

FINAL YEAR PROJECT

BARRIERS TO UNIFIED PAYMENTS INTERFACE WITH SIGNIFICANCE TO ALUVA
MUNICIPALITY

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**BARRIERS TO UNIFIED PAYMENTS INTERFACE WITH SIGNIFICANCE
TO ALUVA MUNICIPALITY**

Dissertation Submitted to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

**In partial fulfillment of the requirement for the award of
DEGREE OF BACHELOR OF COMMERCE**

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BONAFIDE CERTIFICATE

This is to certify that this dissertation entitled “BARRIERS TO UNIFIED PAYMENTS INTERFACE WITH SIGNIFICANCE TO ALUVA MUNICIPALITY” Is a record of original work done by

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in partial fulfillment of the requirement for the Degree of Bachelor of Commerce – Finance and Taxation under the guidance of Asst. Prof. ARUNA DEVI P, Department of Finance and taxation, the work has not been submitted for the award of any other degree or title of recognition earlier.

Asst. Prof. JULIE.P. J
(Head of the Department)

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Place: THRIKKAKARA

External Examiner Date:

DECLARATION

- AKSHAI SHAJI (REG NO 200021076998) SREERAM S KUMAR (REG NO ,We
200021077114) hereby declare that the project report titled “BARRIERS TO UNIFIED
is a ,”PAYMENTS INTERFACE WITH SIGNIFICANCE TO ALUVA MUNICIPALITY
ARUNA .Prof .Bonafide Record of work done by us under the guidance and supervision of Asst
.THRIKKAKARA ,BHARATA MATA COLLEGE ,Department of Finance and Taxation ,DEVI P
We also declare that this report embodies the findings based on our study and observation and has
not been submitted earlier for the award of any Degree or Diploma to any institute or university.

Place: THRIKKAKARA

Date:

AKSHAI SHAJI

SREERAM S KUMAR

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CHAPTER-1

INTRODUCTION

INTRODUCTION

The Government of India has initiated the "Digital India" campaign to ensure that its services are made electronically accessible to its population through improved online infrastructure, increased Internet connectivity, or the empowerment of the nation in the digital sphere. Plans for connecting rural areas to high-speed internet networks are part of the effort. The creation of a secure and reliable digital infrastructure, the provision of public services online, and widespread digital literacy make up its three main parts. networks. The creation of a secure and reliable digital infrastructure, the provision of public services online, and widespread digital literacy make up its three main parts. Prime Minister of India Shri. Narendra Modi launched the digital campaign on July 1, 2015, and it is both a beneficiary and an enabler of several significant Government of India programmes, including BharatNet, Made in India, Startup India, Standup India, industrial corridors, and Bharatmala and Sagarmala. People worldwide are adapting to digital forms of payment. However, digital payment has still not reached its potential due to various hindrances such as fear of scams, lack of technical awareness, infrastructure, and the high entrance costs.

Demonetization in 2016 acted as a spark leading many people to move from cash transactions to more digital forms of payment. This spark turned into a giant flame due to its convenience, ease of use and the inability of storekeepers to keep the proper change. The pandemic further fueled the fire, during the crisis people avoided all physical contact and preferred payment through distant means causing a considerable surge in digital payment. Service providers like Amazon (Amazon pay), Paytm, and others offer various discounts giving people proper incentive to switch.

UPI has been the sought-after method in recent years, almost quadrupling the number of banks since 2016 and showing a rapid growth in value and volume of transactions. UPI has enabled digital payments to be straightforward and made it simple for ordinary citizens to participate. It records every transaction instantly for more transparent banking, not allowing any room for complication.

Apart from the consumers, online and mobile banking services are the preferred choice of banks that lend out money as it reduces the cost, is easier to process, and avoid using paper cheques, memos, and extra. These merits were given another boost after the introduction of UPI by the

National Payment Corporation which integrated and unified all digital payments in the country. Since the maximum transaction limit of UPI is Rs 5,00,000 it also becomes favorable to retailers and small investors in stock markets.

STATEMENT OF THE PROBLEM

UPI (Unified Payments Interface) has revolutionized the way people in India make transactions by providing a simple, secure and instant payment system. It has made digital transactions easier, faster and cheaper, reducing the need for cash transactions and changing the market drastically. but it has not yet realized its full potential. Still, a sizable portion of people remains unable or unwilling to accept the shift. The goal of the study is to comprehend the issues that individuals experience, the reasons behind the failure to adopt new technology, and how we can welcome them to the future of transactions.

NEED AND SIGNIFICANCE

Digital payments and the Unified Payments Interface (UPI) are quickly changing how people in India conduct business. These electronic payment methods are crucial to the growth of trade and the economy in the future. UPI and digital payments are highly efficient, secure and cost-effective. These technologies are reducing the need for cash transactions. They also reduce the risk of fraud, theft and counterfeiting of currency notes. Indian economy is built on the backs of small businesses and UPI and digital payments support their growth by making it easier for them to pay and receive payments and reducing the hassle of bank transactions. And most importantly it also supports the government's goal of a cashless economy, which can reduce corruption and improve tax compliance. Overall, UPI and digital payments have immense potential to drive economic development and improve the quality of life for people in India.

OBJECTIVES

1. To understand the reason for switching to UPI.
2. To identify the section of society not using UPI or Digital means of payment
3. To understand the reasoning behind not using the UPI.

RESEARCH METHODOLOGY

1. Study group - We plan to study a wide variety of people in our daily lives from domestic workers, strangers, small stores, supermarkets and many more
2. Sample design - The method adopted for this study is “random sampling”, as the population of this study is enormous and dispersed. The questionnaire will be prepared using google forms to ask the questions sequentially and systematically. It also includes Yes/No questions, and a scale 5 (highly satisfied, satisfied, moderate, dissatisfied, highly dissatisfied) is used to determine the respondent's liking of that aspect of the subject matter.
3. Analysis Design - The data collected from various respondents is separated and classified into different age groups, types of users and other segments. After that a systematic analysis is made using tables and charts, pie charts, percentage methods and other statistical tools.

LIMITATIONS OF STUDY

1. Lack of population diversity - The data we were able to collect is dominated by a specific age group and employment status due to the population available.
2. Population size - The number of participants was not enough to understand the habits of the entire city.
3. Time allowed for the study is less

SCHEME OF REPORT

1. Chapter 1 includes the introduction, statement of the problem, need and significance, objectives and methodology of study
2. Chapter 2 contains 18 literature reviews based on UPI and digital payments conducted by various authors published in different journals with their inferences.
3. Chapter 3 includes the industrial study of UPI which depicts the market of UPI in India and its various banking partners who are associated with it.
4. Chapter 4 includes the analysis of the data collected through tables, pie charts, and other thematic graphs.
5. Chapter 5 includes the findings, recommendations, conclusion of the data collected and the bibliography of the project.

CHAPTER-2
REVIEW OF LITERATURE

REVIEW OF LITERATURE

Literature review as per the name shows it is process of reviewing of research literature which is done by any researchers in past. A literature review is an exploration to identify the related research to make or set relation with current research project with a conceptual and theoretical context:

Dave Chaffy (2002): The author Dave Chaffy describes E-commerce in his book “E-Business and E-Commerce Management’. Mr. Dave makes the strategy, implementation, and practices of e-commerce plans in his book. E-commerce is a type of business that uses the internet to influence customers. The main management decisions that organizations going to e-business must make are identified in this book, along with the steps that these decisions must take to be implemented. E-commerce aids in the model analysis of how supply chain operations might enhance the value of goods and services provided to customers. A concise list of the issues relating to the effects of the new trend of e-Commerce on traditional business is provided for each section of the book. The choice of mobile services that take advantage of how mobile phones and other portable wireless devices, including laptops, are used globally to show how various markets view internet marketing.

