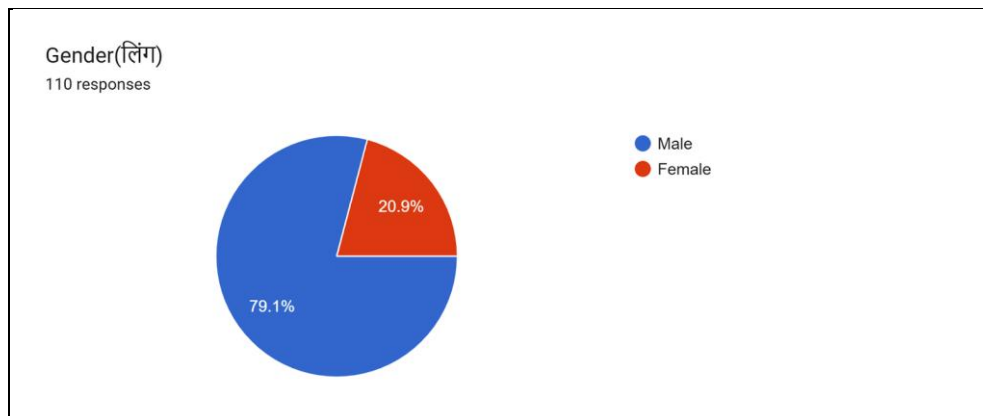


Figure 5.1: Gender of the respondents

A total of 110 SVs were interviewed out of which (79.1%) were male and (20.9%) were female. Majority of street vendors were found as male category.

5.7.2. Educational Qualification of respondents

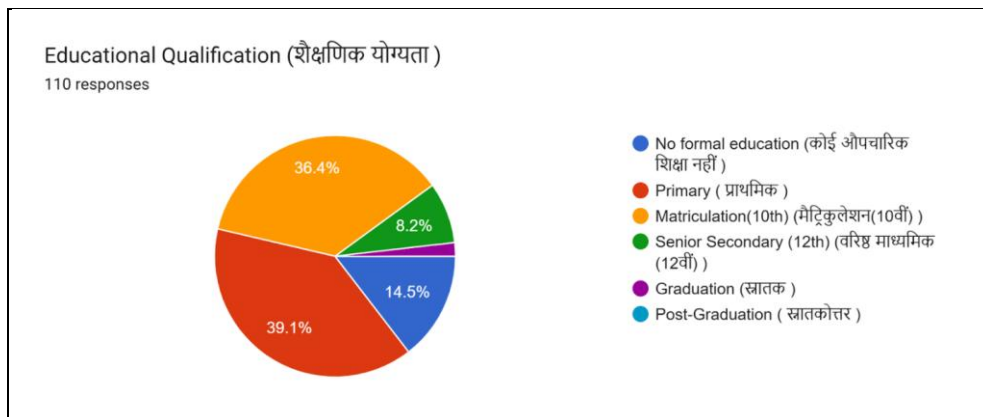


Figure 5.2: Educational Qualification of respondents

Out of 110 SVs, Majority of SVs (39.1%) were found their education of Primary level , subsequently (36.4% - Matriculation) , (14.5%- No Formal Education) , (8.2%- Senior Secondary).

5.7.3. Duration of street vendor business

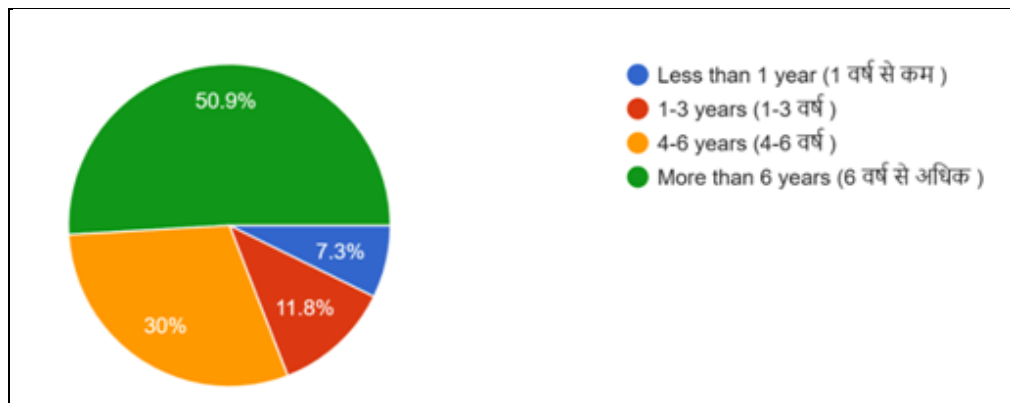


Figure 5.3: Duration of street vendor business

Out of 110 SVs, Majority of SVs (50.9%) was found that they have been working as street vendors for more than 6 years.

5.7.4. Owning smartphone

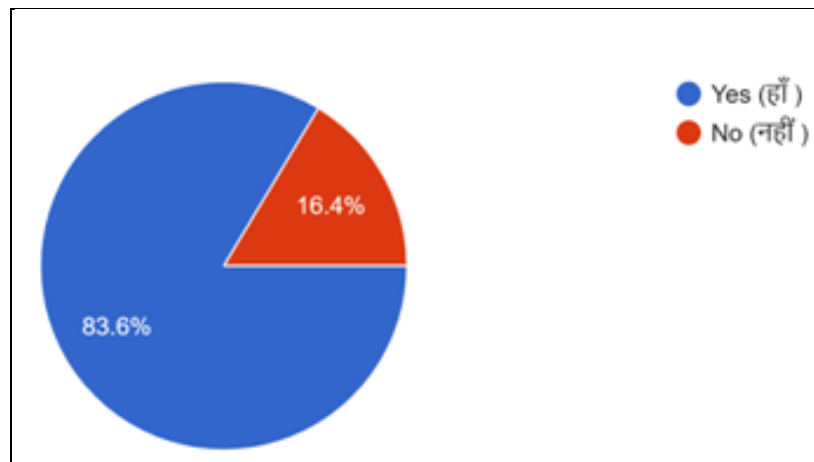


Figure 5.4: Owning smartphone

This question was targeted at assessing use of Technology Access for digital payments. Majority of respondents 83.6% have smart phone and about 16.4% of respondents do not have smart phone. Use of smart phone provides necessary support and act as backbone for digital payments like UPI.

With 83.6% of vendors owning smartphones, the accessibility of technology significantly contributes to UPI's adoption. This indicates a broader trend of tech integration in even the most informal sectors.

5.7.5. Awareness about UPI

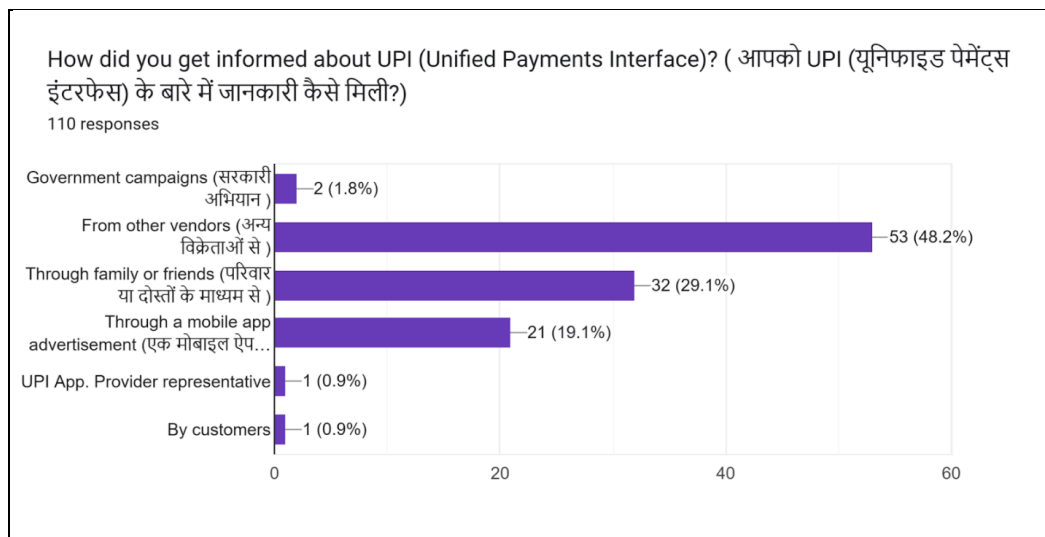


Figure 5.5: Awareness about UPI

The question was targeted at assessing awareness about the aim and objectives of the Research. Out of 110 SVs , Majority of the respondents 48.2% stated that they get informed about UPI from other vendors. It means street vendors received information about UPI by interaction with other street vendors.

While about 29.1% respondents get informed through family or friends and 19.1% get informed through mobile app advertisement. Very few respondents get informed by customers and Govt. campaigns.

5.7.6. Use of Payment method

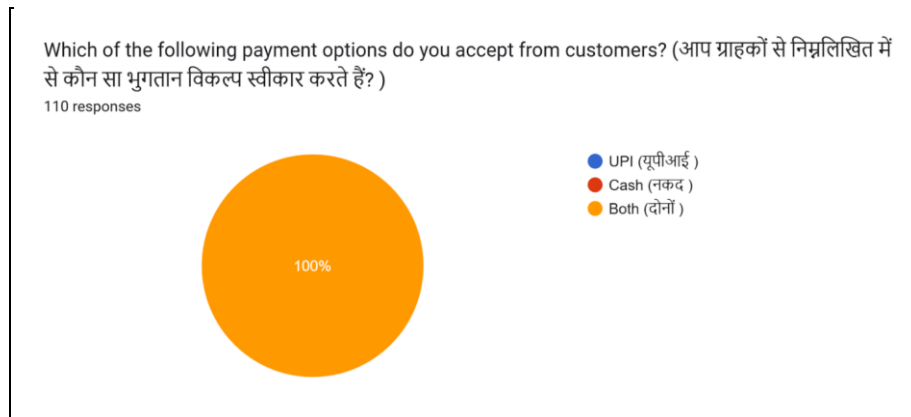


Figure 5.6: Use of Payment method

All 110 respondents 100% stated that they are accepting payments in UPI as well as in cash. As per convenience, customers pay their payment either through UPI or cash.

5.7.7. Use of UPI App for Payment

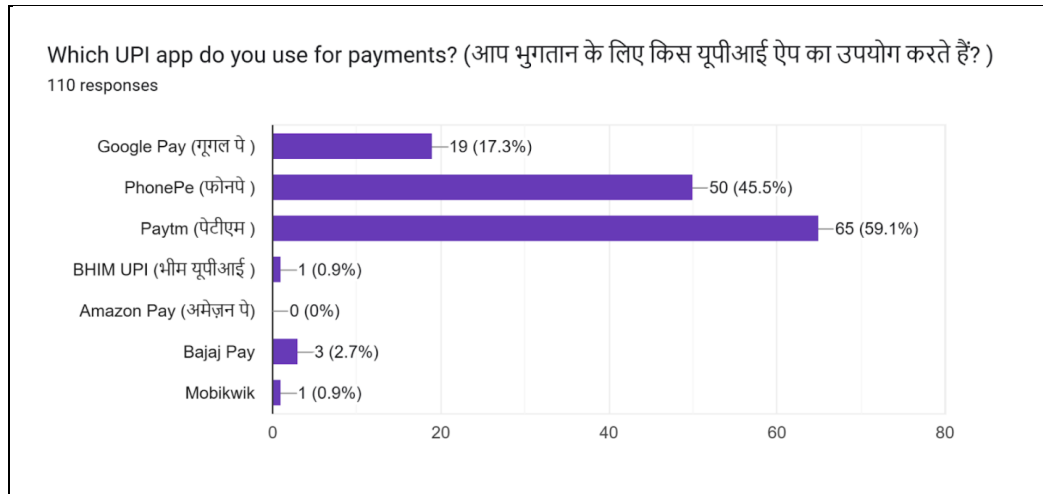


Figure 5.7: Use of UPI App for Payment

Out of 110 SVs respondents, 59.1% informed that they are using Paytm UPI, 45.5% Phone Pay UPI, 17.3% Google pay, 2.7% Bajaj Pay and 0.9% Mobikwik UPI . Majority of street vendors were using Paytm and Phone Pay UPI app.

5.7.8. Understanding of UPI

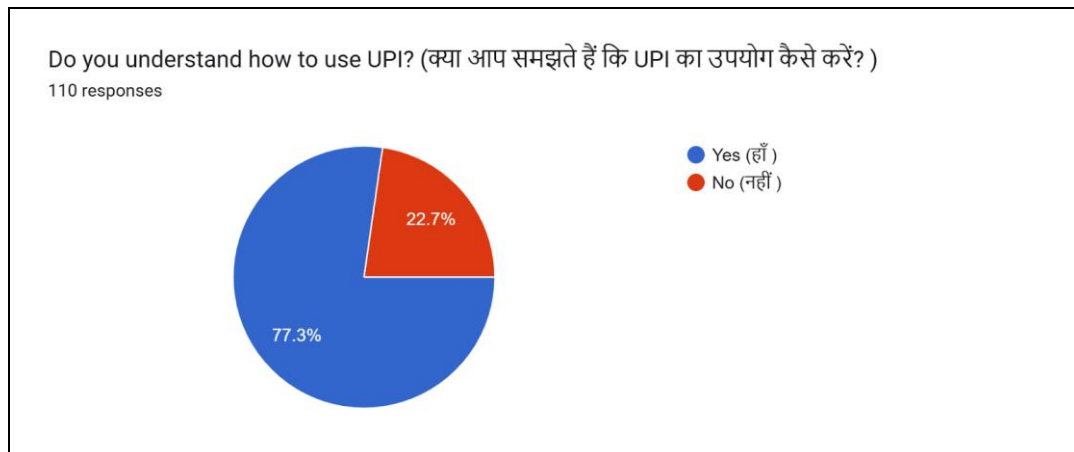


Figure 5.8: Understanding of UPI

This question was targeted to know awareness of UPI among street vendors. Out of 110 SVs, Majority of SVs 77.3% responded that they understand how to use UPI and 22.7% SVs do not know how to use UPI.

5.7.9. Training to use UPI

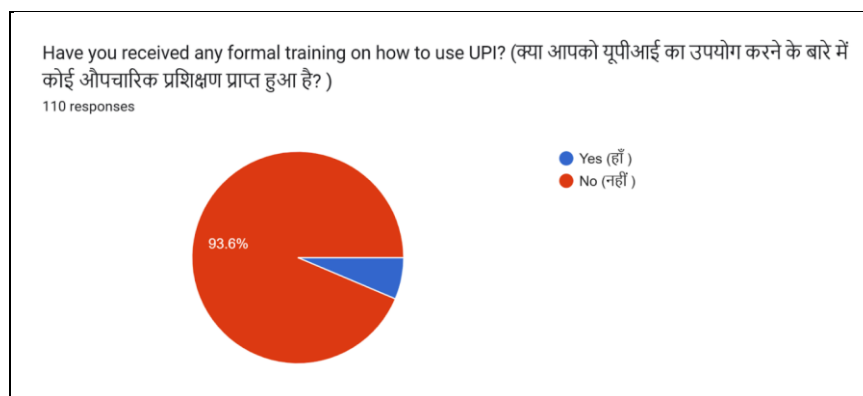


Figure 5.9: Training to use UPI

A staggering 93.6% of vendors reported not receiving formal training on using UPI, indicating a critical gap in knowledge that could hinder effective usage of the

platform. Addressing this gap through targeted training programs could significantly enhance the efficiency and security of UPI transactions among vendors.

5.7.10. Installation of UPI app

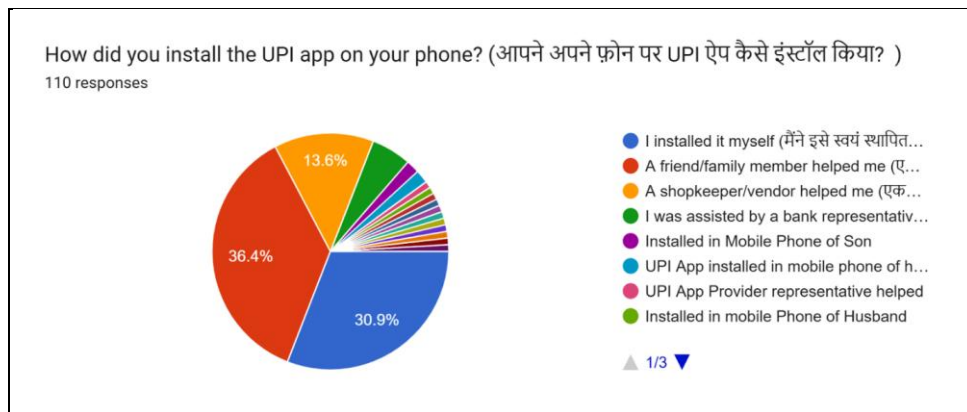


Figure 5.10: Installation of UPI app

36.4% informed that a friend/family member helped to install UPI .30.9 % responded that they installed UPI themselves. 13.6% responded that a shopkeeper/vendor helped them to install UPI. Some SVs informed that UPI app was installed with the help of UPI App provider representative and some were assisted by bank representative.

Those SVs who does not have smart phone informed that UPI app has been installed in smart phone of their relatives like son, daughter, husband.

Some SVs informed that they are selling product of their owner and UPI app has been installed in owner's smart phone. Some street vendors informed that UPI app has not been installed because they can confirm UPI payment through UPI sound box.