Abrazhevich and Dennis (2004): They describe in his thesis ‘Electronic Payment System: A User- Centered Perspective and Interaction Design’ advantages and limitations of electronic commerce. Basic division of payment systems. A clear picture of how quickly e-commerce is developing is emerging. He studies the use of e-commerce. Every aspect of the electronic payment system’s usability and online payment security. Over time, the real-world E-Commerce environment has enabled all internet users to do transactions online, giving them the ability to manage any emergency circumstance. E-commerce, or electronic commerce, was first introduced to the world in the 1990s, and over time it gained popularity. From a consumer and corporate standpoint, it is beneficial.

Lei-da Chen and Ravi Nath (2008): The objective was to identify factors that influence consumer E-Payment adoption in the United States. In research methodology data was collected from 299 respondents and analysis using confirmatory factor analysis and ANOVA. Findings indicated that greater perceptions of compatibility, transaction convenience, and speed would lead to a high inclination to embrace M-Payment, whereas greater security and privacy concerns would result in a lower propensity to adopt M-Payment. Compatibility has the strongest link with the intention to adopt out of all the constructs.

Sevgi Ozkan, Gayani Bindusara and Ray Hackney (2010): The study's goal was to examine the different important aspects that may ensure consumer adoption of e-payments through theoretical constructs and an empirical investigation. The idea of reasoned action and the technological acceptance model were used in the research technique. A survey was conducted and distributed to 200 people, and 155 of them responded. With the use of SPSS software, multiple regression analysis and person's correlation analysis were used to evaluate the data. In its findings the study revealed that three of the critical factors were necessary and three were relatively sufficient through customer intentions to adopt an e-payment system.

Pardhasaradhi Madasu (2015): The objective was to assess and report the progress made by the RBI in moving towards the cashless economy. In research methodology the data collected from RBI database related to cashless transaction from the year 2004-05 to 2014-15. According to the research, China held a spot in the top 16 non-cash markets of the globe but not India. The use of debit cards at ATMs has increased when compared to the use of credit cards. Services other than cash, including M-wallet or the instant Payment service, have not had a big influence.

Mr. P. Phani Bhaskar and Dr. D. Prasanna Kumar (2015): After the advent of e-commerce and online consumer shopping patterns, it has become crucial to develop and retain e-loyalty in the digital market. The relevance of client loyalty and satisfaction with online marketing and e-commerce is discussed by the author in his article, "E-Loyalty and E-Satisfaction of E-Commerce." After the adoption of internet habits, the competitiveness in today's world of e-commerce has increased. Because brand loyalty will rise when brand awareness is high, e-retailers and e-sellers should create a brand and market it through sales promotions. Consumer pleasure in online buying has a passive but considerable impact on cyber customers' e-loyalty.

Mohammad Auwal Kabir and Aidi Ahmi (2015): The authors of the study “Adoption of E-Payment System: A Review of Literature” explain how the development of information and communication altered how Indian individuals made payments. Digital technologies have undergone significant evolutionary changes, and as a result, there is a steady transition from cash-based to electronic-based transactions. This study provided a comprehensive and in-depth look at various peoples’ perspectives on the E-Payments system. Defining other factors, they were examined for the purpose of an empirical study that looked at the acceptance of e-payments in various regions of the world.

Abdul Gaffar Khan (2016): Electronic commerce: A Study on Benefits and Challenges in an Emerging Economy is the title of the researcher’s study paper. E-commerce first appeared in 1995, and today, thanks to the spread of ICT throughout the world of business, it is becoming more and more widespread. It is expanding quickly toward B2B e-commerce. Ecommerce offers a lot, but for a few economic, structural, and legal reasons. It was not previously widely dispersed. E-commerce advantages include lower transaction costs for business participation transactions. From the seller’s perspective, the main benefit of e-commerce is that the transaction procedure is rapid and saves them time while increasing their revenue. The three biggest problems are a lack of knowledge, a poor understanding of web marketing, and a lack of reliable businesses and organizations.

Zlatko.Bezhoveski (2016): In his research ‘The Future of the Mobile Payments as Electronic Payment System’ he explains the need of M-Commerce after the development of E-Commerce and future of adopting mobile device as payment mode. With the use of various electronic payment solutions, e-commerce promoted digitalization in the payment operations. Following the development of mobile commerce, we have become acquainted with mobile wallets and their use in financial transactions. This research also looks at the factors that influence customers’ adoption of mobile payment methods and their expectations for future M-Commerce advances. However, despite being a frequently used payment method worldwide, there are a few obstacles to the adoption of mobile payment methods.

Preeti Garg and Manvi Panchal (2016): Researchers describe the advantages and difficulties of

adopting the digital economy in India in their report, “Introduction of Digital Economy in India 2016”. The Indian government has made significant adjustments to the country’s business environment since demonetization. The government is working on several regulations to reduce the use of cash and has launched numerous initiatives at all levels to encourage people to conduct transactions online and bolster the digital economy in everyone’s best interests. After all of this, a sizable portion of the Indian populace remains unaffected by online transactions.

Reserve Bank of India (2017): The Reserve Bank of India provided a preliminary analysis on the “Macroeconomic Impact of Demonetization.” A substantial expansion in the consolidated balance sheet of the scheduled commercial banks caused by an increase in deposits resulted in extreme liquidity problems. The sharp rise in the use of digital transactions has had a significant effect on demonetization. The decision was made to take advantage of the significant potential long-term benefits, such as decreased corruption, increased economic formalization, and increased financial saving. These would result in better GDP growth and tax revenues, which the government could employ for inclusive and stronger economic growth within the parameters of fiscal discipline in addition to advancing the economy.

Mrs. Pranjali and Etal (2017): In his essay, “Impact and Importance of Digital Transactions in India,” the author discusses the significance of the digital economy. The Indian government predicted that the country’s digital policy will boost employment, lessen cash-related crime and corruption, and bring in more international investors. It is anticipated that the cost of banking services will decrease when payment methods are modernized. Considering this, a cash economy refers to a situation in which products and services are purchased and paid for through electronic means rather than the total absence of currency. The value of digital transactions is that they cut down on red tape, bureaucracy, and corruption while also reducing the flow of illicit funds and money laundering. Stop the unlawful activities using cash and make transactions simpler.

Piyush Kumar and Dr. Dhani Shanker Chaubay (2017): Researchers highlight the opportunities, concerns, and challenges in adopting digital payments in their research paper, “Demonetization and Its Impact ON Adoption of Digital Payment.” After demonetization, these digital payments changed the economic situation of the Indian government. After demonetization, electronic payments have become a regular part of life for Indians. These problems offer a study agenda to motivate the researcher to investigate novel areas of knowledge. After demonetization, Indians started using mobile payments as well. Additionally, banks have introduced mobile banking, which enables clients to do transactions using their mobile device.

P. Pani Bhaskar and D. Prasanna Kumar (2017): ‘Effect of Demonetization on Ecommerce’ in his paper. Regarding the E-Commerce ecosystem, the writers are unambiguous. E-Commerce was in a position to develop accurately prior to India’s demonetization of its currency, but the demonetization issue has forced individuals to use online transactions or net banking in their day-to-day lives. Although E-Commerce is not a new technology for metropolitan regions, there must be a commitment to internet business there. The authors claim that the demonetization of currency in India has encouraged and compelled Indians to engage in more online transactions as opposed to the country’s more traditional cash-based payment methods. E-commerce businesses had a large payment on cash on delivery before to demonetization, which prior to the demonetization will bring about a beneficial change in e-commerce since it will reduce the amount of money that is paid in cash on delivery by large E-Commerce enterprises.

Naincy Prajapati and Sanjeev Kumar Singh (2017): In their study titled “Impact of Demonetization on Online Transactions,” the research experts provide descriptions. The decision to demonetize gave the Indian economy a new direction as it moved toward the digital economy. After demonetization, India gains potential as a growing country for businesses engaged in e-commerce. The country’s cash on delivery orders decreased because of the economic cash shortage, but internet payments increased. Despite all these positive outcomes, individuals are

nevertheless having a lot of troubles because of the financial crisis. This study investigates the consequences of internet transactions during the demonetization period. Demonetization is a major factor in India's troubles since it abruptly caused a significant shift from cash to non-cash. India is a cash-dominant nation.

Dr. S Manikandan and J Mary Jayakodi (2017): According to their study, "An Empirical Study on Consumer Adoption of Mobile Wallet with Special Reference to Chennai City," smart phones are now an integral part of peoples' daily lives. He discovered that smart phones are made as technologically advanced gadgets that are utilized for financial transactions or payments through the usage of applications that users of mobile phones have loaded on their phones. To determine the elements influencing the customer for the acceptance and usage of mobile wallets, they designed a structural questionnaire and collected data from 150 respondents. They then analyzed the data to obtain the results for their research. Following the findings, it was made evident that mobile wallets have changed online payments.

Raghvendra Nayak (2018): It was a conceptual study on "Digitalization of Banking-Issues and Challenges in Rural India". He observed that the Indian banking industry was significantly impacted by the "Digital India" push. Even with the advancement of digitization, India is still lagging in the banking sector's adoption of digitalization. It is true that the digitalization of banking would revolutionize the Indian economy, but it is still necessary to introduce digital services in rural regions as well. It has a lot of conceptual problems and difficulties with the implementation of digitization in rural banking locations. It conducted research on banking efficiency and made transactions easier. It is helpful to identify the driving forces behind the brisk adoption of digitalization in the banking sector.

K. Suma Velly and K. Hema Divya - (2018): According to their report, "Digital Payment in India with Perspective of Consumer Adoption," demonetization has led to a huge increase in digital payments. These changes bring about a significant shift toward digital payments and increase transaction transparency, which strengthens the nation's economy. The goal of this study is to determine the effects of demonetization on consumer adoption of online payments and

payment system digitization to determine the extent of consumer use of digital payment systems. E-payment systems are crucial tools that are utilized by both individuals and businesses as a practical method of sending money online while also serving as a portal for technological growth.

Dr. Shilpa Bhimrao Gaonkar (2018): The objective was to explore various payment instruments available to the people and their benefits. In research methodology the conceptual study was done. Data from reports by the RBI, GOI, NPCI, MEDIANAMA, etc. were used. The study's conclusions showed that several new instruments are becoming available. Going cashless has advantages such as improved tracking, efficiency, and convenience.

Dinesh T. M, Kiran Kumar Reddy and Suhasini K (2018): The goal was to evaluate the impact of the demonstration on digital payments in India. As part of the research approach, exploratory data analysis was done on the data that was obtained for the study from the NPCI website between May 2016 and October 2017. The study's conclusions showed that there was a significant impact of demonstration on digital payments, which are particularly obvious in RTGS and mobile transactions.

CHAPTER 3
THEORETICAL FRAMEWORK

UNIFIED PAYMENT INTERFACE-UPI

A smartphone software called a Unified Payment Interface (UPI) enables users to transfer money between bank accounts. The National Payments Corporation of India developed the single-window mobile payment system (NPCI). Every time a customer starts a transaction, there is no longer a need to enter sensitive information like bank account numbers.

A real-time payment system is the Universal Payment Interface. Peer-to-peer interbank transactions can be made possible with a single two-click factor authentication process. The Reserve Bank of India (RBI), India's central bank, oversees the interface. It functions by the transfer of funds between two bank accounts and a mobile platform.

The system reportedly eliminates the need to conduct business with actual currency or through a bank and provides a safe and secure way for two parties to transfer money. India's pilot programme began on April 11, 2016. In August 2016, banks all throughout the nation began to upload their interface.

To facilitate seamless settlement across accounts, UPI makes use of already-existing systems like Immediate Payment Service (IMPS) and Aadhaar Enabled Payment System (AEPS). It makes push (pay) and pull (receive) transactions easier, and it also supports over the counter or bar code payments as well as several recurring payments like utility bills, tuition, and other subscriptions.

As of February 2019, 134 banks were utilizing the interface, according to NPCI. In that same month, transactions using the UPI totaled more than Rs. 270 billion.

The technology enables mobile payments to be delivered without the use of credit or debit cards, net banking, or the requirement to enter account details once a single identification is established. By connecting people who have bank accounts via cellphones, this would not only increase the security of critical information but also enable frictionless transactions.

In the UPI, sending money is referred to as "push." The user logs into the interface and chooses the Send Money/Payment option to send money. He selects the account from which the funds

will be debited after entering the desired amount and the recipient's virtual ID. After entering a unique personal identification number (PIN), the user is given confirmation.

A "pull" is when money comes through the system. The user chooses the option to collect money after logging into the system. The amount to be collected, the virtual ID for the remitter, and the account where she will deposit the monies must all be entered at this point. The payer is then sent a message asking for payment. If he chooses to proceed with the payment, he enters his UPI PIN to approve the deal. Both the sender and the recipient receive a text message confirmation to their smartphones after the transfer has been successfully completed.

UPI provides several essential functions. Users get access to their balances, transaction history, and the ability to send and receive money. Users require an account number, the Indian Financial System Code (or IFSC, an alphanumeric code that enables electronic transfers), the recipient's mobile number, and a virtual ID or Aadhaar number to send money (which is like a Social Security number).

1. Instantaneous money transfers on mobile devices every day of the year, 24/7.
2. Several bank accounts can be accessed using a single mobile application.
3. Single Click 2 Factor Authentication - Compliant with regulatory requirements while offering a very potent single click payment functionality.
4. With no need for the consumer to submit information like their card number, account number, IFSC, etc., the virtual address of the customer for Pull & Push offers incremental protection.
5. QR code
6. The easiest solution to the inconvenience of Cash on Delivery is to hurry to an ATM or provide the precise amount.
7. Payment by a merchant through an individual application or an app.
8. Utility bill payments, cash payments made in person, and payments made using QR codes (scan and pay).
9. Scalable donations, collections, and disbursements.
10. Directly filing a complaint with a mobile app.

Participants in UPI

- Payer - PSP
- Payee - PSP
- Beneficiary bank
- Remitter bank
- NPCI
- Account holders
- Merchants

MILESTIONES OF UPI

The National Payment Corporation of India (NPCI) was established in April 2009 with the goal of integrating all Indian payment systems and standardizing them for all retail transactions. By March 2011, RBI had discovered that despite 10 million merchants accepted card-based payments, the average Indian person only engaged in six non-cash transactions annually. There are 145 million families without any access to banking services. Also, there is the issue of dealing with corruption that primarily occurs with cash and black money.

In 2012, the RBI published a four-year vision statement outlining its commitment to creating a secure, effective, open, inclusive, interoperable, and regulated payment and settlement system in India. The Green Initiative includes reducing paper use in domestic payment markets. UPI was formally introduced to the public in 2016.

The main organization tasked with creating a brand-new payment system that is easy to use, safe, and interoperable is now the NPCI, thanks to RBI instruction. There will be a remitter/beneficiary front end PSP (payment service provider) and a remitter/beneficiary back-end bank that settles the financial transaction for the users under UPI's four pillar push-pull interoperable paradigm. UPI became one of the most successful deep-tech innovations to come out of India, according to the CEO of NetMagic Solutions.

In December 2019, Google urged that the Federal Reserve Board use UPI as an example while creating Fed Now, a real-time payment system for the United States, highlighting the success of UPI.