5.7.11. Reasons to accept UPI payments

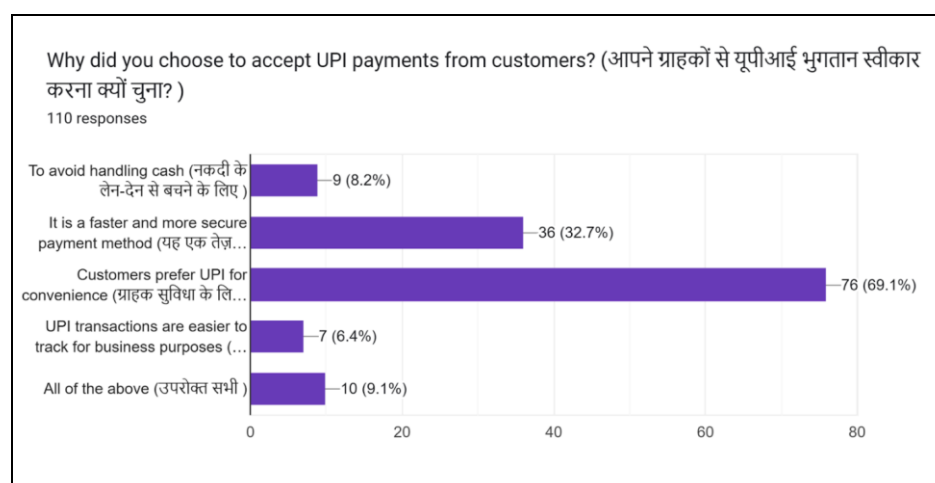


Figure 5.11: Reasons to accept UPI payments

This question was targeted to know reasons for adoption of UPI among street vendors. Majority of SVs (69.1%) informed that they choose to accept UPI payments from customers because Customers prefer UPI for convenience. Subsequently, 32.7% SVs responded that it is a faster and more secure payment method. Other 6.4% SVs informed that UPI transactions are easier to track for business purposes. 8.2 % SVs responded that UPI resolves problems of change of cash, so to avoid cash handling they adopted UPI payment.

5.7.12. Acceptance UPI payments first time

This question was targeted to know how they first started accepting payments through UPI. Mixed responses were received for this question. 39.1% SVs responded that they first started accepting payments through UPI during the pandemic (COVID-19). 33.6% SVs responded that they started to receive UPI payment before the pandemic (COVID-19).

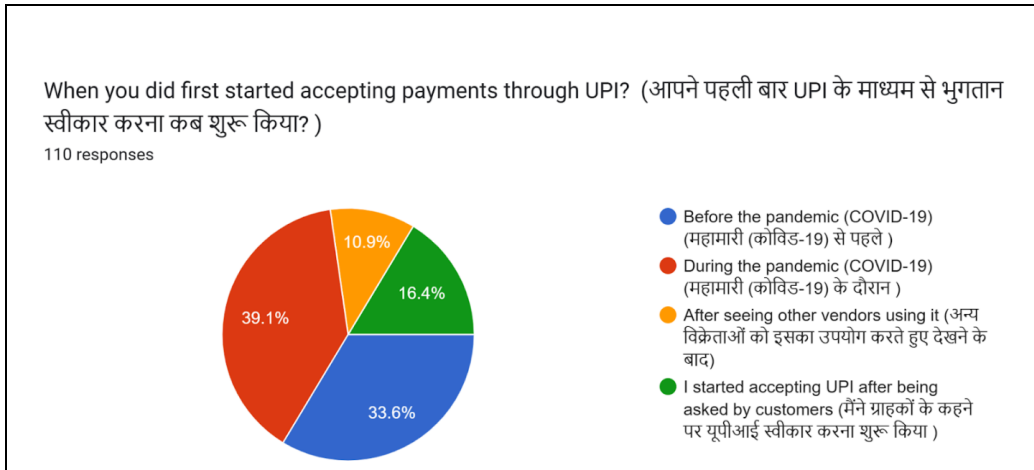


Figure 5.12: Acceptance of UPI payments first time

16.4% SVs responded that they started to receive UPI payment after being asked by customers and 10.9% SVs started to receive UPI payment after seeing other vendors using it.

5.7.13. Total sales through UPI

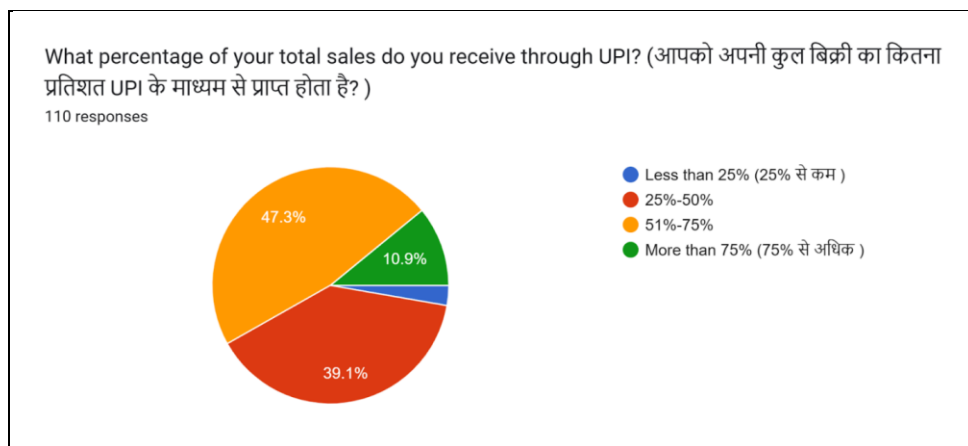


Figure 5.13: Total sales through UPI

This question was focused to know what percentage of total sales is received through UPI. Majority of SVs 47.3% responded that they receive 51%-75% of total sales through UPI.

5.7.14. Convenience of UPI Payments

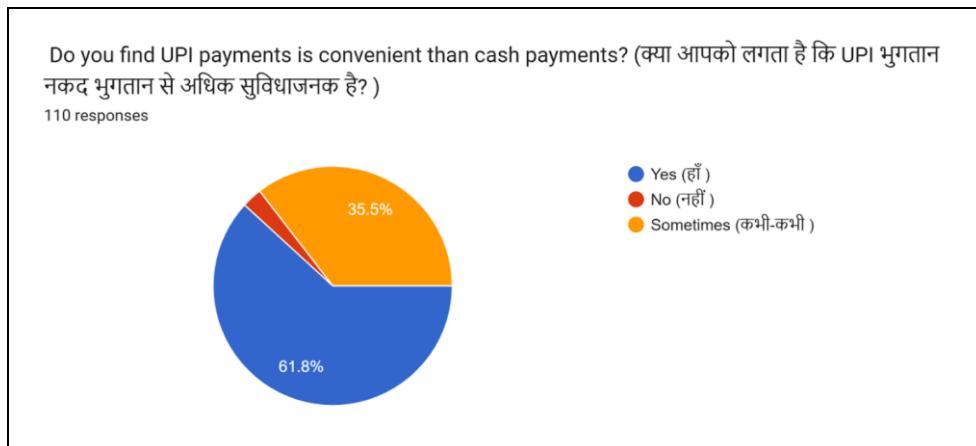


Figure 5.14: Convenience of UPI Payments

Majority of SVs about 61.8% responded that UPI payments is convenient than cash payments. They informed that sometime they do not have enough change for cash payment and UPI is convenient in this respect.

5.7.15. Preference of UPI payment method

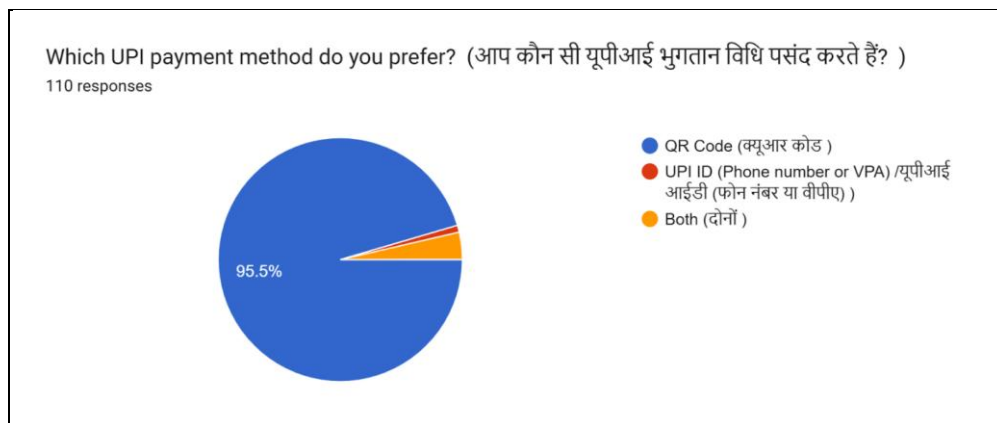


Figure 5.15: Preference of UPI payment method

During research survey, majority of SVs 95.5 % informed that they prefer QR code method for receiving UPI payment from customers. As, QR code is very convenient to use. Customers simply scan the QR code through any UPI app and pay the payment. In this process there is no requirement to inform Mobile no., UPI ID, Bank Account No. , IFSC code etc.

5.7.16. Receiving of Daily Average amount through UPI

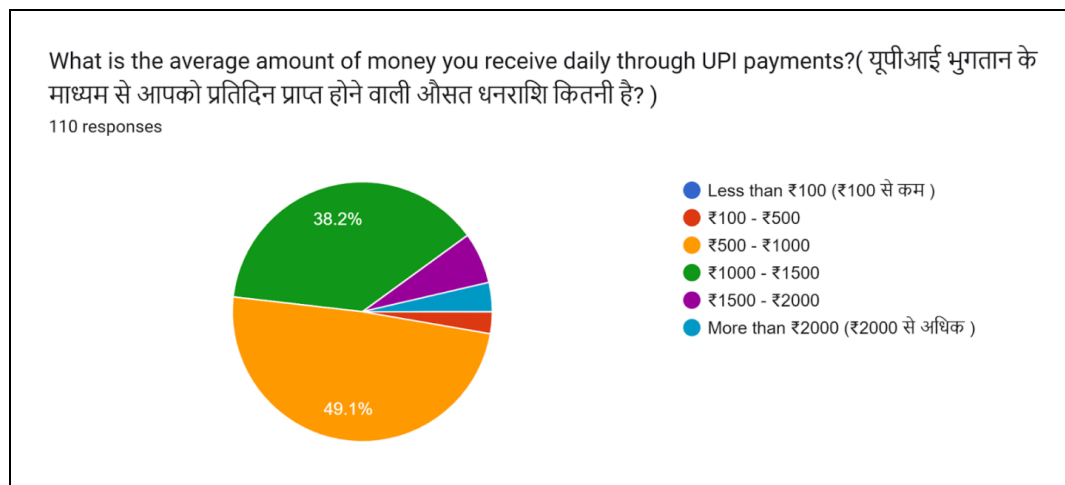


Figure 5.16: Receiving of Daily Average amount through UPI

Majority of SVs about 49.1% responded that average Rs. 500-1000 are received daily through UPI payments. While 38.2% SVs informed that average Rs. 1000-1500 are received daily through UPI payments.

5.7.17. Technical issues in UPI payments

This question was asked to find out whether SVs are facing any technical issues while receiving payments through UPI. About 45.5% SVs responded that they face technical issues while receiving payments through UPI Occasionally. While 31.8% SVs informed that they do not face any technical issues.

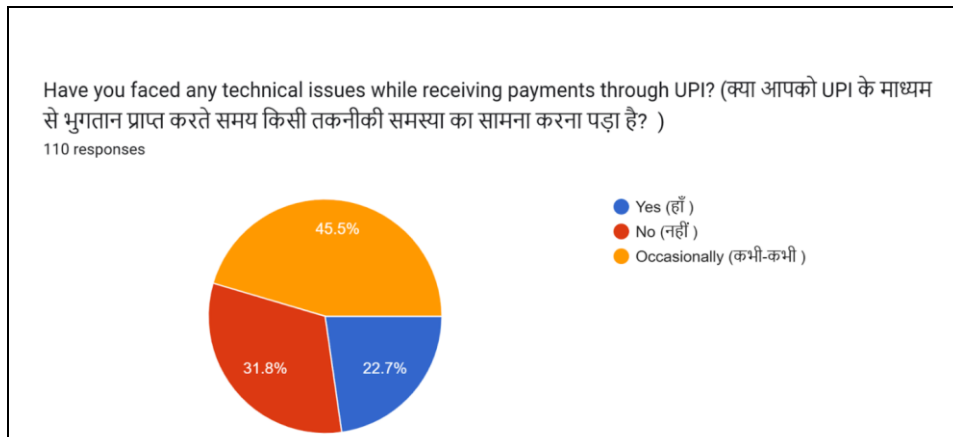


Figure 5.17: Technical issues in UPI payments

5.7.18. Types of Technical issues in receiving UPI Payments

Those SVs who informed that they faced technical issues while receiving payments through UPI, those issues are mentioned as following:-

- (i) Bar code does not get scanned quickly sometimes
- (ii) Battery gets discharged too quickly, sometimes take few minutes to resume
- (iii) Difficult to maintain record as payment goes to brother's saving account
- (iv) Late Response from backend
- (v) Mobile network Connectivity
- (vi) Network Connectivity
- (vii) Not easy to maintain record of total sales due to cash and online payment
- (viii) Payment deducts from customer, but gets credited after few minutes
- (ix) Payment receives after few minutes in few cases
- (x) Payment voice notification comes after few seconds
- (xi) Payment stuck sometime
- (xii) Poor Internet
- (xiii) Poor Network connectivity creates issues

- (xiv) Server Problem
- (xv) Slow speed of internet and server problem
- (xvi) Sometime UPI server/ UPI App not working
- (xvii) Sometime payment stuck and gets credited after a while
- (xviii) Sometimes the payment takes longer time to get credited
- (xix) UPI box take few minutes to confirm Payment
- (xx) UPI sound box does not respond sometime for payment
- (xxi) Weak Mobile network

5.7.19. Handling of UPI payment failures

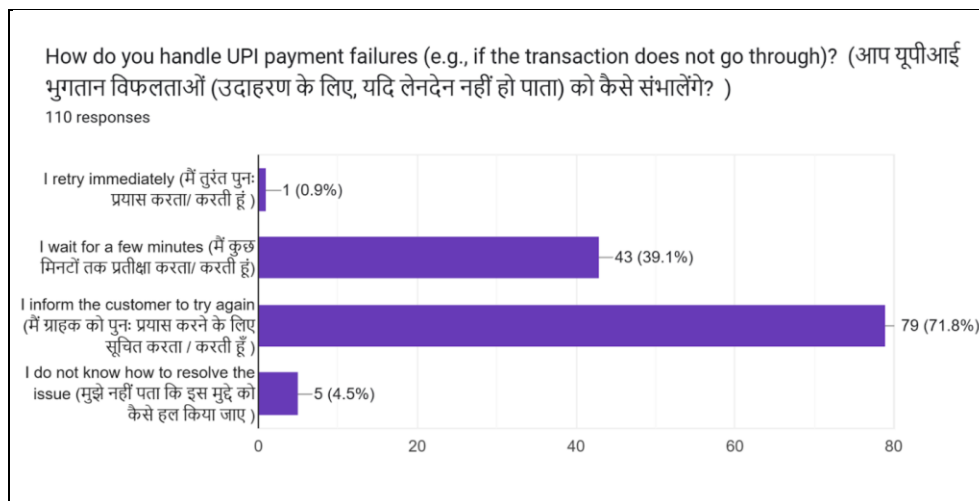


Figure 5.18: Handling of UPI payment failures

Majority of SVs about 71.8% responded that they inform the customer to try again during UPI payment failures. While 39.1% SVs informed that they wait for few minutes if payment does not go through. Very few SVs about 4.5% responded that they do not know how to resolve the issue.

5.7.20. Assurance of UPI account from fraud

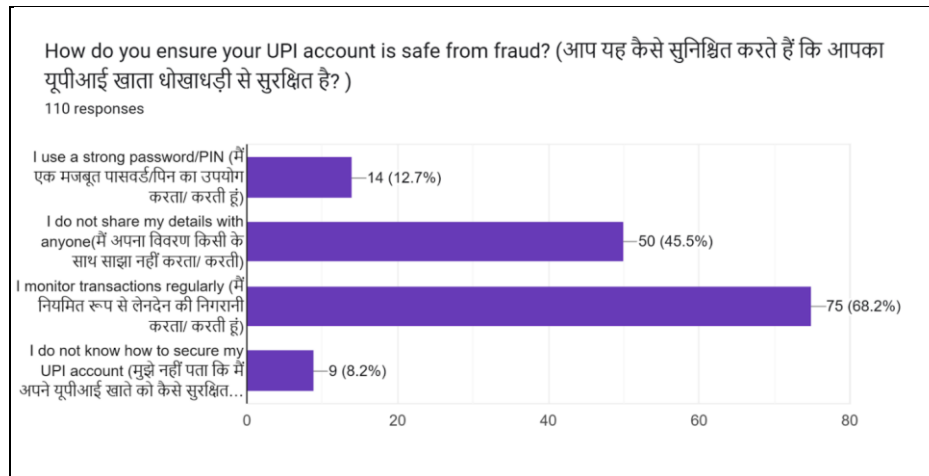


Figure 5.19: Assurance of UPI account from fraud

The question was aimed to assess how SVs ensure their UPI account safe from fraud. It has been seen in demographic detail that education level of majority SVs are at primary and matriculation. They are not expert in technical field.

Majority of SVs About 68.2% have informed that they monitor transactions regularly. Whenever customers pay through UPI, Some SVs note down that UPI payment in their note book/diary and in this way they monitor their UPI payment. While, 40.5% SVs responded that they do not share their details with anyone.

5.7.21. Preference of customers for UPI

The question was aimed to assess customer's interaction and experience w.r.t. UPI payment. During research survey majority of SVs about 86.4% informed that most of customers prefer paying through UPI. It indicates that more number of customers do transaction through UPI payment.