India surpassed China and the United States to become the largest real-time payment market in the world in 2020 with 25,50 billion yearly transactions, according to data from ACI Worldwide and Global Data.

According to the Economist Intelligence Unit Report 2021, UPI has elevated India to the top spot in the world market for real-time payments, ahead of China and South Korea.

With the Ministry of Finance's decision to remove the merchant discount rate (MDR) from UPI in 2019, the volume of low value transactions exploded, producing enormous benefits in real-time transaction volume statistics.

Currently, countries including Brazil, Bahrain, Saudi Arabia, Singapore, the United States, and the European Union are attempting to imitate UPI's success in their own markets.

UPI gained popularity as a payment method for initial public offerings starting on January 1, 2019. (IPOs). In March 2020, the transaction cap increased from 100,000 to 200,000. RBI once more raised the threshold for Retail Direct Scheme and IPO applications to 500,000 from December 2021. RBI is taking merchant discount rate (MDR) on upcoming UPI transactions into consideration to make UPI commercially viable for payment companies. In its inaugural monetary policy for the fiscal year 2022–2023, the RBI recommended a cardless ATM cash withdrawal option based on a QR code. Tone Tag introduced Voice SE in collaboration with NSDL Payments Bank and NPCI, allowing 400 million feature phone users to make UPI payments via speech in Hindi, Tamil, Telugu, Malayalam, Kannada, and Bengali.

The advent of UPI 2.0 on August 16th gave users the ability to connect their overdraft accounts to a UPI handle. Moreover, users have the option of per-authorizing transactions by sending a mandate to a particular merchant. The ability to view and save the transactional invoice was also provided in this version. Moreover, a recurring payment option called Autopay was implemented. State Bank of India, Bank of Baroda, and Paytm Payment Bank are all active UPI Auto-pay providers as of August 2021, with each bank recording 660,000, 204,000, and 186,000 mandates, respectively. The government will no longer require a debit card for UPI registration as of March 15, 2022.] By September 2022, NPCI hopes to simplify the real-time payment dispute resolution system to handle 90% of the complaints and expand Auto Pay to overseas markets.

RBI has made it possible to integrate Ru Pay with credit cards with UPI as of 8 June 2022. Without a real car, customers may now use UPI to make credit card payments. A real-time

feature being developed by NPCI will shorten the current 24-hour waiting period for banks to release funds blocked due to time-outs or transaction declines to just 30 seconds. The service debuted formally on September 20, 2022. The RBI declared on December 7, 2022, that UPI will transition from single-block-single to single-block-multiple debit for recurring transactions and securities investments. The function will enable the user to set aside money for a certain use and release it when needed.

ADVANTAGES OF UPI

1. The most secure payment can be made by using the UPI pin. This is an extremely secure method of sending money because it only provides you with one PI.
2. You won't incur any fees if you use UPI to make a payment because the Indian government provides it for free.
3. UPI allows you to request or send any type of payment all at once. In a couple of seconds, it either deposits money into your account or transfers money to another account.
4. With UPI, all of your bank accounts are accessible through a single mobile application.
5. You can quickly and without any fees send money to any bank that supports the unified payments interface, including the State Bank of Punjab National Bank and all other banks.
6. UPI is simple to use; you may access it whenever you want, day or night, at any location, and even on holidays.
7. With UPI, there is no need to provide information such as an account number, IFSC code, or ATM card number.

8. You may send money to another account fast and easily with the help of the UPI payment because it is so straightforward.
9. If you send money to another account holder, they receive cashback if you submit the identical amount over the UPI. There are several advantages to it.

DISADVANTAGES OF UPI

1. UPI is great for sending modest amounts of money, however alternative internet transfer methods are preferable when sending large sums.
2. Customers finding it difficult to download the bank application to their smartphones for a single payment interface is another problem with UPI. This is because they are worried about online fraud.
3. To keep your account secure, don't divulge any of your personal information, including your date of birth, UPI pin, and other details.
4. You can send as much money as Rs 10,000 through UPI if you want to send a payment. If you need to transmit it more than once, do one at a time.
5. You must be aware that to transfer money, you must use the unified payment interface pin (also known as the UPI pin), which has just four to six digits. Because the UPI pin has such a tiny number of digits, it is not secure.

6. The slow internet does not support it.
7. Although UPI is a very quick and secure method, there are occasions when the bank's system goes down and it takes a long time to send the payment.
8. If you want to pay using the UPI you need the UPI support app, which you'll need to install on your smartphone and use regularly take your mobile RAM too much. So that your mobile hangs or uses too much internet

FUNCTIONS OF UPI

Users of UPI could instantly transfer money between bank accounts linked to their UPI IDs. Now, users can send and receive money using their mobile devices without using cash or disclosing the details of their bank accounts.

Linking Several Bank Accounts: UPI users have the option to link several different bank accounts to their UPI ID. Consumers have the option of switching between their bank accounts to conduct transactions and receive payments.

Payments made with QR Codes: UPI enables consumers to make payments by using their smart devices to scan QR codes. Users can now buy goods and services at establishments that accept UPI payments by just scanning a QR code.

Paying Bills: UPI enables consumers to utilize their mobile devices to pay their phone, utility, and other bills.

dividing the cost of a purchase and asking others for cash.

BUSINESS USES OF UPI

With the help of Application Programming Interfaces (APIs), UPI can perform the following activities:

1. With the help of UPI, we could make payments with an address rather than sharing important credentials like Card number or account number to third party software or websites.
2. It helps to pre-authorize multiple recurring payments like college fees, electricity bills, newspaper bills, and other subscriptions etc.
3. Creating an interoperable system where there is transparency and easiness in every transaction.
4. Helps to make all primary transactions via a person's phone i.e., making both person-to-person and person-to-business transactions using one's phone.

DIGITAL PAYMENTS BEFORE UPI

The following was the situation of digital payment before UPI;

Credit and debit cards were first made available in India in the early 1990s. Because there were few ATMs and merchant terminals available at first, adoption rates were low. But, as the Indian economy grew and financial services were expanded, debit and credit cards started to be used more often.

Mobile wallets: Launched in India in the early 2010s, mobile wallets give customers a simple way to send money online using their smartphones. With the ability to add money to their mobile wallet accounts and pay for goods and services at businesses that accepted mobile wallet payments, businesses like Paytm, Mobi Kwik, and Free charge became well-known

Instant Payment Service is referred to as IMPS. It is a digital payment system that enables 24/7,

including weekends and holidays, fast money transfers between Indian bank accounts. Customers can use their mobile phone, internet banking, ATM, or bank branch to transfer money to any Indian bank account rapidly. The National Financial Switch (NFS) network, which links all participating institutions and permits real-time money transmission, is the foundation for the IMPS service. Customers must link their bank account to their mobile number and register their mobile number with their bank to use IMPS. IMPS had become a well-liked payment mechanism in India because of its accessibility, ease, and quickness. It is frequently used for peer-to-peer payments, online transactions, utility bill payments, and even donations to nonprofits

The Indian government created the Aadhaar Enabled Payment System (AEPS) as a payment method to make it easier for people without access to regular banking services to conduct financial transactions. Customers can conduct digital transactions utilizing both biometric authentication and their Aadhaar number. Via Micro ATMs deployed at specified banking correspondents, AEPS offers a platform for various financial services such as cash withdrawals, balance enquiries, and fund transfers. Because biometric identification is used for authentication instead of PINs or passwords, the system enables quick and safe transactions. By giving a sizable portion of India's rural and poor populations access to banking services, AEPS has considerably boosted financial inclusion. It is a crucial part of the government's effort to move away from cash.