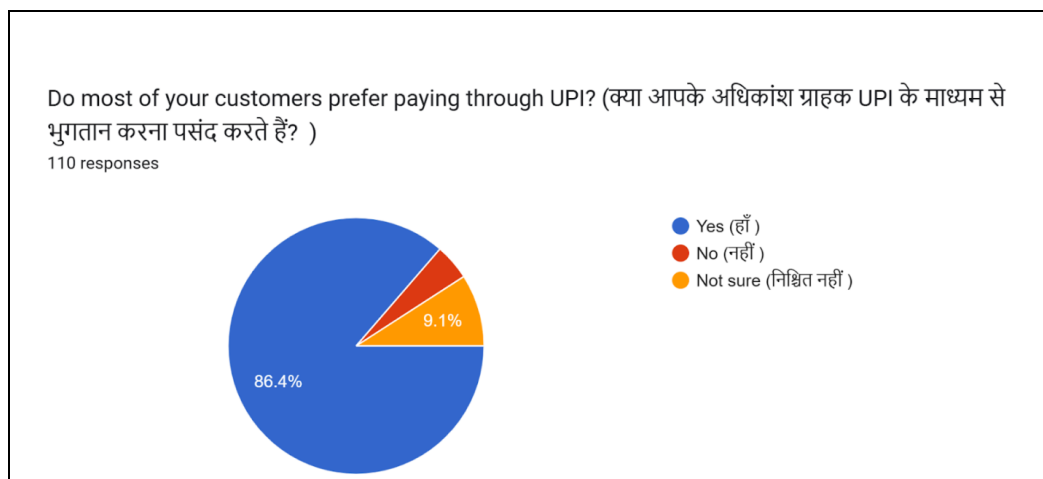


Figure 5.20: Preference of customers for UPI

5.7.22. Incentives from UPI App. Service Providers

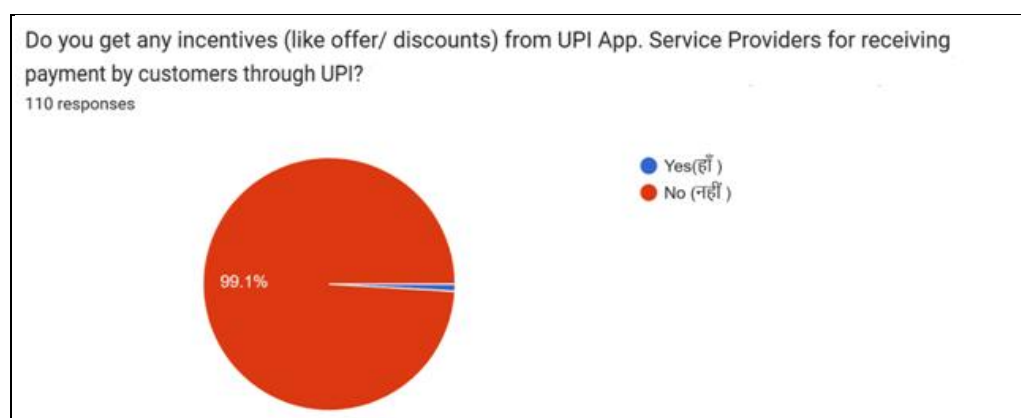


Figure 5.21: Incentives from UPI App. Service Providers

This question was intended to know UPI adoption level through incentives (like offer/ discounts) from UPI app service providers. It has been seen that one of the reason for adoption of UPI among customers was discount/offers/cash back was given by UPI App. Service providers. Similarly, it was inquired from street vendors that whether they also get any incentives like discount/offers/cash back from UPI App service providers.

By this research survey it was found that majority of SVs (99.1%) do not get any incentives (like offer/ discounts) from UPI App. Service Providers for receiving payment by customers through UPI.

5.7.23. Trend in number of customers while using UPI payments

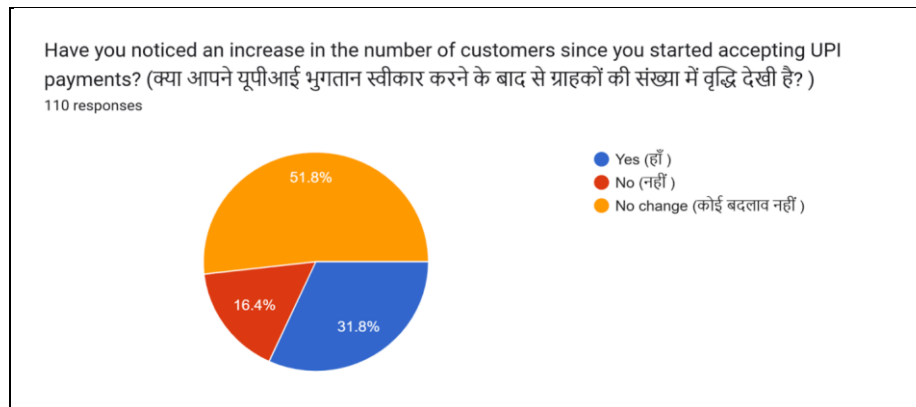


Figure 5.22: Trend in number of customers while using UPI payments

Majority of SVs (about 51.8%) informed that they have not noticed any increase in the number of customers since they are accepting UPI payments. While, about 31.8% SVs informed that they have noticed increase in number of customers since they are accepting UPI payments.

5.7.24. Easy Purchasing for customers through UPI

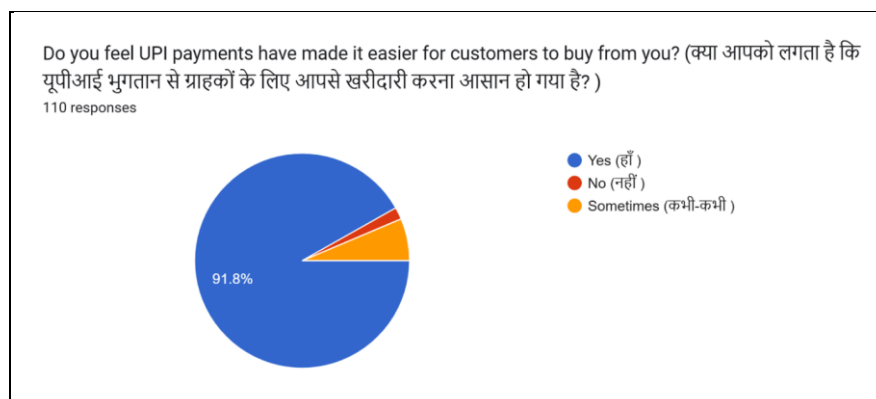


Figure 5.23: Easy Purchasing for customers through UPI

Majority of SVs (about 91.8%) responded that UPI payments have made it easier for customers to buy from them. It means customer can pay easily through UPI App. , they do not require to carry wallet or cash for purchasing any items.

The ability to process payments quickly also enhances customer experiences, as indicated by 91.8% of vendors noting that UPI has made it easier for customers to make purchases. This trend presents an opportunity for vendors to expand their services and enhance customer satisfaction.

5.7.25. Owing of Bank Account

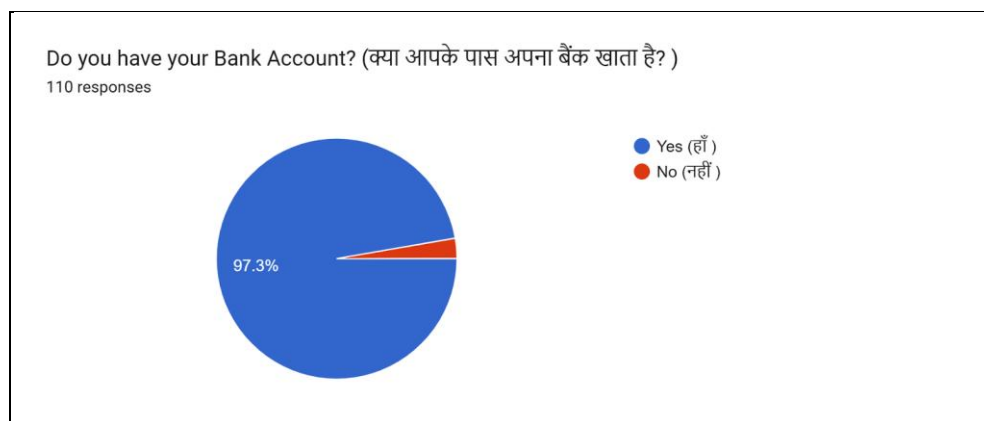


Figure 5.24: Owing of Bank Account

This question was aimed to assess financial inclusion of street vendors of Delhi. The majority of street vendors now has bank accounts and receives UPI payments directly, showcasing the positive impact of UPI on financial inclusion. The majority of respondents (97.3%) reported having bank accounts, which is a significant step towards integrating them into the formal economy.

5.7.26. Receiving of UPI Payment in Bank Account of self

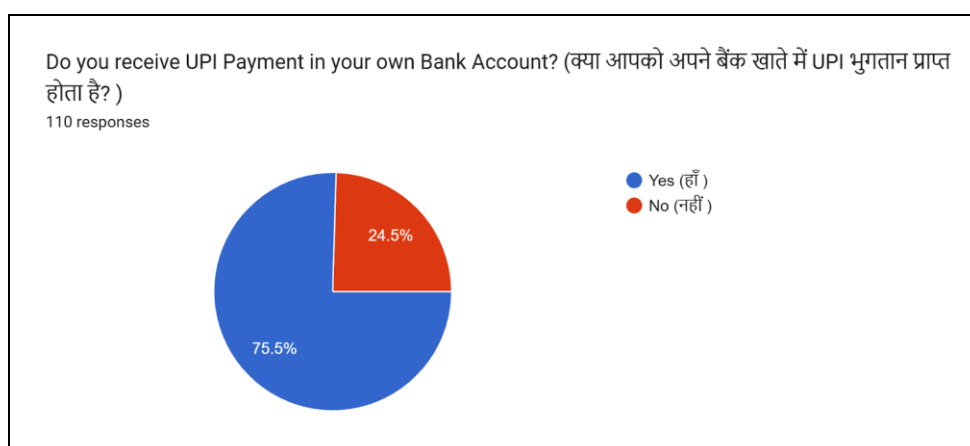


Figure 5.25: Receiving of UPI Payment in Bank Account of self

During the field survey it was noticed that UPI payment is not being credited to bank account of some street vendors. Therefore, this question was aimed to know whether they are actually becoming part of formal economy or they have simply opened bank account and not using it.

Majority of SVs (about 75.5%) responded that UPI Payment is being credited in their own Bank Account. However, 24.5% of vendors do not receive UPI payments in their bank accounts, indicating that there is still work to be done in ensuring that all vendors benefit fully from digital payment systems.

5.7.27. Credit of UPI Payment in other's Bank account

As mentioned above, 24.5% SVs responded that they do not receive UPI payment in their own bank account. They informed that UPI payments are received in the Bank account of following:-

- (i) Bank Account of Daughter
- (ii) Bank Account of Husband

- (iii) Bank Account of Owner
- (iv) Bank Account of Son
- (v) Bank Account of Brother

5.7.28. Effect on business income

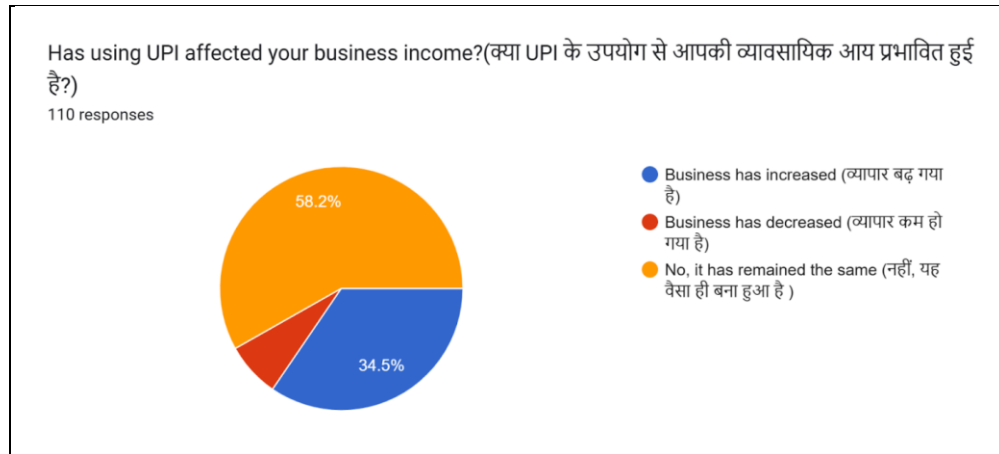


Figure 5.26: Effect on business income

The question was aimed to assess financial impact of receiving payment through UPI. Interestingly, the economic impact of UPI on vendor income is mixed. While 34.5% of respondents reported an increase in business income since adopting UPI, 58.2% indicated that their income remained the same. This variability can be attributed to several factors, including the nature of the goods sold and the specific customer base each vendor serves. This suggests that while UPI does enhance efficiency and customer interaction, it does not necessarily guarantee higher profits for all vendors. Their ability to accept digital payments through UPI enhances their competitiveness in the market, further solidifying their economic significance.

5.7.29. Quickness in Credit of UPI Payment in Bank Account

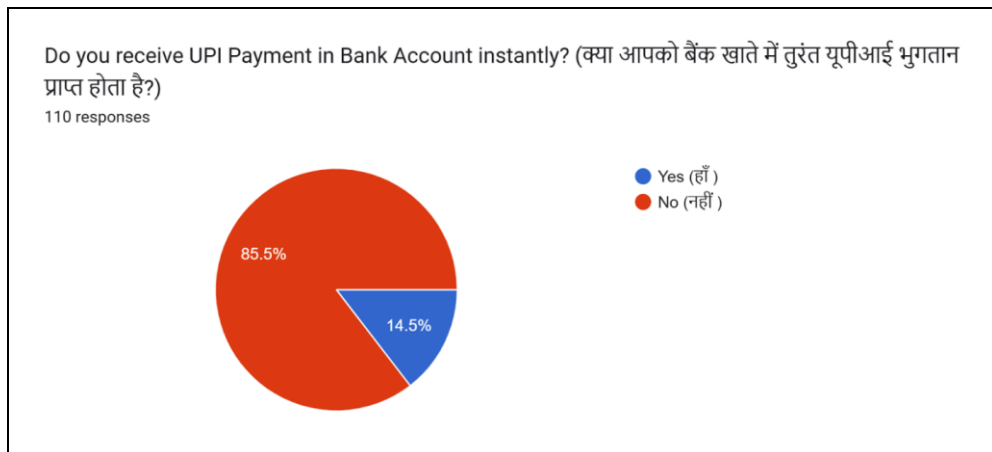


Figure 5.27: Quickness in Credit of UPI Payment in Bank Account

Majority of SVs (85.5%) informed that receive UPI Payment in Bank Account instantly. It take some time to credit UPI payment in bank Account.

5.7.30. Time duration for credit of UPI payment in bank account

Majority of SVs informed that it take about 12 to 24 Hours / 1 Day for the UPI payment to be credited to their bank account.

5.7.31. Mitigation of Risk of theft or loss of cash in UPI Payment

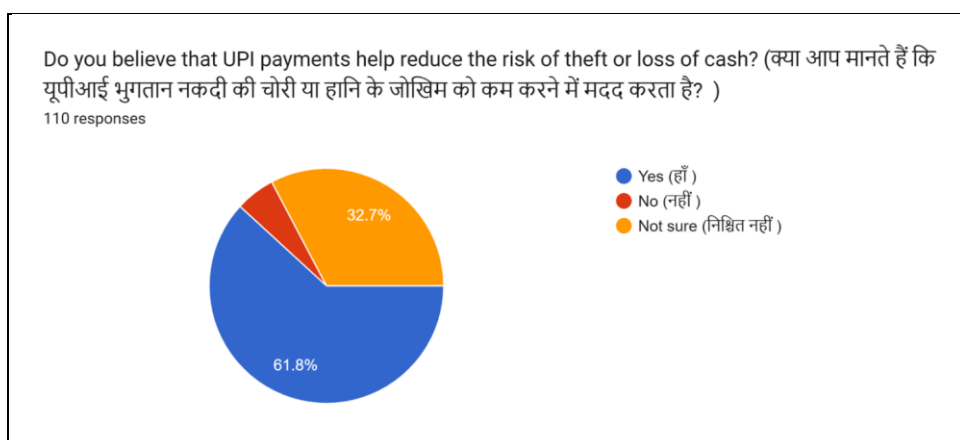


Figure 5.28: Mitigation of Risk of theft or loss of cash in UPI Payment

During field research survey, majority of SVs (61.8%) informed that UPI payments help to reduce the risk of theft or loss of cash. As it is a digital payment so there is no chances of theft or loss of cash.

The majority of customers prefer using UPI for transactions, indicating a shift in consumer behavior towards digital payments. The adoption of UPI has streamlined transactions, allowing for quicker payments that enhance vendor-customer interactions. This efficiency reduces the need for cash handling and mitigates the risks associated with cash transactions, such as theft or loss.