CONDITION OF UPI AFTER ITS INTRODUCTION

1. UPI during Demonetization

The Indian government removed the legal tender status of high-value banknotes during the demonetization era, which started in November 2016, with the goal of reducing black money and fostering a cashless society. A sudden shortage of cash in the country because of the demonetization push gave rise to an increase in digital payments. Just a few months before demonetization, in August 2016, the Unified Payments Interface (UPI) was introduced, and adoption was still in its infancy. Yet as consumers began utilizing UPI more and more for daily transactions, there was a noticeable increase in transactions during the demonetization era. Anyone may easily send money to anyone

using just their mobile number or UPI, making it a convenient and safe payment option.

2. UPI during the COVID pandemic

The COVID-19 pandemic significantly impacted India's adoption of digital payments, and at this time, Unified Payments Interface (UPI) became the favoured option for millions of individuals. Due to the pandemic's widespread lockdown and social isolation policies, there was a significant drop in cash transactions and a rise in demand for digital payments. During this time, UPI, a contactless and practical payment method, saw a huge increase in popularity as individuals tried to avoid touching cash and limit physical contact. Both consumers and businesses liked UPI because of its interoperability and simplicity of use, and various new use cases appeared as a result of the pandemic. For instance, UPI was frequently used to donate to numerous relief efforts and charitable organizations.

UPI APPS

GOOGLE PAY

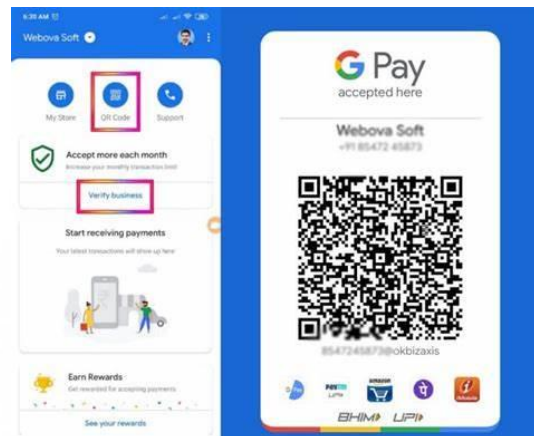
Google Pay is a mobile service that enables users to purchase products and services using a compatible android phone with an NFC chip. Google Pay is also compatible with watches and tablets. Customers in the digital world can easily solve their problems with the help of this online payment system and digital wallet. Also, it's a great method for businesses to give customers extra payment options. Offering extra options like android pay and google wallet payments instantly increases the appeal of your store, as you may already know if you own a

business.

Users can take advantage of contactless payments using Google Pay without using a physical Visa or MasterCard. To use your google account or remember your credit card number, you do not need to carry your purse around with you. You're prepared to go if your device already has a suitable card. All you must do to utilize Google Pay is download the app and sign in with your Google account. On your Android phone, go to the Google Play store to access Google Pay. After logging in, you can choose a preferred payment method, which will be used for all your Google Pay transactions.

Company owners and merchants can easily start collecting digital payments by using the Google Play service with their personal current accounts.

With Google Pay, payments will be made directly to your bank account with no additional fees.



PHONEPE

Phone Pe is an Indian company that specialises in financial technology and digital payments with its headquarters in Bengaluru, Karnataka. In December 2015, Sameer Nigam, Rahul Chari, and Burzin Engineer founded PhonePe. In August 2016, the Unified Payments Interface (UPI)-based PhonePe app went live. Flipkart, a Walmart subsidiary, is the owner of it.

There are 11 Indian languages represented in the PhonePe app. Users of PhonePe can send and receive money, reload data, DTH, mobile, and utility cards, pay for goods and services, buy insurance, mutual funds, gold, and silver, and invest in liquid and tax-saving funds. With its Switch platform, PhonePe also enables customers to reserve their Ola rides, pay for Red bus tickets, and reserve flights and lodging on Goibibo.

More than 2.5 billion offline and online merchant locations in 15,700 towns and villages accept PhonePe as a form of payment. As of June 2018, the app served over 10 crore users, and by December 2019, it had handled 500 crore transactions. With over 15 crore active users each month, it currently has over 35 crore registered users.

The Reserve Bank of India has granted Phone pe license to issue and run a semi-closed prepaid payment system under Authorization Number: 75/2014, dated August 22, 2014.



PAYTM

The Indian digital payments and financial services company Paytm is based in Noida and stands for "pay through mobile." Vijay Shekhar Sharma, working for One97 Communications, founded it in 2010. Consumers can use the company's mobile payment services, and its point of

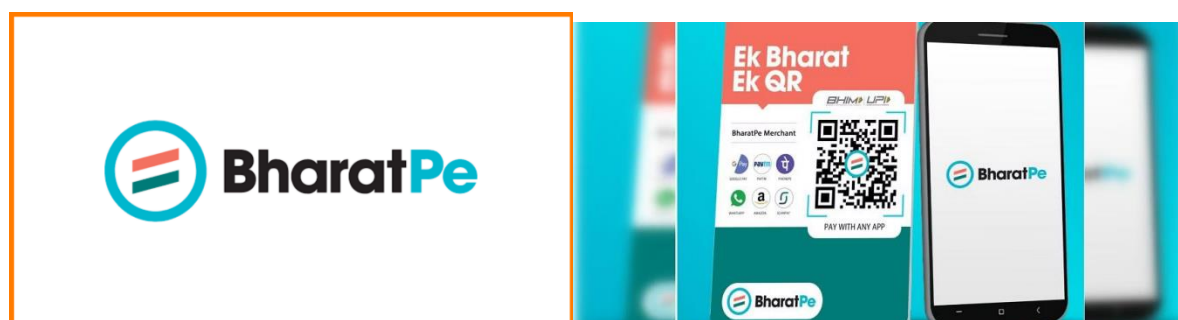
sale, internet payment gateway, and QR code solutions make it possible for businesses to accept payments. Paytm provides its customers and merchants with financial services like microloans and buy now, pay later in collaboration with financial institutions. The business also offers online games, retail brokerage services, and ticketing services in addition to bill payments and money transfers. One97 Communications, the parent company of Paytm, had the largest initial public offering in India at the time when it was listed on the Indian stock exchanges on November 18, 2021



BHARAT PE

An Indian fintech company called BharatPe offers services to small business owners and shop owners in that country. The business provides a variety of fintech products, including small business financing, interoperable QR codes for UPI payments, and Bharat Swipe (POS machines) for card acceptance.

It enables small businesses to take payments for nothing via the Unified Payments Interface (UPI) through BharatPe QR codes. Additionally, it provides merchant loans with terms ranging from 3 to 12 months and up to 7 lakh rupees (\$9,800). 12% Club, a peer-to-peer loan platform, is among the additional offerings. The business introduced Digital Gold in 2020, a new product that enables users to trade for 24-carat gold that is 99.5% pure



CHAPTER - 4
DATA ANALYSIS AND
INTERPRETATION

QUESTIONNAIRE

1. What is your name?
2. What is your age?
 - 18-30
 - 31-40
 - 41-50
 - Above 50
3. What is your gender?
 - Male
 - Female
 - Other
4. What is your profession?
 - Student
 - Self employed
 - Private sector employee
 - Public sector employee
 - Others
5. Do you prefer a UPI payment service?
 - Yes
 - No
6. What is the most preferred UPI app of yours?
 - Google Pay
 - Phone pe
 - Paytm
 - Bharat pe
 - Not yet used
7. Have you ever faced a problem while using UPI?
 - Yes
 - No
 - Not yet used

8. Has covid enhanced the usage of UPI?

- Yes
- No

9. Have you ever sent money to the wrong person?

- Yes
- No
- Not yet used

10. Dose the stores near your house accept UPI?

- Yes
- No

11. Do you prefer UPI when the transaction is below 10?

- Yes
- No
- Not yet used

12. Do you prefer UPI when the transaction is above 3,00,000?

- Yes
- No
- Not yet used

13. Have you ever faced a network issue while using UPI?

- Yes
- No
- Not yet used

14. Do you have any fear while using UPI payments?

- Yes
- No
- Not yet used

15. Do you use UPI for bill payments?

- Yes
- No

16. Have you experienced any fraudulence while using UPI?

- Yes
- No
- Not yet used

17. Will you recommend using UPI to other people?

- Yes
- No
- Not yet used

18. What is your frequency while using UPI payments?

- Daily
- Occasionally
- Rarely
- Not yet used

19. Perceived ease of using UPI payments

- Very easy
- Easy
- Difficult
- Complicated

20. Do you think proper training and education on how to use UPI could improve the usage of UPI payments?

- Yes
- No

21. Do you think the prevailing training programme can improve the usage of UPI among people?

- Yes
- No

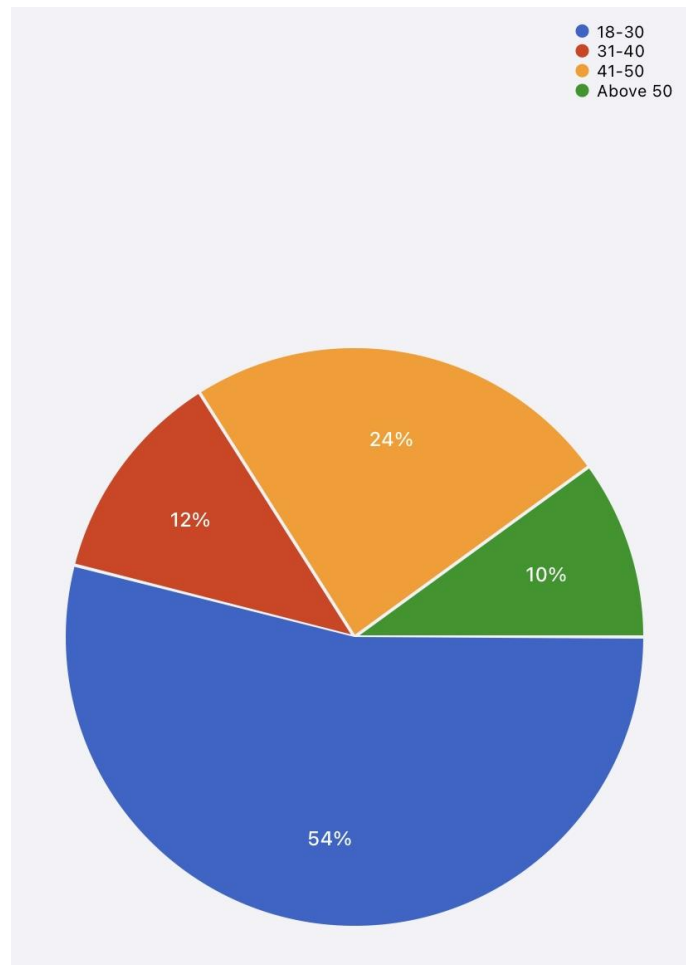
22. Are you satisfied with UPI payment service

- Highly satisfied
- Satisfied
- Moderate

- Dissatisfied
- Highly dissatisfied

2. What is your age?

AGE	RESPONSES	PERCENTAGE
18-30	54	54
31-40	12	12
41-50	24	24
Above 50	10	10



INTERPRETATION

From the study, we collected samples from the following age groups-

18-30- 54%

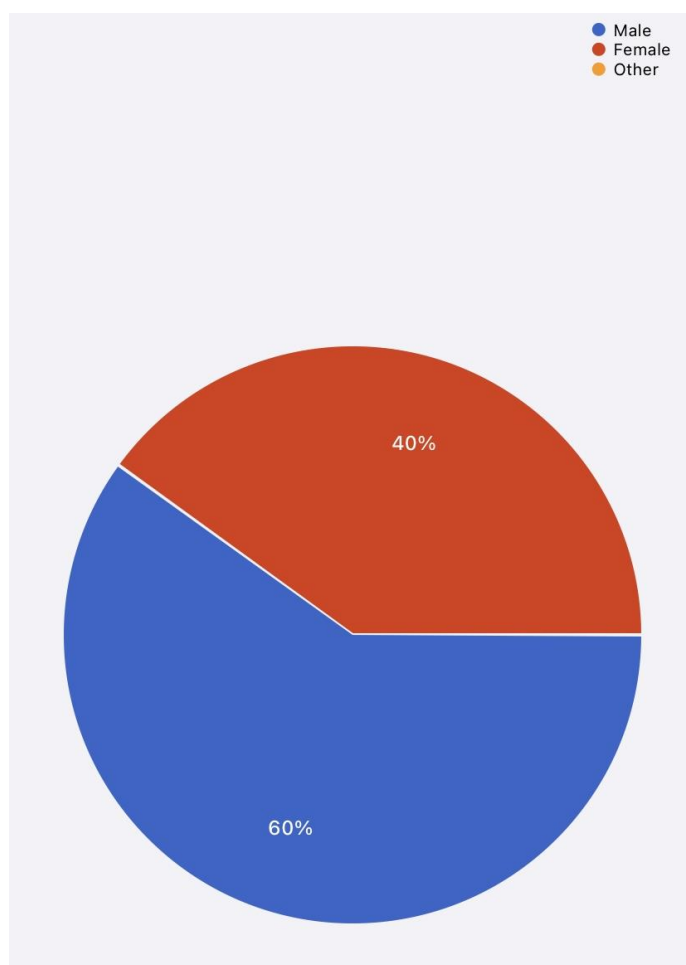
31-40- 12%

41-50- 24%

Above 50- 10%

3. What is your gender?

GENDER	RESPONSES	PERCENTAGE
Male	60	60
Female	40	40
Others	-	-

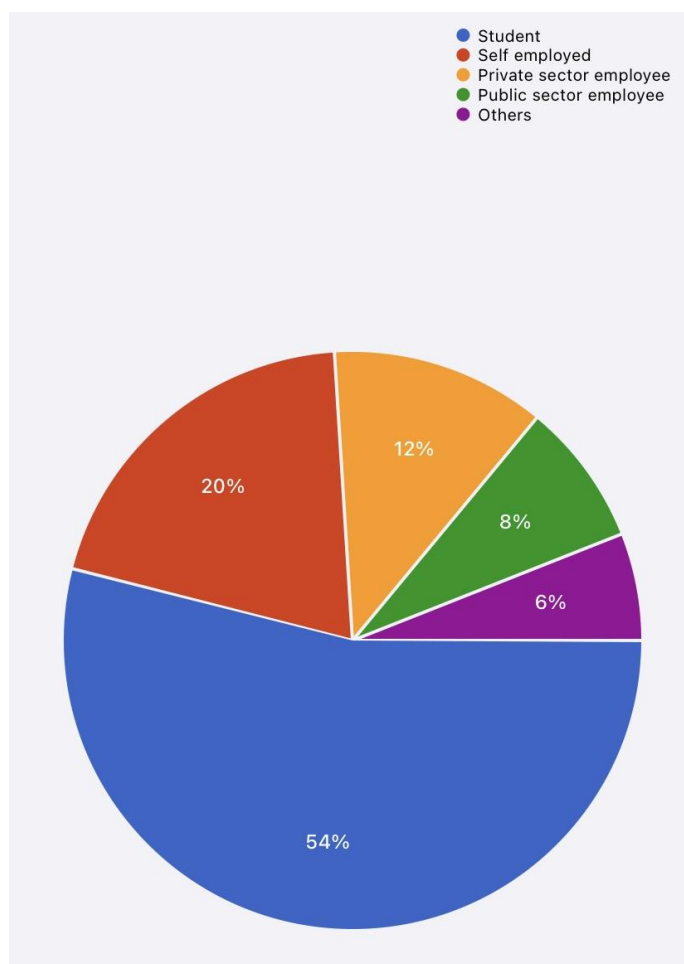


INTERPRETATION

From the above sample 40% are female and 60% are male.