5.7.32. Business to Business / Merchant to Merchant transaction

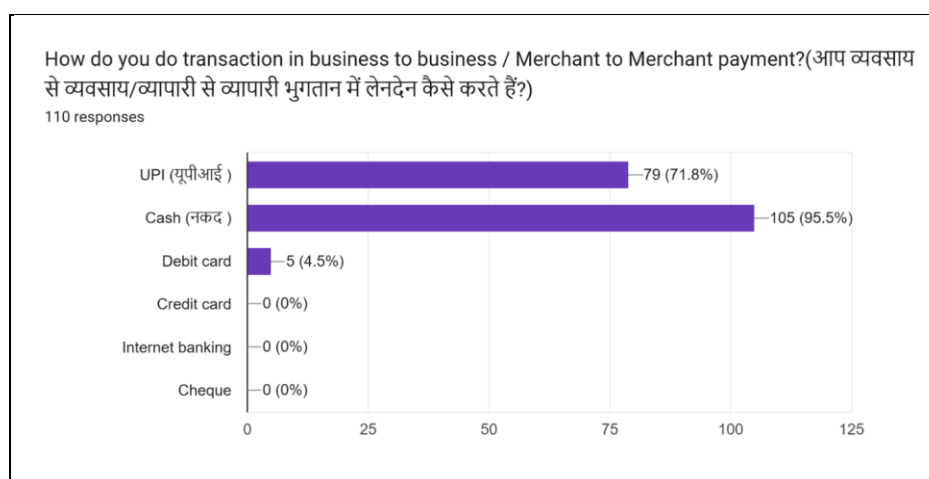


Figure 5.29: Business to Business / Merchant to Merchant transaction

The question was aimed to assess adoption of UPI payment by street vendors of Delhi for their own day to day transaction with other merchants or business to business. Majority of SVs informed that they generally do transaction with other merchants in the form of both UPI and cash. However, few SVs responded that they use only cash transaction with other merchants. As other merchants demand only payment in cash rather than in digital mode.

5.7.33. Management of Business to Business / Merchant to Merchant transaction

Those SVs who do transaction in business to business / Merchant to Merchant through only cash payment informed that they manage it following way:

- (i) By collection received in cash
- (ii) By earning in cash
- (iii) By earning in cash and withdrawal from ATM
- (iv) By Earning and withdrawal from bank
- (v) Collection received from customers in cash
- (vi) Income by selling and withdrawal from ATM
- (vii) Owner himself manages
- (viii) Owner purchases himself
- (ix) Withdraw amount from Bank/ATM

5.7.34. Challenges in UPI Payment

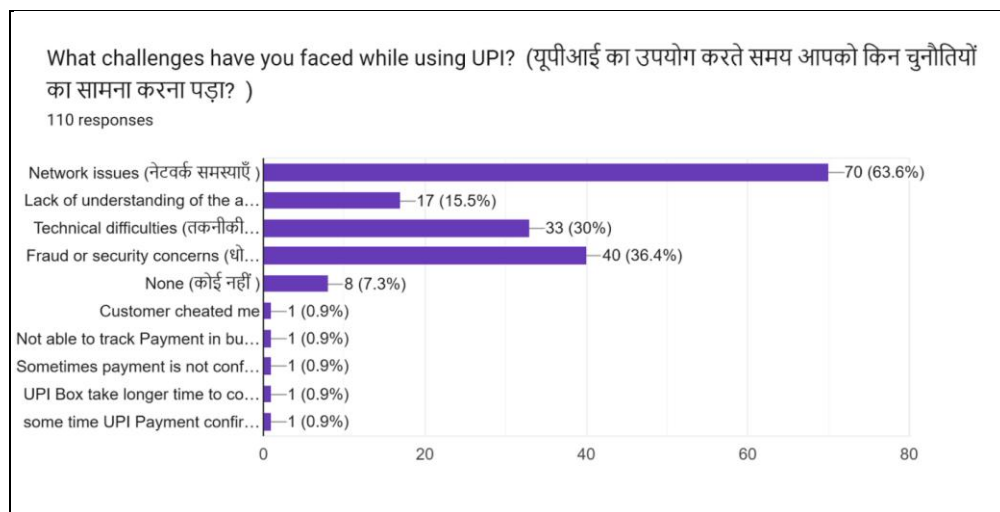


Figure 5.30: Challenges in UPI Payment

The question was aimed to find out what types of challenges are faced by street vendors while using UPI. Majority of SVs (63.6%) informed that they have faced challenges of Network issues while using UPI. Due to Low or weak connectivity of mobile network, sometimes UPI payment does not go through.

While, 36.4% SVs informed that they have faced challenges of Fraud or security concerns in UPI Payment. Similarly, about 30% SVs informed that they have faced challenges of Technical difficulties in UPI Payments.

It indicates that infrastructure improvements are necessary to support seamless digital transactions. Reliable internet access is essential for the success of digital payment platforms, especially in urban settings like Delhi.

5.7.35. Customer interaction in UPI Payment

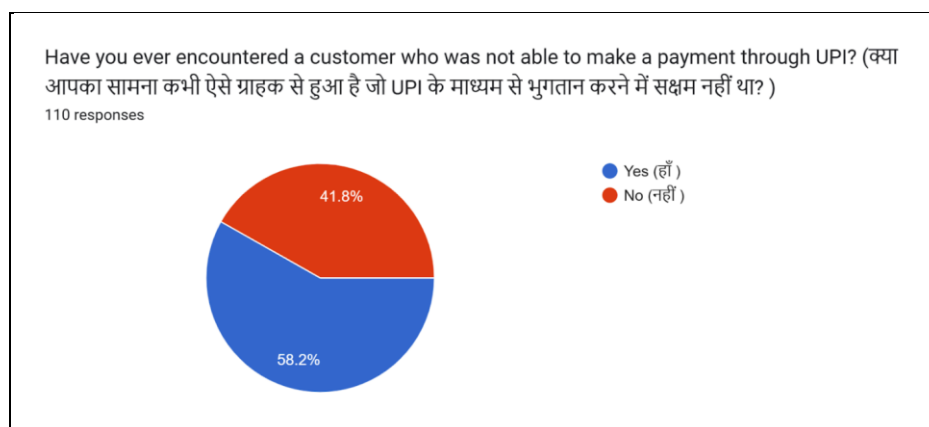


Figure 5.31: Customer interaction in UPI Payment

About 58.2% SVs responded that they have encountered a customer who was not able to make a payment through UPI. While, 41.8% SVs informed that they not faced any customer who could not make payment through UPI.

5.7.36. Charge for receiving UPI payment

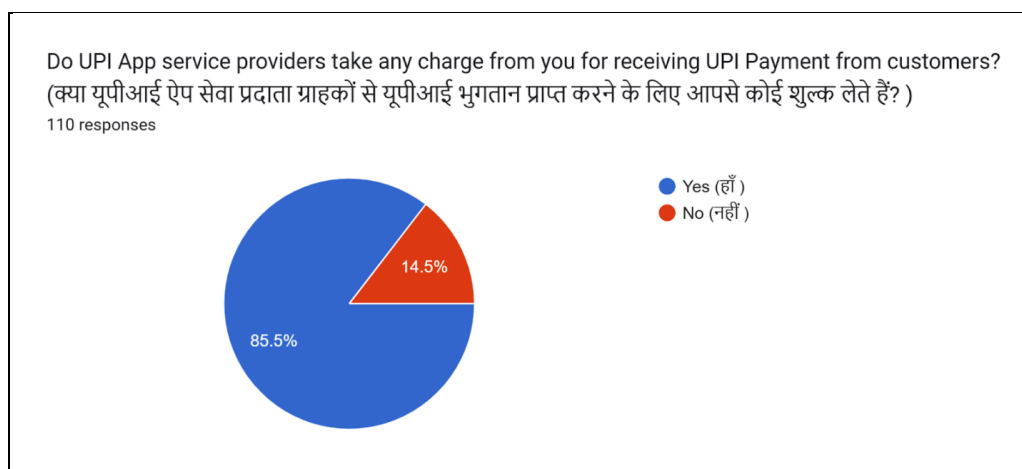


Figure 5.32: Charge for receiving UPI payment

This question was asked to explore whether UPI App service providers take any charge from SVs for receiving UPI Payment from customers. In this regard, majority of SVs (85.5%) responded that UPI App service providers take any charge from SVs for receiving UPI Payment from customers. While some SVs informed that they are not aware about it. However they agreed that some monthly amount is being deducted by UPI App service providers. About 14% SVs informed that UPI App service providers do not take any charge from them for receiving UPI Payment from customers.

5.7.37. Charge taken by UPI App Service providers

SVs informed that following charges are taken by UPI App service providers:-

- (i) Rs. 125 per month – for QR code Scanner with UPI Sound Box
- (ii) Rs. 99 or Rs.100 per month – for QR code without UPI sound box

5.7.38. Suggestions for making UPI payments easier

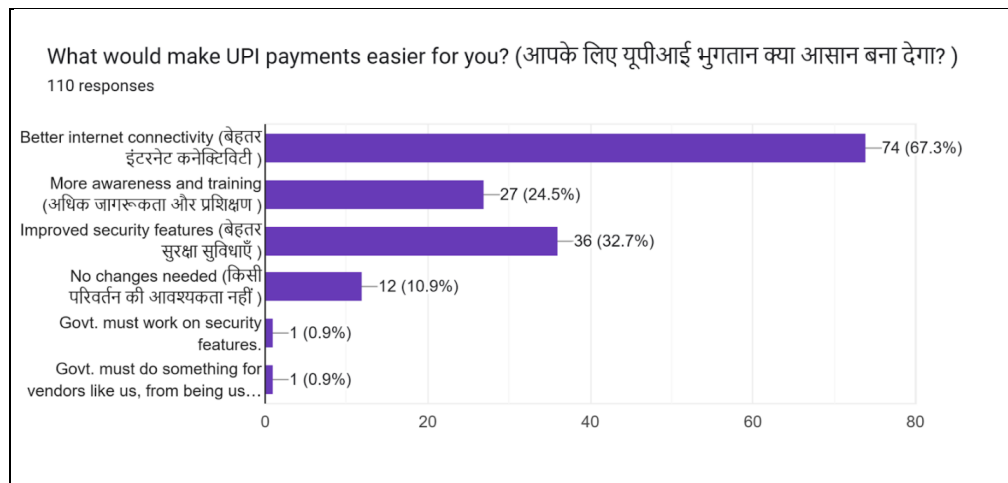


Figure 5.33: Suggestions for making UPI payments easier

This question was aimed to find out options which would make UPI payments easier for SVs. Majority of SVs (about 67.3%) responded that Better Internet Connectivity would make UPI payments easier for them. About 32.7% SVs informed that improved security features would make UPI payments easier for them. 24.5% SVs responded that more awareness and training would make UPI payments easier for them.

5.7.39. Recommendation of UPI to other street vendors

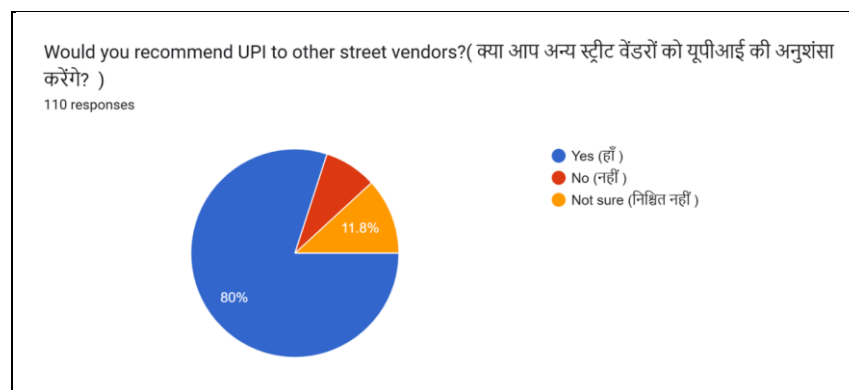


Figure 5.34: Recommendation of UPI to other street vendors

This question was aimed to know popularity of UPI payment. Majority of SVs 80% responded that they would recommend UPI to other street vendors. While, only 11.8% SVs were not sure for recommendation of UPI Payment to other SVs. It signifies that UPI payment method is the most popular method among SVs.

5.7.40. Support from government or other organization to street vendors

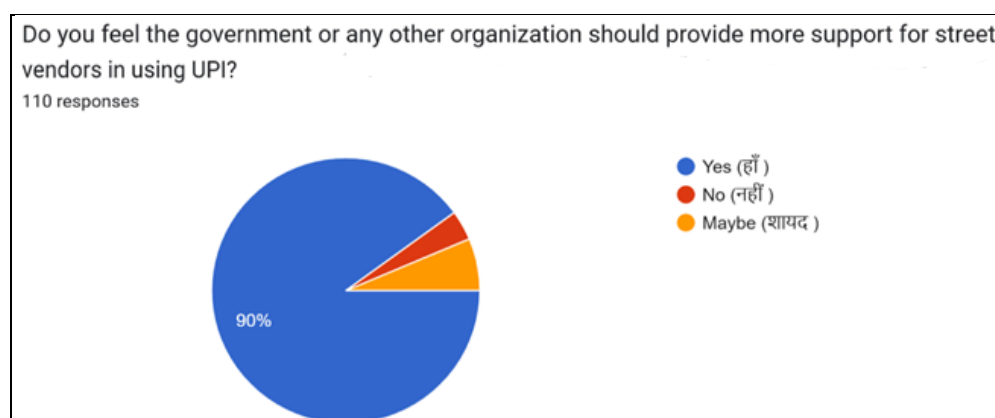


Figure 5.35: Support from government or other organization to street vendors

This question was aimed to know general perception of SVs whether they require any support in UPI payment system. Majority of SVs 90% responded that government or any other organization should provide more support to them in using UPI. During conversation with SVs, they informed that Government should take strict action against fraudsters and mobile network connectivity should be improved. Some of the SVs also suggested that Government/ any organization should provide them loan with minimum interest rate so that they can also grow their business.

5.8. Conclusion

The chapter delves into the transformative effects of the Unified Payments Interface (UPI) on street vendors in Delhi, highlighting how this digital payment platform has revolutionized their business operations. Historically dependent on cash transactions, these vendors now leverage UPI to enhance sales, improve customer trust, and streamline their financial processes.

On the whole the responses to the questionnaire indicate that UPI payment system is popular not only among SVs but also among customers. Majority of SVs accept payment from their customers in mode of cash as well as UPI. However, majority of SVs responded that UPI payments is convenient than cash payments. Most of the SVs confirmed that they face technical issues while receiving payments through UPI Occasionally. Some time UPI payment does not go through due to weak mobile network connectivity, technical issues. While some SVs who are not literate, they have lack of understanding of UPI App.

As majority of surveyed SVs were having their educational qualification upto primary or matriculation level, they were not very much aware how to secure their UPI payment. Generally, they monitor their UPI transaction daily. Majority of SVs have responded that Better Internet Connectivity would make UPI payments easier for them.

Although a lot of efforts have been put in place by the Government and other organization like NPCI for effective implementation of UPI payment system yet mobile network connectivity, technical difficulties, fraud & security concerns are some issues which need to be addressed.

Chapter 6

Data Analysis and Findings on Research survey of the Street vendors who have not adopted UPI

6.1. Introduction

Over the past few years, the introduction of Unified Payments Interface (UPI) has revolutionized the way we make financial transactions in India. With its easy-to-use features and widespread acceptance, UPI has brought digital payments closer to millions. However, not all sectors have embraced this change equally. One such group is the street vendors in Delhi, many of whom still rely on traditional cash transactions, avoiding digital platforms like UPI.

This chapter explores the findings from a survey conducted with street vendors in Delhi who have yet to adopt UPI. The aim is to understand why some vendors continue to prefer cash over digital payments, despite UPI's growing presence in the country.

Ultimately, the goal of this chapter is to provide a clearer picture of the barriers faced by street vendors, and how these insights can guide future efforts to make digital payments more accessible and trustworthy for them.

6.2. Detail of the Research Survey

In order to assess why some vendors are not using UPI payment for receiving payment from their customers a survey was conducted through questionnaire using Google Form. The survey was conducted with street vendors working in different

sectors in different parts of Delhi during the months of January, February and March 2025.

Questionnaire for the Street vendors who have not adopted UPI:

The Questionnaire had 17 questions. The first 7 questions in the questionnaire were focused on demographic information of street vendors of Delhi. Questions 8 to 9 were aimed at assessing the Technology access by street vendors. Questions 10 to 11 were related to know awareness of UPI & Digital Payments. Questions 12 to 13 were intended to find out barriers in UPI adoption. Question 14 was focused on knowledge & training. Questions 15 to 17 were asked to know customer preferences and usage. Special care was taken to administer the questionnaire both in English and Hindi language for maximum outreach and wider participation.

During field research survey, it was very difficult to find street vendors who are not using UPI payment method. Due to paucity of time, responses were collected from only 35 street vendors of Delhi who are not using UPI payment system. Many of street vendors were reluctant to provide requisite information. They were in impression that their personal information shall be disclosed to everyone. They were ensured that their responses like personal detail shall not be disclosed and confidentiality shall be maintained.

The analysis of the response to each question has been done by correlating it with inputs gathered during the field survey. A copy of the questionnaire is placed at

Appendix B.

Similarly, a copy of the questionnaire and responses of Financial Expert is placed at

Appendix C.

6.3. Demographic Information

Demographic information of 35 responses of street vendors of Delhi who are using UPI was analyzed and same is tabulated as following **Table 6.1**.

Table 6.1 Demographic Information

S.No.	Particulars	Classifications	No. of Responses	Percentage %
1	Gender	Male	23	65.71
		Female	12	34.29
		Total	35	100
2	Age	18-30	6	17.14
		31-40	6	17.14
		41-50	13	37.14
		51-60	10	28.57
		Total	35	100
3	Educational Qualification	No formal education	15	42.86
		Primary	14	40.00
		Matriculation(10th)	5	14.29
		Senior Secondary (12th)	1	2.86
		Total	35	100
4	No. of Years working as Street Vendor	Less Than one Year	4	11.43
		1-3 Years	9	25.71
		4-6 Years	2	5.71
		More than 6 years	20	57.14
		Total	35	100
5	Type of product Selling	Balloons, Toys	1	2.86
		Clothing	1	2.86
		Clothing , Household items	1	2.86
		Electronics	3	8.57
		Food and beverages	7	20.00
		Fruits	7	20.00
		Household items	2	5.71

	Jhaalmuri	1	2.86
	Local sunglasses and slippers	1	2.86
	Shoe Polish	1	2.86
	Vegetables	9	25.71
	Vegetables, Fruits	1	2.86
	Total	35	100

(Sources: interview data from field survey)

The survey gathered demographic details to better understand the street vendors who have not adopted UPI. Vendors from different areas of Delhi were included, representing a mix of ages, genders, and education levels.