4. What is your profession?

PROFESSION	RESPONSES	PERCENTAGE
Student	54	54
Self employed	20	20
Private employee	12	12
Public employee	8	8
Others	6	6

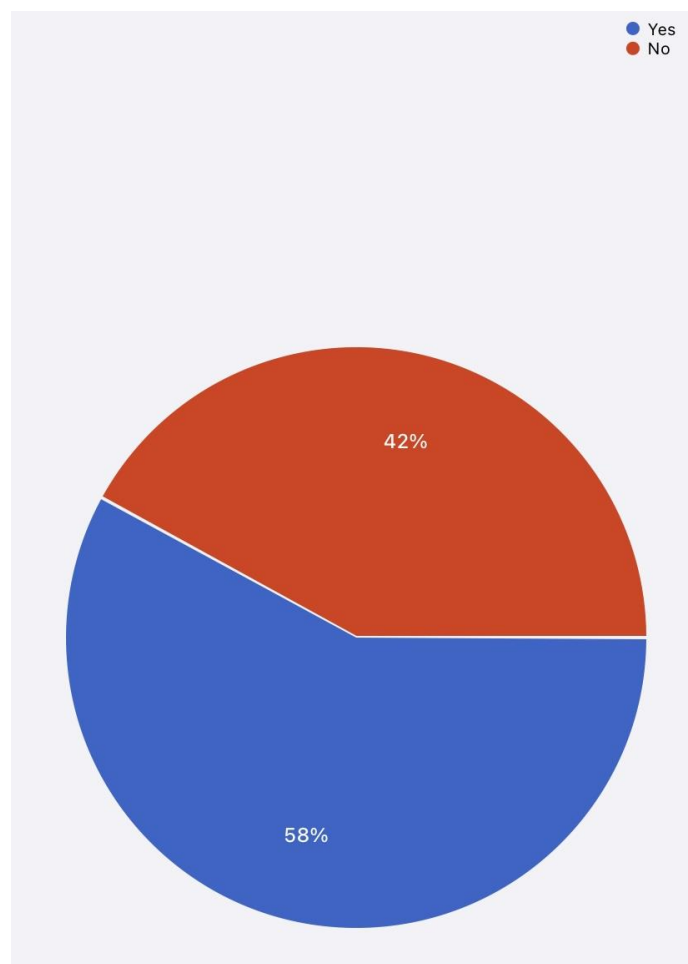


INTERPRETATION

From the study 54% are students. 20% are self-employed. 12% are private sector employees, 8% are public sector enterprises and 6% consist in other sectors.

5. Do you prefer a UPI payment service?

OPINION	RESPONSES	PERCENTAGE
Yes	58	58
No	42	42

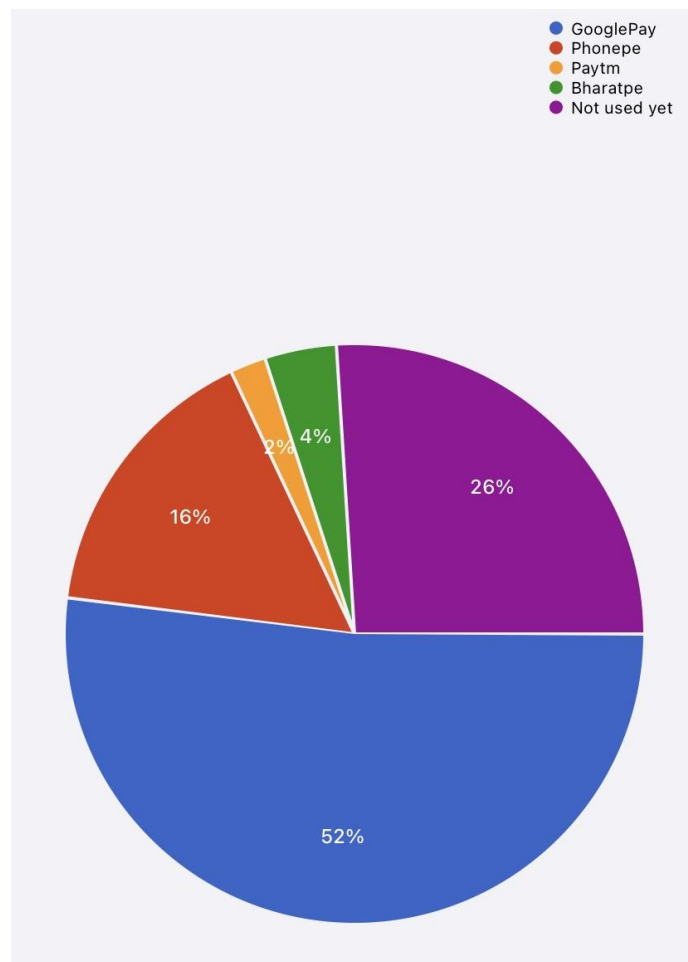


INTERPRETATION

According to our study 58% of people use UPI payment services and the remaining 42% do not use UPI payment services.

6. Which is the most preferred UPI app of yours?

OPTIONS	RESPONSES	PERCENTAGE
Google Pay	52	52
Phonepe	16	16
Paytm	2	2
Bharatpe	4	4
Not yet used	26	26



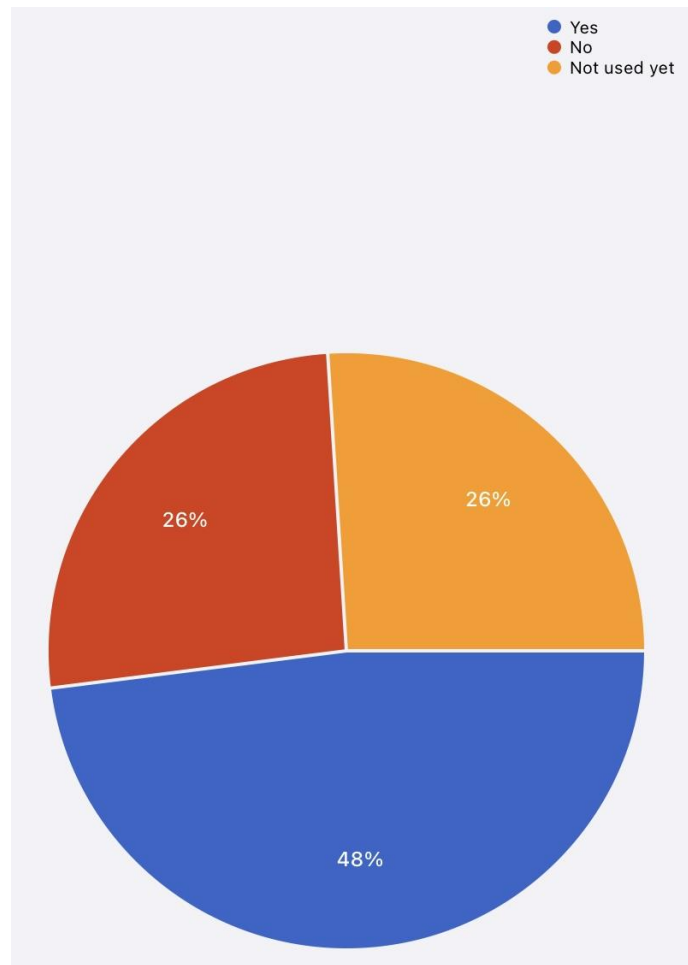
INTERPRETATION

The most used UPI app is Google pay with 52%, Phone pe 16%, Bharat pe 4% and Paytm 2%.