The survey's demographic analysis indicated that many non-UPI adopters are in the 41 to 60 age group, many of whom have been running their businesses for years and are more comfortable with cash transactions. This suggests a generational gap in technology adoption, where older vendors may have less exposure to digital tools, contributing to a reliance on cash transactions. Most vendors had limited formal education (either no formal education or at primary level), which might contribute to their reluctance or difficulty in using digital payment systems. This demographic breakdown helps to highlight the factors that may be preventing these vendors from transitioning to digital payments.

6.4. Findings and analysis of the Research Survey

As mentioned above, Research survey was carried out with 35 street vendors in different parts of Delhi. Their responses on different questions are mentioned as below:-

6.4.1. Gender of respondents

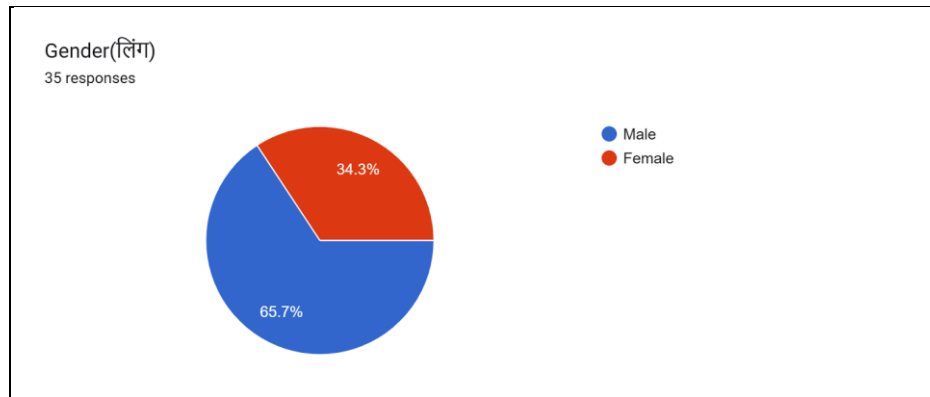


Figure 6.1: Gender of respondents

During research survey, it was found that majority of street vendors are male. This research survey was conducted on 65.7% Male and 34.3% Female street vendors (SVs).

6.4.2. Educational Qualification of respondents

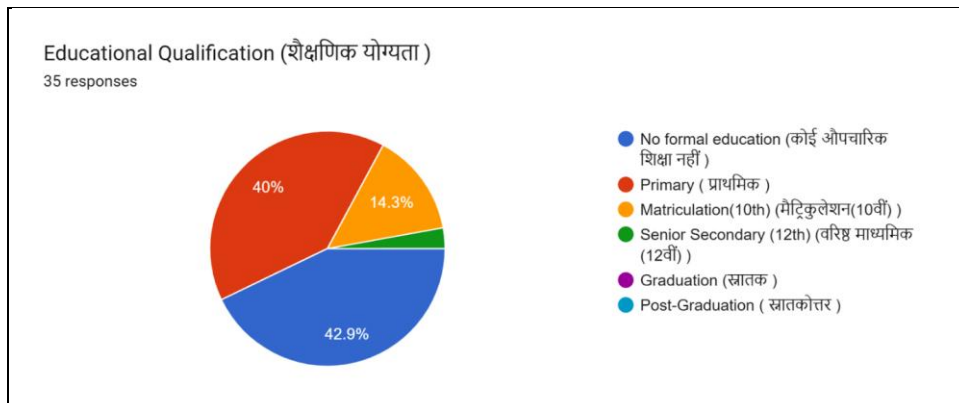


Figure 6.2: Educational Qualification of respondents

Majority of SVs who have not adopted UPI, their educational qualification is either no formal education or primary level. 42.9% SVs were found that they have no formal education, while educational qualification of 40% SVs was primary level.

The limited formal education of these vendors (42.9% having no formal education) further exacerbates this issue, as it may hinder their ability to navigate new technologies effectively.

6.4.3. Duration of street vendor business

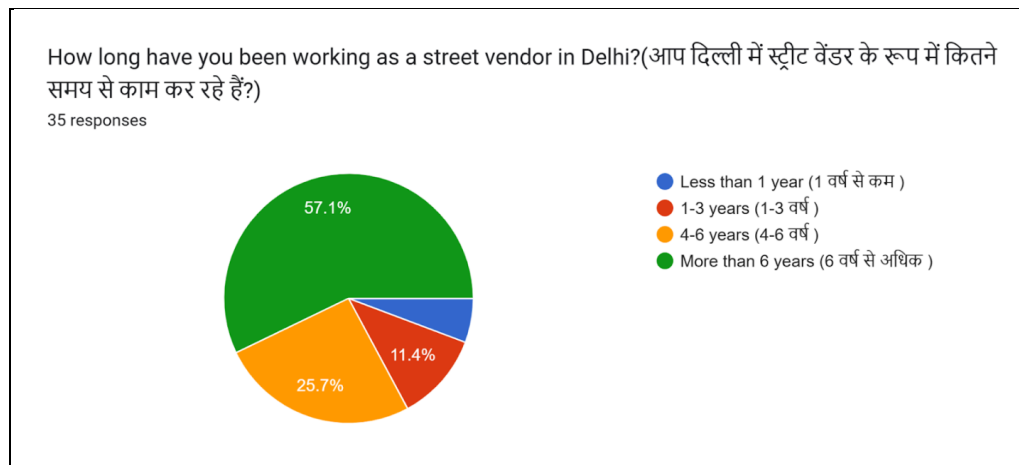


Figure 6.3: Duration of street vendor business

During research survey it was found that Majority of SVs (57.1%) had been working as street vendor since more than 6 years.

6.4.4. Owning smartphone

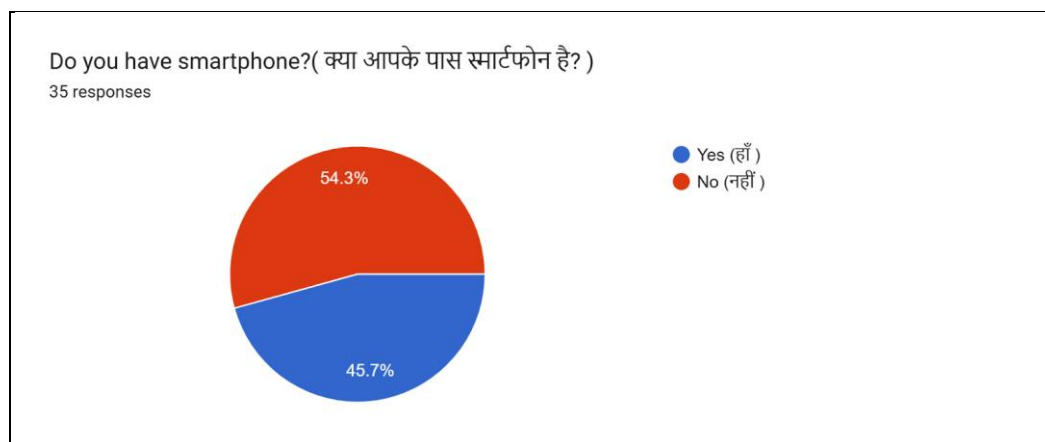


Figure 6.4: Owning smartphone

The question was asked to know technology access among street vendors who are not using UPI payment method. About 54.3% SVs informed that they do not have Smart phone. While, about 45.7% SVs informed that they are having smart phone.

The lack of access to smartphones among over half of the respondents is a critical barrier to adopting UPI. This lack of technological infrastructure not only limits their ability to engage with digital payment systems but also highlights the need for initiatives aimed at increasing smartphone accessibility for low-income vendors. Programs that provide affordable devices or subsidized smartphone access could bridge this gap.

6.4.5. Access to internet connection

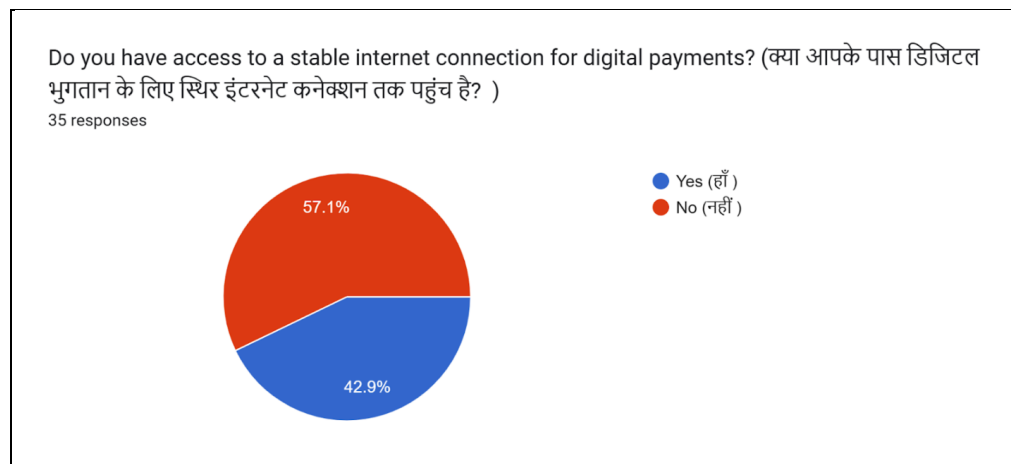


Figure 6.5: Access to internet connection

Aim of this question was to know whether SVs access to a stable internet connection for digital payments. In this regard, about 57.1% SVs agreed that they do not have access to a stable internet connection for digital payments. While, only 42.9% agreed that they have access to a stable internet connection for digital payments.

The majority of surveyed vendors reported not having access to stable internet connections, which is vital for UPI transactions. This finding indicates a need for infrastructural improvements in the areas where street vendors operate. Collaborations with internet service providers could lead to solutions that enhance connectivity for these vendors, thereby facilitating smoother digital transactions.

6.4.6. Awareness of UPI

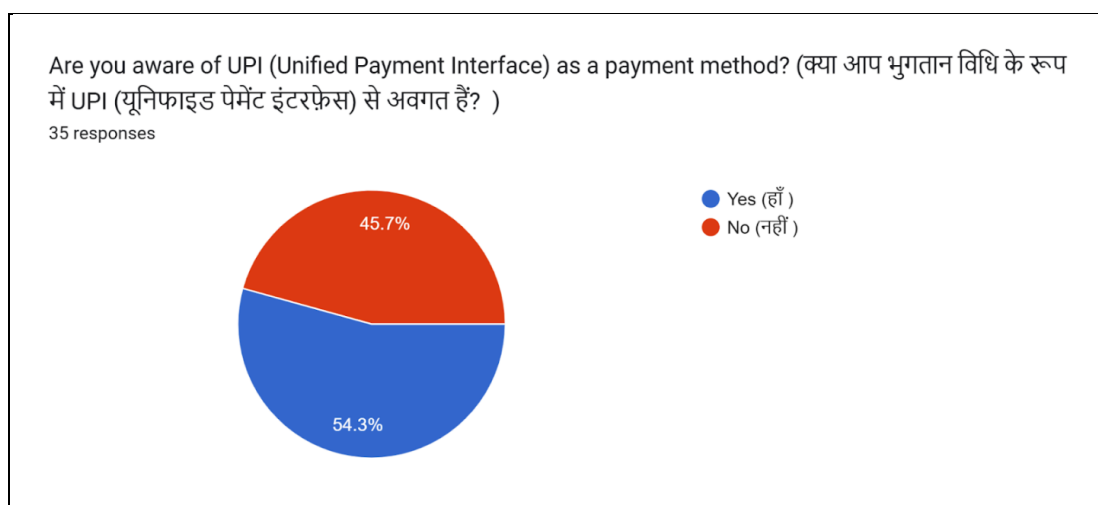


Figure 6.6: Awareness of UPI

The question was aimed to know awareness of UPI and digital payments among SVs , who are not using it. It was found that 54.3% SVs were aware about UPI payment method and 45.7% SVs were not aware about UPI payment method. It indicates that digital literacy level of these SVs was low.

Although more than half of the vendors were aware of UPI, the fact that a significant portion has never used it highlights a gap in practical knowledge and digital literacy. This lack of engagement suggests that awareness campaigns need to go beyond mere information dissemination. They should include hands-on training sessions that

demonstrate how to use UPI effectively, addressing fears and misconceptions about digital payments.

6.4.7. Introduction with UPI

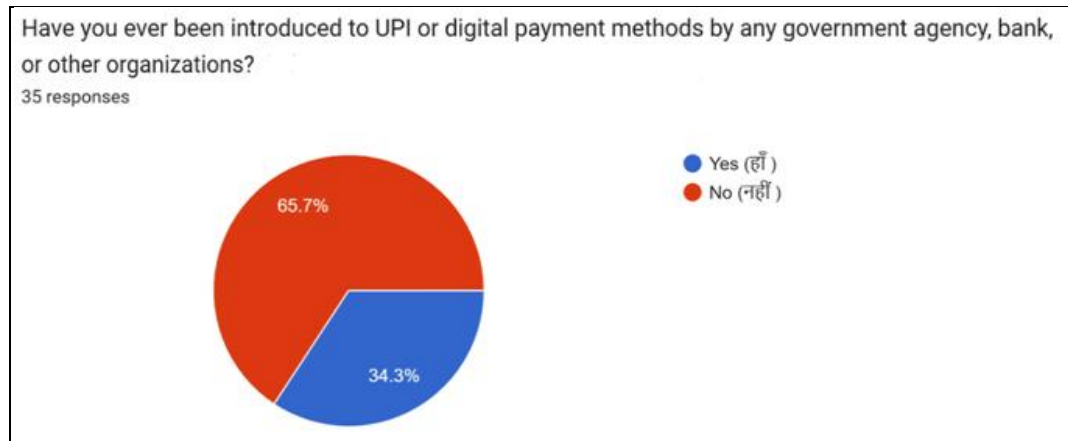


Figure 6.7: Introduction with UPI

Majority of SVs (about 65.7%) responded that they have not been introduced to UPI or digital payment methods by any government agency, bank, or other organizations. While only 34.3 % of SVs responded that they have been introduced to UPI or digital payment methods by any government agency, bank, or other organizations.

It indicates that sufficient efforts were not made by Govt. agency, bank or other organization for increasing adoption level of UPI payment system.

6.4.8. Use of UPI payments

The question was intended to know experience of SVs whether they have used UPI payment for any transaction (personal or business). In this regard, majority of SVs (about 82.9%) informed that they have not used UPI payments for any transaction (personal or business).

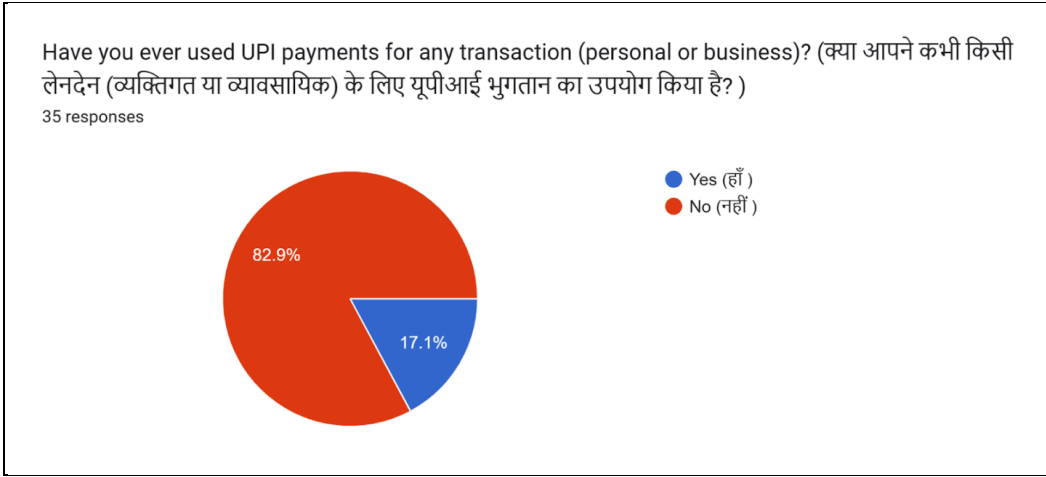


Figure 6.8: Use of UPI Payments

6.4.9. Reasons for not using UPI Payment

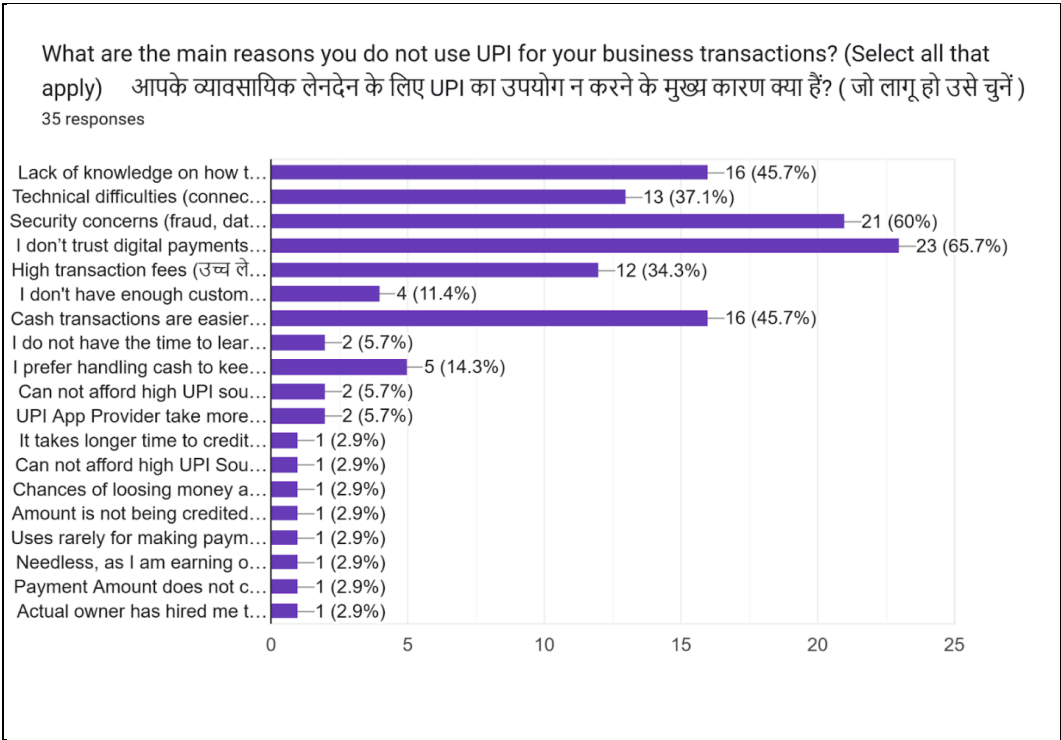


Figure 6.9: Reasons for not using UPI Payment

The question was aimed to know reasons for which some SVs are not using UPI payment for their business transaction. Majority of SVs responded that they are not using UPI payment because they don't have trust on digital payments and there are Security concerns like (fraud, data theft).

Apart from this, other SVs have informed following reasons for not using UPI payment system:-

- (i) Lack of knowledge on how to use UPI
- (ii) Technical difficulties (connectivity issues)
- (iii) High transaction fees
- (iv) Cash transactions are easier
- (v) I don't have enough customers who prefer UPI
- (vi) I do not have the time to learn about UPI
- (vii) I prefer handling cash to keep my business simple
- (viii) Cannot afford high UPI sound box charges
- (ix) UPI App Providers take more charges
- (x) It takes longer time to credit payment in my account
- (xi) Chances of losing money are quite higher
- (xii) Amount not credit immediately in UPI
- (xiii) Owner has hired me to sell the products in cash only
- (xiv) Earning only few hundred rupees and that cash can easily be used to mitigate my day to day requirements
- (xv) Payment amount does not credit in my bank account immediately

A significant number of vendors cited trust issues as a reason for not using UPI, stemming from fears of fraud and data theft. Building trust in digital payment

systems is crucial for their adoption. Initiatives that focus on educating vendors about security measures in place, as well as testimonials from other vendors who have successfully transitioned to digital payments, could help alleviate these concerns.

6.4.10. Support from government or private organizations

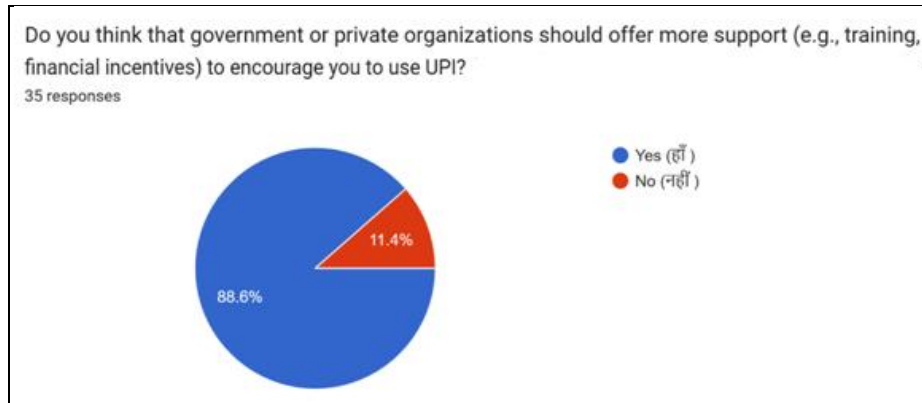


Figure 6.10: Support from government or private organizations

This question is related to know how to encourage for adoption of UPI Payment. Majority of SVs (88.6%) responded that government or private organizations should offer more support (e.g., training, financial incentives) to encourage to use UPI.

There is a clear demand for structured programs that offer training and financial incentives. Partnerships with local governments and financial institutions could facilitate the creation of tailored training workshops that not only inform vendors about UPI but also provide them with the technical skills required to utilize it effectively.

6.4.11. Customers perspective for UPI Payment

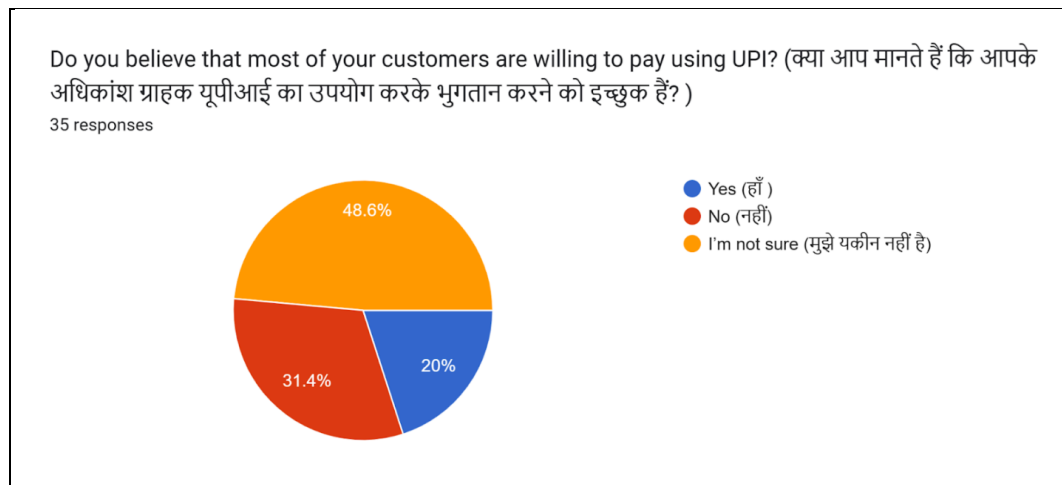


Figure 6.11: Customers perspective for UPI Payment

The question was aimed to know customer preferences and usage w.r.t. payment. Majority of SVs (48.6%) responded that they are not sure whether most of their customers are willing to pay through UPI.

6.4.12. Relation of UPI payment with number of customers

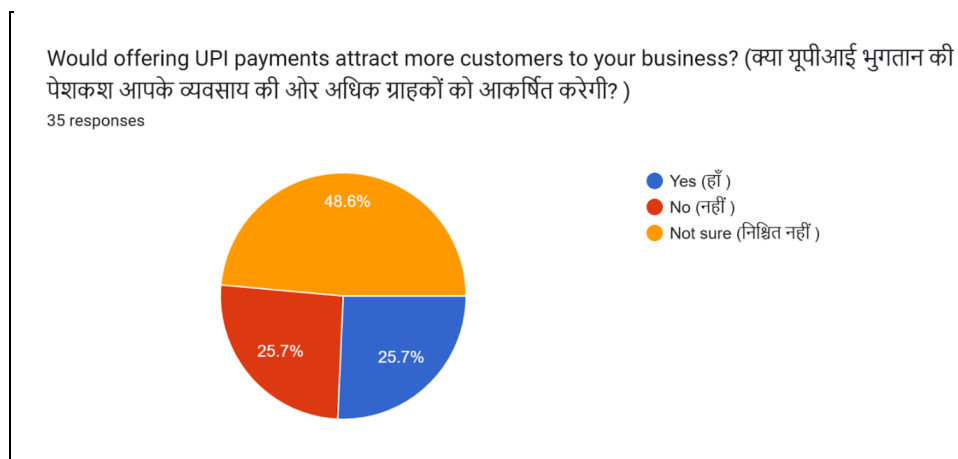


Figure 6.12: Relation of UPI payment with number of customers

The question was intended to know whether UPI payments will attract more customers to their business. In this regard, 48.6% majority of SVs responded that they are not sure about it. While 25.7% & 25.7% were agree and not agree respectively.

6.4.13. Incentives to adopt UPI

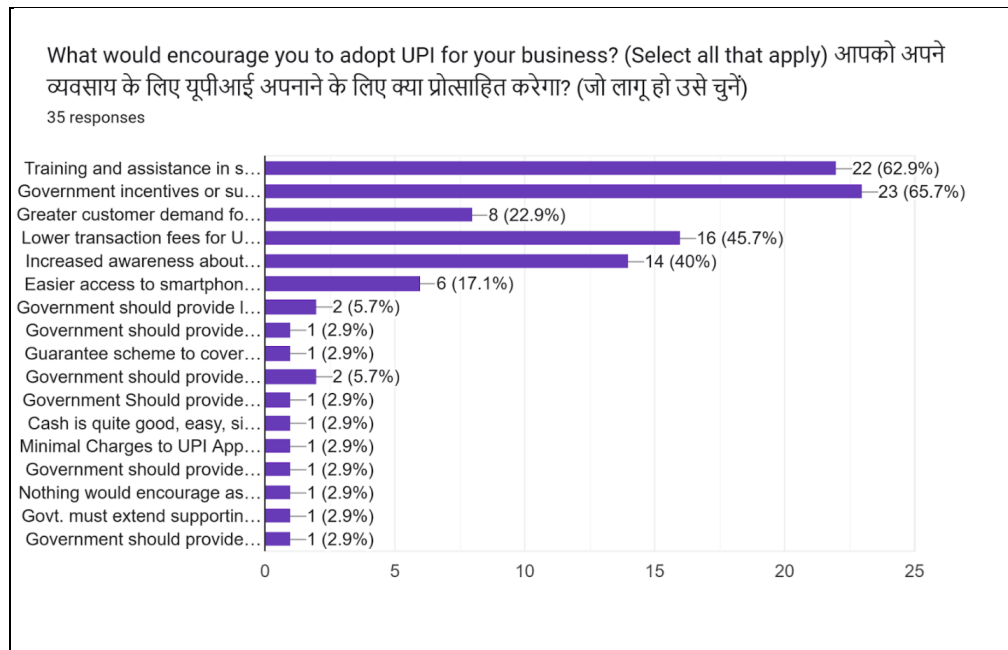


Figure 6.13: Incentives to adopt UPI

The question was related to find out the ways which would encourage for adoption of UPI. Majority of SVs (65.7%) has responded that Government incentives or subsidies will encourage them to adopt UPI. Similarly, about 62.9% SVs has responded that Training and assistance in setting up UPI would encourage them to adopt UPI.

Other respondents have provided following options, which would encourage them to adopt UPI:-

- (i) Greater customer demand for UPI

- (ii) Lower transaction fees for UPI
- (iii) Increased awareness about UPI's security and benefits
- (iv) Easier access to smartphones and internet connection
- (v) Cash is quite good, easy, simple and secure
- (vi) Nothing would encourage as managing cash is easy as compare to UPI

The desire for government incentives and training as motivating factors for adopting UPI underscores the importance of a supportive ecosystem. Financial incentives, such as subsidies for transaction fees or assistance with the costs associated with adopting digital payment infrastructure, loan with minimum interest rate could significantly encourage street vendors to make the transition. Moreover, campaigns that highlight the potential increase in customer traffic due to UPI acceptance could also serve as a persuasive factor.

6.5. Conclusion

This chapter delves into the data analysis and findings from a research survey conducted with street vendors in Delhi who have not adopted the Unified Payments Interface (UPI). The survey aimed to uncover the reasons behind this reluctance, exploring factors such as digital literacy, accessibility to technology, and trust issues related to digital payments. The awareness about UPI payment system was not found satisfactory among these street vendors. Main obstacles in adopting UPI payment system among SVs of Delhi were lack of trust on digital payment systems, including security concerns, connectivity issues, varying levels of digital literacy, more dependency on cash payment, high charges of UPI sound box, delay in credit of UPI amount in bank account, fear of losing their money.

The findings reveal demographic trends, technology access, and barriers to UPI adoption, ultimately highlighting the need for targeted support from government and private organizations to facilitate a smoother transition towards digital payment systems for these vendors.

Chapter 7

Conclusion & Recommendations

7.1. Introduction

This Research study has explored how UPI is changing the way street vendors in Delhi to handle their payments and manage their businesses. It has highlighted both the benefits and the challenges they face in adopting digital payments. As we reach the final chapter, we reflect on the key takeaways from the research and what they mean for financial inclusion. This chapter also provides practical recommendations to make UPI more accessible and useful for street vendors, helping them grow their businesses and improve their financial security.

7.2. Major findings of the Research Study

On the basis of literature review, field survey with street vendors of Delhi who are using UPI & who have not adopted UPI and interview/meetings with financial expert and Bank officials, several major findings have emerged from the research study. Some major findings of the research study have been furnished as below:-

7.2.1. For Street vendors (SVs) of Delhi, who are using UPI

- UPI is one of the most preferred digital payments in India.
- UPI has not only made financial transactions secure, fast and effortless, but it has also empowered individuals, small businesses, merchants, and street vendors in driving the country's economy toward a cashless.
- UPI's adoption was particularly increased during the Covid-19 pandemic, as people sought safer, contactless alternatives to cash transactions.

- QR code with Voice Boxes for UPI Payment has facilitated to adopt UPI among street vendors who are not even formally educated.
- UPI has provided flexibility for users to choose their preferred payment apps (like Google pay, Phone pay, Paytm etc.) , regardless of the bank where their account is held.
- UPI has been the most significant contributor to the growth of digital payments in India. Its contribution to digital payments volume surged from 34% in CY-2019 to an impressive 83% in CY-2024, with a remarkable CAGR of 74% over five years.
- UPI P2M transaction volume has surpassed the UPI P2P transaction volumes since 2023. However, in value terms, the UPI P2P transaction value is still higher than UPI P2M transaction values.
- Pradhan Mantri Jan Dhan Yojana and PM Street Vendor's AtmaNirbhar Nidhi, have helped to underprivileged groups, especially street vendors, in obtaining credit and financial literacy.
- 83.6% of vendors owning smartphones, which indicates that the accessibility of technology significantly contributes to UPI's adoption
- 100% SVs accept payment from their customers in mode of cash as well as UPI. However, majority of SVs (61.8%) have reported that UPI payments is convenient than cash payments
- 93.6% of vendors reported not receiving formal training on using UPI. It indicates a critical gap in knowledge that could hinder effective usage of the UPI platform.
- Majority of SVs 47.3% responded that they receive 51%-75% of total sales through UPI.

- Majority of SVs 95.5 % prefer QR code method for receiving UPI payment from customers. As, QR code is very convenient to use.
- Most of the SVs confirmed that they face technical issues while receiving payments through UPI Occasionally.
- Majority of SVs about 86.4% informed that most of customers prefer paying through UPI. It indicates that more number of customers do transaction through UPI payment.
- Majority of SVs (99.1%) do not get any incentives (like offer/ discounts) from UPI App. Service Providers for receiving payment by customers through UPI.
- Majority of SVs (about 91.8%) responded that UPI payments have made it easier for customers to buy from them.
- Majority of street vendors (97.3%) reported that they have bank accounts and 75.5% SVs receives UPI payments directly in their bank accounts, showcasing the positive impact of UPI on financial inclusion
- Majority of SVs (61.8%) informed that UPI payments help to reduce the risk of theft or loss of cash. As it is a digital payment so there is no chances of theft or loss of cash.
- Majority of SVs informed that they generally do transaction with other merchants in the form of both UPI and cash. However, few SVs responded that they use only cash transaction with other merchants.
- Majority of SVs (63.6%) informed that they have faced challenges of Network issues while using UPI. Due to Low or weak connectivity of mobile network, sometimes UPI payment does not go through.
- Majority of SVs (85.5%) responded that UPI App service providers take charge from SVs for receiving UPI Payment from customers

- Majority of SVs 90% responded that government or any other organization should provide more support to them in using UPI

7.2.2. For Street Vendors (SVs) of Delhi, who have not adopted UPI

- Majority of SVs who have not adopted UPI, their educational qualification is either no formal education or primary level.
- Majority of SVs (57.1%) had been working as street vendor since more than 6 years.
- About 54.3% SVs do not have Smart phone. While, about 45.7% SVs informed that they are having smart phone.
- Majority of SV (57.1%) agreed that they do not have access to a stable internet connection for digital payments
- Majority of SVs are not using UPI payment because they don't have trust on digital payments and there are Security concerns like (fraud, data theft).
- Majority of SVs (88.6%) responded that government or private organizations should offer more support (e.g., training, financial incentives) to encourage to use UPI.

7.3. Conclusion

The adoption of the Unified Payment Interface (UPI) has played a transformative role in enhancing financial inclusion among street vendors in Delhi. Through this study, it is evident that UPI has significantly improved the accessibility, efficiency, and security of financial transactions for street vendors. The convenience of digital payments has empowered vendors by reducing their dependency on cash, minimizing transaction costs, and increasing overall business efficiency.

The research highlights that a large proportion of street vendors have successfully integrated UPI into their daily business operations, leading to quicker transactions, improved customer satisfaction, and better financial management. The ease of use and growing customer preference for digital payments has encouraged vendors to adopt UPI, further strengthening their financial independence.

However, the study also revealed certain challenges, such as lack of trust on digital payment systems, including security concerns, connectivity issues, varying levels of digital literacy, more dependency on cash payment, high charges of UPI sound box, delay in credit of UPI amount in bank account, inconsistent internet connectivity, and occasional technical glitches, which hinder the seamless adoption of UPI. Furthermore, awareness of UPI, coupled with trust issues surrounding digital payments, continues to hinder adoption rates.

Despite these challenges, the overall response from street vendors has been positive, with most acknowledging the long-term benefits of transitioning to digital payments.

To address these challenges, strategic interventions are necessary. Stakeholders, including government agencies and private organizations, should prioritize efforts to increase technology access, enhance digital literacy, and build trust in digital payment systems. By providing targeted support and incentives, stakeholders can facilitate a transition towards greater financial inclusion for street vendors, ultimately bridging the digital divide in the payment landscape.

The survey reveals a critical need for initiatives aimed at improving technology access, providing formal targeted training, and enhancing digital infrastructure to support the growing demand for digital payments.

In summary, UPI has emerged as a key enabler of financial inclusion, fostering greater economic participation and security for street vendors in Delhi. Its role in bridging the gap between traditional cash-based transactions and modern digital payments has been pivotal in transforming the business landscape for this segment.

7.4. Recommendations

Based on the findings of this study, the following recommendations are proposed to enhance the adoption and effectiveness of UPI among street vendors in Delhi:

7.4.1. Digital Literacy and Training Programs

In the research study it has found that some street vendors have limited digital literacy, which also affects adoption of UPI. In order to minimize this gap targeted digital literacy workshops should be organized to educate street vendors about the benefits and functioning of UPI. Simplified training modules should be developed to address the specific needs and technological understanding of this segment. Many vendors remain skeptical about UPI due to concerns over failed transactions, delayed payments, and fraud risks hesitation. To overcome this, government-backed ‘Digital Payment Awareness Camps’ should be conducted in major vendor hubs, where experts can demonstrate real-time transactions and explain the process in simple terms. Vendors should be reassured that in case of transaction failures or fraud, quick dispute resolution mechanisms are available. A dedicated customer support system should be set up with representatives who can assist vendors in resolving payment-related issues efficiently.

7.4.2. Improving Internet Connectivity

Many Street vendors are facing challenges of Network issues like low speed of internet while using UPI. In order to improve network connectivity and internet speed, network infrastructure should be strengthened, particularly in busy market areas, dense population areas and high rise buildings where street vendors operate. Collaborating with telecom service providers to ensure stable and affordable internet access will support uninterrupted digital transactions.

7.4.3. Technical Support and Customer Service

During failure of UPI transaction vendors as well as customers become helpless. Generally, their issues are not resolved immediately, sometimes it take even one week or more to resolve their payment failure issues. To resolve such issue, a dedicated helpline and on-ground support team should be established to assist vendors in resolving technical issues related to UPI. Quick resolution of transaction failures and system glitches will build trust and confidence among users. All banks should come forward and appoint separate nodal officers or representatives to provide technical support and handle grievances relating to failure of UPI transactions.

7.4.4. Incentivizing Adoption

As we have seen that UPI has become popular among customers because of some cash back offers have been provided by various payment service providers during their UPI payment. Similarly, incentives such as cash back offers, reduced transaction fees, and rewards for consistent UPI use can be

introduced by payment service providers. Partnering with financial institutions to create vendor-friendly schemes can further motivate adoption.

7.4.5. Security Enhancements and Fraud Prevention

Some street vendors hesitate to adopt UPI due to security reasons and apprehension of fraud. In order to build trust among street vendors in use of UPI, security protocols can be strengthened. So that it can prevent fraud and unauthorized access. Educating vendors about safe practices and how to identify suspicious activities will help in safeguarding their financial transactions.

7.4.6. Need for Comprehensive Data Protection Guidelines for Both vendors and Consumers

The government should establish clear vendor & customer friendly data protection policies to safeguard financial transactions and personal information. Vendors should be educated about these security measures to build trust in digital payments. Also, Regular updates and security patches in UPI applications should be mandated to prevent cyber threats and frauds. Ensuring data protection and transaction security will significantly boost vendors' confidence in digital payments.

7.4.7. Partnering with Community Leaders and Local Influencers to Spread Awareness and Build Trust

Building trust is crucial for UPI adoption, and one of the most effective ways to achieve this is by partnering with local community leaders and influencers who have credibility among street vendors. Market association heads, local shopkeepers, and community elders should be engaged to promote digital payments.

7.4.8. Installation of Free Wi-Fi Hotspots in Key Vendor Areas

One of the technical challenges preventing vendors from using UPI is unreliable internet connectivity. To address this, the government, in collaboration with telecom service providers, should install free Wi-Fi hotspots in key street vendor zones such as weekly markets, roadside clusters, and major commercial hubs. Telecom companies can also introduce special data plans with free or discounted UPI usage for small vendors. Ensuring uninterrupted internet access will encourage more vendors to shift towards digital payments.

7.4.9. Subsidizing Smartphones for Small Vendors

During research it was found that some small street vendors do not possess smart phone. This may be one hindrance in adoption of UPI. The government should introduce subsidized smartphone schemes or provide financial assistance through micro-loans and easy EMIs for purchasing digital payment-compatible devices. Trade-in programs where vendors can exchange basic feature phones for affordable smartphones should also be considered.

7.4.10. Zero/Minimum Transaction Fees for Small Vendors

Many vendors avoid UPI due to concerns over transaction fees, which are taken by UPI payment service providers on monthly basis. To encourage adoption, the government should collaborate with payment service providers to introduce zero or minimal transaction fees for small vendors earning below a certain threshold.

7.4.11. Integration with Government Schemes for Financial Inclusion

Linking UPI transactions with existing government schemes can provide additional incentives for street vendors to adopt digital payments. For example, vendors using UPI for transactions should be given priority in loan disbursements under schemes like PM SVANidhi. Additionally, the government can offer discounts on vendor licensing fees or municipal charges for those conducting a significant percentage of their business digitally.

By implementing these recommendations, the adoption and impact of UPI among street vendors in Delhi can be further optimized, ensuring that financial inclusion becomes more sustainable and beneficial for this crucial segment of the economy.

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APPENDIX – A

Research Study on “Impact of Unified Payment Interface (UPI) in financial inclusion on Street Vendors of Delhi”

(Questionnaire focused on understanding impact of Unified Payment Interface (UPI) on street vendors of Delhi as digital payments)

(प्रश्नावली डिजिटल भुगतान के रूप में दिल्ली के सड़क विक्रेताओं पर यूनिफाइड पेमेंट इंटरफेस (यूपीआई) के प्रभाव को समझने पर केंद्रित है)

This survey is part of an Academic research aimed at understanding the impact of UPI (Unified Payments Interface) on financial inclusion for street vendors in Delhi. Your participation is invaluable, and your responses will help us gain deeper insights into the adoption and challenges faced by street vendors in using digital payment methods.

यह सर्वेक्षण एक अकादमिक शोध का हिस्सा है जिसका उद्देश्य दिल्ली में स्ट्रीट वेंडरों के वित्तीय समावेशन पर यूपीआई (यूनिफाइड पेमेंट इंटरफेस) के प्रभाव को समझना है। आपकी भागीदारी अमूल्य है, और आपकी प्रतिक्रियाएँ हमें डिजिटल भुगतान विधियों को अपनाने और सड़क विक्रेताओं द्वारा सामना की जाने वाली चुनौतियों के बारे में गहरी जानकारी प्राप्त करने में मदद करेंगी।

I. Demographic Information (जनसांख्यिकीय जानकारी)

1. **Name of the Respondent** (प्रतिवादी का नाम)
2. **Address/Place of Survey** (सर्वेक्षण का पता/स्थान).....
.....
3. **Age (आयु):**
4. **Gender(लिंग)**
5. **Educational Qualification** (शैक्षणिक योग्यता)
 - a) No formal education(कोई औपचारिक शिक्षा नहीं)
 - b) Primary (प्राथमिक)
 - c) Matriculation(10th) (मैट्रिकुलेशन(10वीं))
 - d) Senior Secondary (12th) (वरिष्ठ माध्यमिक (12वीं))
 - e) Graduation (स्नातक)
 - f) Post-Graduation (स्नातकोत्तर)
6. **What type of products do you sell?** (आप किस प्रकार के उत्पाद बेचते हैं?)
 - a) Food and beverages (भोजन और पेय पदार्थ)
 - b) Vegetables(सब्जियाँ)
 - c) Fruits(फल)

- d) Clothing (कपड़े)
- e) Household items(घरेलू सामान)
- f) Electronics(इलेक्ट्रॉनिक्स)
- g) Other (Please specify) ,अन्य (कृपया निर्दिष्ट करें).....

7. **How long have you been working as a street vendor?**(आप कब से स्ट्रीट वेंडर के रूप में काम कर रहे हैं?)

- a) Less than 1 year (1 वर्ष से कम)
- b) 1-3 years (1-3 वर्ष)
- c) 4-6 years (4-6 वर्ष)
- d) More than 6 years (6 वर्ष से अधिक)

8. **What is your primary source of income?** (आपकी आय का प्राथमिक स्रोत क्या है?)

- a) Street vending (स्ट्रीट वेंडिंग)
- b) Other business (अन्य व्यवसाय)
- c) Part-time job (अंशकालिक नौकरी)
- d) Other (Please specify) / अन्य (कृपया निर्दिष्ट करें).....

9. **Which area do you mainly operate your business in?** (आप मुख्य रूप से अपना व्यवसाय किस क्षेत्र में संचालित करते हैं?)

- a) Markets (बाजार)
- b) Street corners (सड़क के कोने)
- c) Near metro stations (मेट्रो स्टेशनों के पास)
- d) Parks (पार्क)
- e) Other (Please specify) / अन्य (कृपया निर्दिष्ट करें)

II. Technology Access and Awareness (प्रौद्योगिकी पहुंच और जागरूकता)

10. **Do you own a smartphone?** (क्या आपके पास स्मार्टफोन है?)

- a) Yes (हाँ)
- b) No (नहीं)

11. How did you get informed about UPI (Unified Payments Interface)? (आपको UPI (यूनिफाइड पेमेंट्स इंटरफेस) के बारे में जानकारी कैसे मिली?)

- a) Government campaigns (सरकारी अभियान)
- b) From other vendors (अन्य विक्रेताओं से)
- c) Through family or friends (परिवार या दोस्तों के माध्यम से)
- d) Through a mobile app advertisement (एक मोबाइल ऐप विज्ञापन के माध्यम से)
- e) Other (Please specify)/ अन्य (कृपया निर्दिष्ट करें).....

12. Which of the following payment options do you accept from customers? (आप ग्राहकों से निम्नलिखित में से कौन सा भुगतान विकल्प स्वीकार करते हैं?)

- a) UPI (यूपीआई)
- b) Cash (नकद)
- c) Both (दोनों)

13. Which UPI app do you use for payments? (आप भुगतान के लिए किस यूपीआई ऐप का उपयोग करते हैं?)

- a) Google Pay (गूगल पे)
- b) PhonePe (फोनपे)
- c) Paytm (पेटीएम)
- d) BHIM UPI (भीम यूपीआई)
- e) Amazon Pay (अमेज़न पे)
- f) Other (Please specify)/ अन्य (कृपया निर्दिष्ट करें).....

14. Do you understand how to use UPI? (क्या आप समझते हैं कि UPI का उपयोग कैसे करें?)

- a) Yes (हाँ)
- b) No (नहीं)

15. Have you received any formal training on how to use UPI? (क्या आपको यूपीआई का उपयोग करने के बारे में कोई औपचारिक प्रशिक्षण प्राप्त हुआ है?)

- a) Yes (हाँ)
- b) No (नहीं)

16. How did you install the UPI app on your phone? (आपने अपने फ़ोन पर UPI ऐप कैसे इंस्टॉल किया?)

- a) I installed it myself (मैंने इसे स्वयं स्थापित किया है)
- b) A friend/family member helped me (एक मित्र/परिवार के सदस्य ने मेरी मदद की)
- c) A shopkeeper/vendor helped me (एक दुकानदार/विक्रेता ने मेरी मदद की)
- d) I was assisted by a bank representative (मुझे एक बैंक प्रतिनिधि द्वारा सहायता प्रदान की गई)
- e) Other (Please specify)/ अन्य (कृपया निर्दिष्ट करें).....

III. Usage Patterns (उपयोग पैटर्न)

17. Why did you choose to accept UPI payments from customers? (आपने ग्राहकों से यूपीआई भुगतान स्वीकार करना क्यों चुना ?)

- a) To avoid handling cash (नकदी के लेन-देन से बचने के लिए)
- b) It is a faster and more secure payment method (यह एक तेज़ और अधिक सुरक्षित भुगतान पद्धति है)
- c) Customers prefer UPI for convenience (ग्राहक सुविधा के लिए यूपीआई को प्राथमिकता देते हैं)
- d) UPI transactions are easier to track for business purposes (व्यावसायिक उद्देश्यों के लिए यूपीआई लेनदेन को ट्रैक करना आसान है)
- e) All of the above (उपरोक्त सभी)

18. When you did first started accepting payments through UPI? (आपने पहली बार UPI के माध्यम से भुगतान स्वीकार करना कब शुरू किया?)

- a) Before the pandemic (COVID-19) (महामारी (कोविड-19) से पहले)
- b) During the pandemic (COVID-19) (महामारी (कोविड-19) के दौरान)
- c) After seeing other vendors using it (अन्य विक्रेताओं को इसका उपयोग करते हुए देखने के बाद)

d) I started accepting UPI after being asked by customers (मैंने ग्राहकों के कहने पर यूपीआई स्वीकार करना शुरू किया)

19. What percentage of your total sales do you receive through UPI? (आपको अपनी कुल बिक्री का कितना प्रतिशत UPI के माध्यम से प्राप्त होता है?)

- a) Less than 25% (25% से कम)
- b) 25%-50%
- c) 51%-75%
- d) More than 75% (75% से अधिक)

20. Do you find UPI payments is convenient than cash payments? (क्या आपको लगता है कि UPI भुगतान नकद भुगतान से अधिक सुविधाजनक है?)

- a) Yes (हाँ)
- b) No (नहीं)
- c) Sometimes (कभी-कभी)

21. Which UPI payment method do you prefer? (आप कौन सी यूपीआई भुगतान विधि पसंद करते हैं?)

- a) QR Code (क्यूआर कोड)
- b) UPI ID (Phone number or VPA) /यूपीआई आईडी (फोन नंबर या वीपीए)
- c) Both (दोनों)

22. What is the average amount of money you receive daily through UPI payments?(यूपीआई भुगतान के माध्यम से आपको प्रतिदिन प्राप्त होने वाली औसत धनराशि कितनी है?)

- a) Less than ₹100 (₹100 से कम)
- b) ₹100 - ₹500
- c) ₹500 - ₹1000
- d) ₹1000 - ₹1500
- e) ₹1500 - ₹2000
- f) More than ₹2000 (₹2000 से अधिक)

- 23. Have you faced any technical issues while receiving payments through UPI?** (क्या आपको UPI के माध्यम से भुगतान प्राप्त करते समय किसी तकनीकी समस्या का सामना करना पड़ा है ?)
- a) Yes (हाँ)
 b) No (नहीं)
 c) Occasionally (कभी-कभी)
- 24. If yes, please state about any technical issue.** (यदि हां, तो कृपया किसी तकनीकी समस्या के बारे में बताएं)
-
- 25. How do you handle UPI payment failures (e.g., if the transaction does not go through)?** (आप यूपीआई भुगतान विफलताओं (उदाहरण के लिए, यदि लेनदेन नहीं हो पाता) को कैसे संभालेंगे?)
- a) I retry immediately (मैं तुरंत पुनः प्रयास करता/ करती हूँ)
 b) I wait for a few minutes (मैं कुछ मिनटों तक प्रतीक्षा करता/ करती हूँ)
 c) I inform the customer to try again (मैं ग्राहक को पुनः प्रयास करने के लिए सूचित करता / करती हूँ)
 d) I do not know how to resolve the issue (मुझे नहीं पता कि इस मुद्दे को कैसे हल किया जाए)
- 26. How do you ensure your UPI account is safe from fraud?** (आप यह कैसे सुनिश्चित करते हैं कि आपका यूपीआई खाता धोखाधड़ी से सुरक्षित है?)
- a) I use a strong password/PIN (मैं एक मजबूत पासवर्ड/पिन का उपयोग करता/ करती हूँ)
 b) I do not share my details with anyone(मैं अपना विवरण किसी के साथ साझा नहीं करता/ करती)
 c) I monitor transactions regularly (मैं नियमित रूप से लेनदेन की निगरानी करता/ करती हूँ)
 d) I do not know how to secure my UPI account (मुझे नहीं पता कि मैं अपने यूपीआई खाते को कैसे सुरक्षित करूँ)

IV. Customer Interaction and Experience (ग्राहक संपर्क और अनुभव)

27. **Do most of your customers prefer paying through UPI?** (क्या आपके अधिकांश ग्राहक UPI के माध्यम से भुगतान करना पसंद करते हैं?)
- a) Yes (हाँ)
 - b) No (नहीं)
 - c) Not sure (निश्चित नहीं)
28. **Do you get any incentives (like offer/ discounts) from UPI App. Service Providers for receiving payment by customers through UPI?** (क्या आपको यूपीआई के माध्यम से ग्राहकों से भुगतान प्राप्त करने के लिए यूपीआई ऐप सेवा प्रदाताओं से कोई प्रोत्साहन (जैसे ऑफर/छूट) मिलता है ?)
- a) Yes(हाँ)
 - b) No (नहीं)
29. **Have you noticed an increase in the number of customers since you started accepting UPI payments?** (क्या आपने यूपीआई भुगतान स्वीकार करने के बाद से ग्राहकों की संख्या में वृद्धि देखी है?)
- a) Yes (हाँ)
 - b) No (नहीं)
 - c) No change (कोई बदलाव नहीं)
30. **Do you feel UPI payments have made it easier for customers to buy from you?** (क्या आपको लगता है कि यूपीआई भुगतान से ग्राहकों के लिए आपसे खरीदारी करना आसान हो गया है?)
- a) Yes (हाँ)
 - b) No (नहीं)
 - c) Sometimes (कभी-कभी)

V. Financial Impact (वित्तीय प्रभाव)

- 31. Do you have your Bank Account? (क्या आपके पास अपना बैंक खाता है?)**
- a) Yes (हाँ)
b) No (नहीं)
- 32. Do you receive UPI Payment in your own Bank Account? (क्या आपको अपने बैंक खाते में UPI भुगतान प्राप्त होता है?)**
- a) Yes (हाँ)
b) No (नहीं)
- 33. If No, in whose Bank account you receive UPI payment from customers? (यदि नहीं, तो आप किसके बैंक खाते में ग्राहकों से UPI भुगतान प्राप्त करते हैं?)**
-
- 34. Has using UPI affected your business income?(क्या UPI के उपयोग से आपकी व्यावसायिक आय प्रभावित हुई है?)**
- a) Business has increased (व्यापार बढ़ गया है)
b) Business has decreased (व्यापार कम हो गया है)
c) No, it has remained the same (नहीं, यह वैसा ही बना हुआ है)
- 35. Do you receive UPI Payment in Bank Account instantly? (क्या आपको बैंक खाते में तुरंत यूपीआई भुगतान प्राप्त होता है?)**
- a) Yes (हाँ)
b) No (नहीं)
- 36. If No, how much time does it take for the UPI payment to be credited to your bank account? (यदि नहीं, तो UPI भुगतान को आपके बैंक खाते में जमा होने में कितना समय लगता है?)**
-

37. **Do you believe that UPI payments help reduce the risk of theft or loss of cash?** (क्या आप मानते हैं कि यूपीआई भुगतान नकदी की चोरी या हानि के जोखिम को कम करने में मदद करता है?)
- a) Yes (हाँ)
 b) No (नहीं)
 c) Not sure (निश्चित नहीं)
38. **How do you do transaction in business to business / Merchant to Merchant payment?**(आप व्यवसाय से व्यवसाय/व्यापारी से व्यापारी भुगतान में लेनदेन कैसे करते हैं?)
- a) UPI (यूपीआई)
 b) Cash (नकद)
 c) Debit card
 d) Credit card
 e) Internet banking
 f) Cheque
39. **If only cash is transacted then how do you manage it?** (यदि केवल नकदी का लेन-देन होता है तो आप इसे कैसे प्रबंधित करते हैं?)

.....

VI. Challenges and Barriers (चुनौतियाँ और बाधाएँ)

40. **What challenges have you faced while using UPI?** (यूपीआई का उपयोग करते समय आपको किन चुनौतियों का सामना करना पड़ा?)
- a) Network issues (नेटवर्क समस्याएँ)
 b) Lack of understanding of the app (ऐप की समझ का अभाव)
 c) Technical difficulties (तकनीकी कठिनाइयाँ)
 d) Fraud or security concerns (धोखाधड़ी या सुरक्षा संबंधी चिंताएँ)
 e) None (कोई नहीं)
 f) Other (please specify)/ अन्य (कृपया निर्दिष्ट करें).....

41. **Have you ever encountered a customer who was not able to make a payment through UPI?** (क्या आपका सामना कभी ऐसे ग्राहक से हुआ है जो UPI के माध्यम से भुगतान करने में सक्षम नहीं था?)
- a) Yes (हाँ)
b) No (नहीं)
42. **Do UPI App service providers take any charge from you for receiving UPI Payment from customers?** (क्या यूपीआई ऐप सेवा प्रदाता ग्राहकों से यूपीआई भुगतान प्राप्त करने के लिए आपसे कोई शुल्क लेते हैं?)
- a) Yes (हाँ)
b) No (नहीं)
43. **If Yes, how much charge is taken by UPI App service providers?**(यदि हाँ, तो UPI ऐप सेवा प्रदाता कितना शुल्क लेते हैं?)
-
44. **What would make UPI payments easier for you?** (आपके लिए यूपीआई भुगतान क्या आसान बना देगा?)
- a) Better internet connectivity (बेहतर इंटरनेट कनेक्टिविटी)
b) More awareness and training (अधिक जागरूकता और प्रशिक्षण)
c) Improved security features (बेहतर सुरक्षा सुविधाएँ)
d) No changes needed (किसी परिवर्तन की आवश्यकता नहीं)
e) Other (Please specify)/ अन्य (कृपया निर्दिष्ट करें).....
45. **Would you recommend UPI to other street vendors?**(क्या आप अन्य स्ट्रीट वेंडरों को यूपीआई की अनुशंसा करेंगे?)
- a) Yes (हाँ)
b) No (नहीं)
c) Not sure (निश्चित नहीं)

46. Do you feel the government or any other organization should provide more support for street vendors in using UPI? (क्या आपको लगता है कि सरकार या किसी अन्य संगठन को यूपीआई का उपयोग करने में स्ट्रीट वेंडरों को अधिक सहायता प्रदान करनी चाहिए?)

- a) Yes (हाँ)
- b) No (नहीं)
- c) Maybe (शायद)

APPENDIX – B

Research Study on “Impact of Unified Payment Interface (UPI) in financial inclusion on Street Vendors of Delhi”

(Questionnaire focused on understanding why some street vendors in Delhi are not using Unified Payment Interface (UPI) digital payments)

(प्रश्नावली यह समझने पर केंद्रित है कि दिल्ली में कुछ स्ट्रीट वेंडर यूनिफाइड पेमेंट इंटरफेस (यूपीआई) डिजिटल भुगतान का उपयोग क्यों नहीं कर रहे हैं)

This survey is part of an Academic research aimed at understanding the impact of UPI (Unified Payments Interface) on financial inclusion for street vendors in Delhi. Your participation is invaluable, and your responses will help us gain deeper insights into the adoption and challenges faced by street vendors in using digital payment methods.

यह सर्वेक्षण एक अकादमिक शोध का हिस्सा है जिसका उद्देश्य दिल्ली में स्ट्रीट वेंडरों के वित्तीय समावेशन पर यूपीआई (यूनिफाइड पेमेंट इंटरफेस) के प्रभाव को समझना है। आपकी भागीदारी अमूल्य है, और आपकी प्रतिक्रियाएँ हमें डिजिटल भुगतान विधियों को अपनाने और सड़क विक्रेताओं द्वारा सामना की जाने वाली चुनौतियों के बारे में गहरी जानकारी प्राप्त करने में मदद करेंगी।

I. Demographic Information (जनसांख्यिकीय जानकारी)

1. **Name of the Respondent** (प्रतिवादी का नाम)
2. **Address/Place of Survey** (सर्वेक्षण का पता/स्थान).....
.....
3. **Age (आयु):**
4. **Gender (लिंग)**
5. **Educational Qualification** (शैक्षणिक योग्यता)
 - a) No formal education(कोई औपचारिक शिक्षा नहीं)
 - b) Primary (प्राथमिक)
 - c) Matriculation(10th) (मैट्रिकुलेशन(10वीं))
 - d) Senior Secondary (12th) (वरिष्ठ माध्यमिक (12वीं))
 - e) Graduation (स्नातक)
 - f) Post-Graduation (स्नातकोत्तर)
6. **How long have you been working as a street vendor in Delhi?**(आप दिल्ली में स्ट्रीट वेंडर के रूप में कितने समय से काम कर रहे हैं?)
 - a) Less than 1 year (1 वर्ष से कम)
 - b) 1-3 years (1-3 वर्ष)
 - c) 4-6 years (4-6 वर्ष)
 - d) More than 6 years (6 वर्ष से अधिक)

7. **What type of products or services do you sell?** (आप किस प्रकार के उत्पाद या सेवाएँ बेचते हैं?)
- a) Food (खाना)
 - b) Vegetables (सब्जियाँ)
 - c) Fruits (फल)
 - d) Clothing (वस्त्र)
 - e) Electronics (इलेक्ट्रॉनिक्स)
 - f) Household items (घरेलू सामान)
 - g) Others (please specify) / अन्य (कृपया निर्दिष्ट करें).....

II. Technology Access (प्रौद्योगिकी पहुंच)

8. **Do you have smartphone?** (क्या आपके पास स्मार्टफोन है?)
- a) Yes (हाँ)
 - b) No (नहीं)
9. **Do you have access to a stable internet connection for digital payments?** (क्या आपके पास डिजिटल भुगतान के लिए स्थिर इंटरनेट कनेक्शन तक पहुंच है?)
- a) Yes (हाँ)
 - b) No (नहीं)

III. Awareness of UPI and Digital Payments (यूपीआई और डिजिटल भुगतान के बारे में जागरूकता)

10. **Are you aware of UPI (Unified Payment Interface) as a payment method?** (क्या आप भुगतान विधि के रूप में UPI (यूनिफाइड पेमेंट इंटरफ़ेस) से अवगत हैं?)
- a) Yes (हाँ)
 - b) No (नहीं)
11. **Have you ever been introduced to UPI or digital payment methods by any government agency, bank, or other organizations?**(क्या आपको कभी किसी सरकारी एजेंसी, बैंक या अन्य संगठनों द्वारा यूपीआई या डिजिटल भुगतान विधियों से परिचित कराया गया है?)

- a) Yes (हाँ)
- b) No (नहीं)

IV. Perceived Barriers to UPI Adoption (UPI अपनाने में कथित बाधाएँ)

12. **Have you ever used UPI payments for any transaction (personal or business)?** (क्या आपने कभी किसी लेनदेन (व्यक्तिगत या व्यावसायिक) के लिए यूपीआई भुगतान का उपयोग किया है?)

- a) Yes (हाँ)
- b) No (नहीं)

13. **What are the main reasons you do not use UPI for your business transactions?** (Select all that apply) आपके व्यावसायिक लेनदेन के लिए UPI का उपयोग न करने के मुख्य कारण क्या हैं? (जो लागू हो उसे चुनें)

- a) Lack of knowledge on how to use UPI (यूपीआई का उपयोग कैसे करें इस पर ज्ञान का अभाव)
- b) Technical difficulties (connectivity issues) (तकनीकी कठिनाइयाँ (कनेक्टिविटी समस्याएँ))
- c) Security concerns (fraud, data theft) सुरक्षा संबंधी चिंताएँ (धोखाधड़ी, डेटा चोरी)
- d) I don't trust digital payments (मुझे डिजिटल भुगतान पर भरोसा नहीं है)
- e) High transaction fees (उच्च लेनदेन शुल्क)
- f) Cash transactions are easier (नकद लेनदेन आसान है)
- g) I do not have the time to learn about UPI (मेरे पास यूपीआई के बारे में जानने का समय नहीं है)
- h) I prefer handling cash to keep my business simple (मैं अपने व्यवसाय को सरल बनाए रखने के लिए नकदी संभालना पसंद करता हूँ)
- i) Others (please specify)/अन्य (कृपया निर्दिष्ट करें).....

V. Knowledge and Training (ज्ञान और प्रशिक्षण)

14. Do you think that government or private organizations should offer more support (e.g., training, financial incentives) to encourage you to use UPI? (क्या आपको लगता है कि सरकारी या निजी संगठनों को आपको यूपीआई का उपयोग करने के लिए प्रोत्साहित करने के लिए अधिक सहायता (जैसे, प्रशिक्षण, वित्तीय प्रोत्साहन) की पेशकश करनी चाहिए?)
- a) Yes (हाँ)
 - b) No (नहीं)

VI. Customer Preferences and Usage (ग्राहक प्राथमिकताएँ और उपयोग)

15. Do you believe that most of your customers are willing to pay using UPI? (क्या आप मानते हैं कि आपके अधिकांश ग्राहक यूपीआई का उपयोग करके भुगतान करने को इच्छुक हैं?)
- a) Yes (हाँ)
 - b) No (नहीं)
 - c) I'm not sure (मुझे यकीन नहीं है)
16. Would offering UPI payments attract more customers to your business? (क्या यूपीआई भुगतान की पेशकश आपके व्यवसाय की ओर अधिक ग्राहकों को आकर्षित करेगी?)
- a) Yes (हाँ)
 - b) No (नहीं)
 - c) Not sure (निश्चित नहीं)
17. What would encourage you to adopt UPI for your business? (Select all that apply) आपको अपने व्यवसाय के लिए यूपीआई अपनाने के लिए क्या प्रोत्साहित करेगा? (जो लागू हो उसे चुनें)
- a) Training and assistance in setting up UPI (यूपीआई स्थापित करने में प्रशिक्षण और सहायता)
 - b) Government incentives or subsidies (सरकारी प्रोत्साहन या सब्सिडी)
 - c) Greater customer demand for UPI (यूपीआई के लिए ग्राहकों की अधिक मांग)
 - d) Lower transaction fees for UPI (यूपीआई के लिए कम लेनदेन शुल्क)

- e) Increased awareness about UPI's security and benefits (यूपीआई की सुरक्षा और लाभों के बारे में जागरूकता बढ़ी हुई हो)
- f) Easier access to smartphones and internet connection (स्मार्टफोन और इंटरनेट कनेक्शन तक आसान पहुंच)

APPENDIX – C



Indian Institute of Public Administration

Research Study on “Impact of Unified Payment Interface (UPI) in financial inclusion on Street Vendors of Delhi”

(Interview Questions for Financial Experts: Impact of UPI on Financial Inclusion for Street Vendors in Delhi)

This survey is part of an Academic research aimed at understanding the impact of UPI (Unified Payments Interface) on financial inclusion for street vendors in Delhi. Your participation is invaluable, and your responses will help us gain deeper insights into the adoption and challenges faced by street vendors in using digital payment methods

1. **Name of the Respondent-** Prof. Vikas Singh
2. **Name of the organization where you are working-** Professor IIPA, Fellow MCRHRD
3. **How would you assess the role of UPI in improving financial inclusion for street vendors in Delhi?**
 - (a) Very significant ✓
 - (b) Somewhat significant
 - (c) Not significant
 - (d) Not sure
4. **What are the key factors contributing to the increased financial inclusion of street vendors through UPI?**
 - (a) Access to formal banking services ✓
 - (b) Ease of digital transactions
 - (c) Reduced dependence on cash
 - (d) Increased transparency and record-keeping
 - (e) Other (please specify)
5. **In your opinion, how has UPI impacted the income-generating opportunities of street vendors in Delhi?**
 - (a) Increased income opportunities ✓
 - (b) No change in income opportunities
 - (c) Decreased income opportunities
 - (d) Not sure

- 6. What challenges do you think street vendors face in adopting UPI for financial transactions?**
- (a) Lack of digital literacy
 - (b) Poor internet connectivity
 - (c) Resistance to change from traditional cash payments
 - (d) Lack of access to smartphones or UPI-enabled devices ✓
 - (e) Other (please specify)
- 7. Do you believe UPI has facilitated better access to government schemes and subsidies for street vendors in Delhi?**
- (a) Yes, significantly ✓
 - (b) Yes, to some extent
 - (c) No, it hasn't facilitated much
 - (d) Not sure
- 8. How do you evaluate the security features of UPI in protecting street vendors from potential fraud or financial risks?**
- (a) Very secure ✓
 - (b) Somewhat secure
 - (c) Not secure
 - (d) Not sure
- 9. What role do financial institutions (banks) play in supporting the adoption of UPI by street vendors?**
- (a) Providing training and resources
 - (b) Offering tailored financial products for vendors
 - (c) Enabling easy UPI registration and onboarding ✓
 - (d) Other (please specify).....
- 10. How does the digital payment ecosystem (like UPI) impact the financial behavior of street vendors in terms of savings, loans, and credit access?**
- (a) Encourages savings
 - (b) Facilitates access to loans and credit ✓
 - (c) No significant impact
 - (d) Not sure
- 11. Do you think UPI has contributed to reducing the informal sector's dependency on cash transactions in Delhi?**
- (a) Yes ✓
 - (b) No
 - (c) Not sure
- 12. What kind of challenges do financial experts foresee in the further adoption of UPI among street vendors in Delhi?**
- (a) Limited internet access in certain areas
 - (b) Inadequate financial literacy ✓
 - (c) Resistance to digital payments
 - (d) Lack of suitable devices for vendors

- (e) Other (please specify).....
- 13. How important do you think it is for street vendors to adopt UPI for their financial inclusion and integration into the formal economy?**
- (a) Very important ✓
 - (b) Moderately important
 - (c) Not very important
 - (d) Not sure
- 14. What steps should be taken by financial institutions to make UPI adoption easier for street vendors in Delhi?**
- (a) Providing tailored financial education
 - (b) Offering affordable smartphones or devices
 - (c) Ensuring a user-friendly UPI interface ✓
 - (d) Ensuring better connectivity in underserved areas
 - (e) Other (please specify).....
- 15. How do you evaluate the role of UPI in improving the economic empowerment of street vendors, especially women vendors?**
- (a) Very positive impact ✓
 - (b) Some positive impact
 - (c) No significant impact
 - (d) Not sure
- 16. What policy interventions do you think are necessary to further enhance UPI adoption and financial inclusion among street vendors?**
- (a) Government subsidies for digital payments infrastructure ✓
 - (b) Digital literacy campaigns targeting street vendors ✓
 - (c) Incentives for vendors to use UPI ✓
 - (d) Improved access to mobile data and internet connectivity
 - (e) Other (please specify).....
- 17. Looking ahead, how do you see UPI contributing to the overall financial inclusion of informal sectors, such as street vendors, in the next 5 years?**
- (a) Significant improvement in financial inclusion ✓
 - (b) Moderate improvement in financial inclusion
 - (c) No significant change
 - (d) Not sure
- 18. Any other specific comment on this subject?**
-