Most of the people have not used UPI apps with 26%.

7. Have you ever faced a problem while using UPI?

OPINION	RESPONSES	PERCENTAGE
yes	48	48
no	26	26
Not yet used	26	26

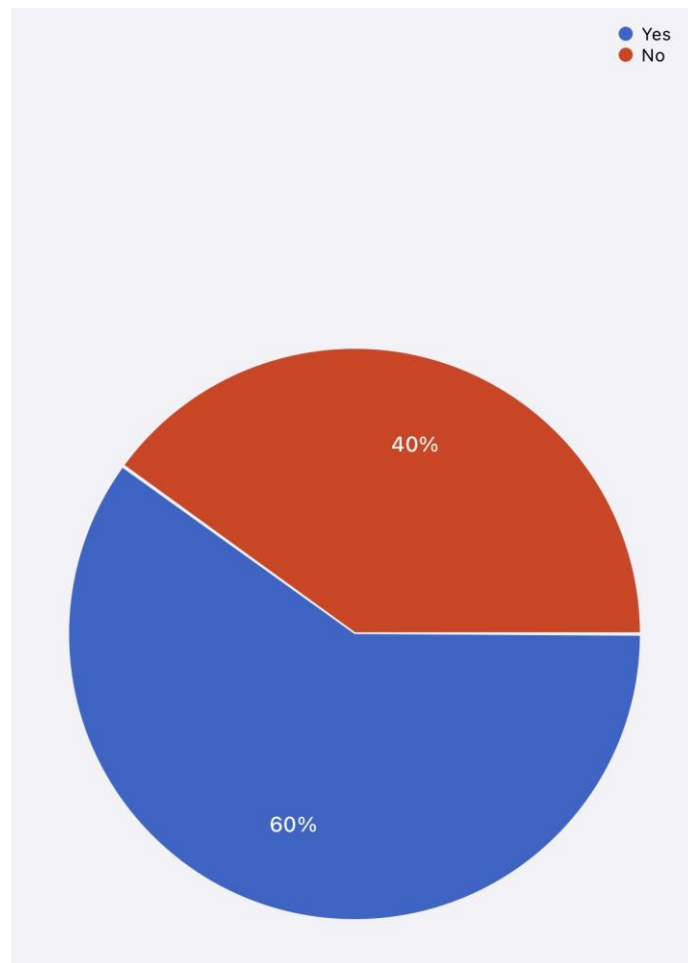


INTERPRETATION

From our study 48% of people have faced problems while using UPI apps and the remaining 26% have not faced any issues while using UPI apps. 26% of people have not used UPI apps.

8. Has covid enhanced the usage of UPI?

OPINION	RESPONSES	PERCENTAGE
yes	60	60
no	40	40



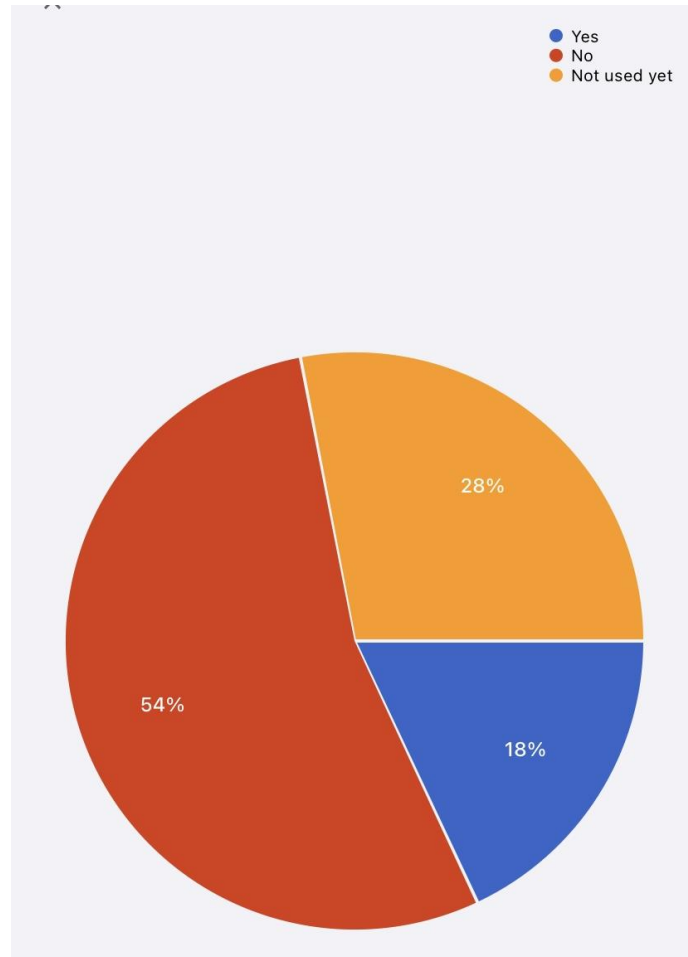
INTERPRETATION

The covid has enhanced the usage of UPI. 60% of people agree with it and the remaining 40% disagree with it.

9. Have you ever sent money to the wrong person?

OPINION	RESPONSES	PERCENTAGE
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Yes	18	18
No	54	54
Not yes used	28	28

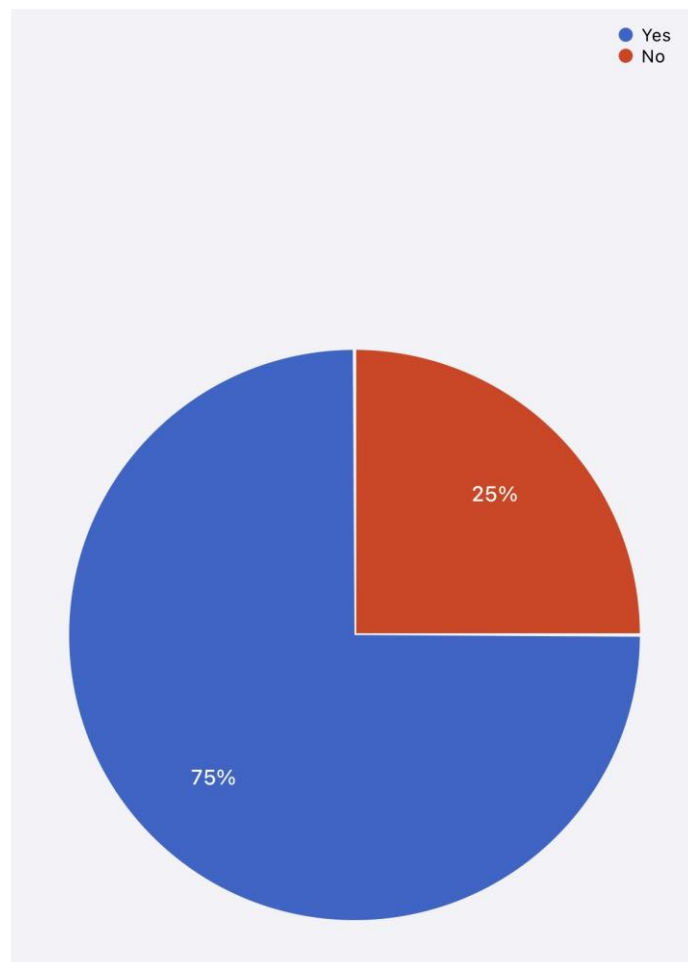


INTERPRETATION

One of the problems faced by many UPI users is sending money to the wrong person. 18% of users have sent money to the wrong person and 54% of users have not faced this issue and the remaining 28% users have not used UPI apps.

10. Does the stores nearby your house accept UPI.

OPINION	RESPONSES	PERCENTAGE
Yes	75	75
No	25	25

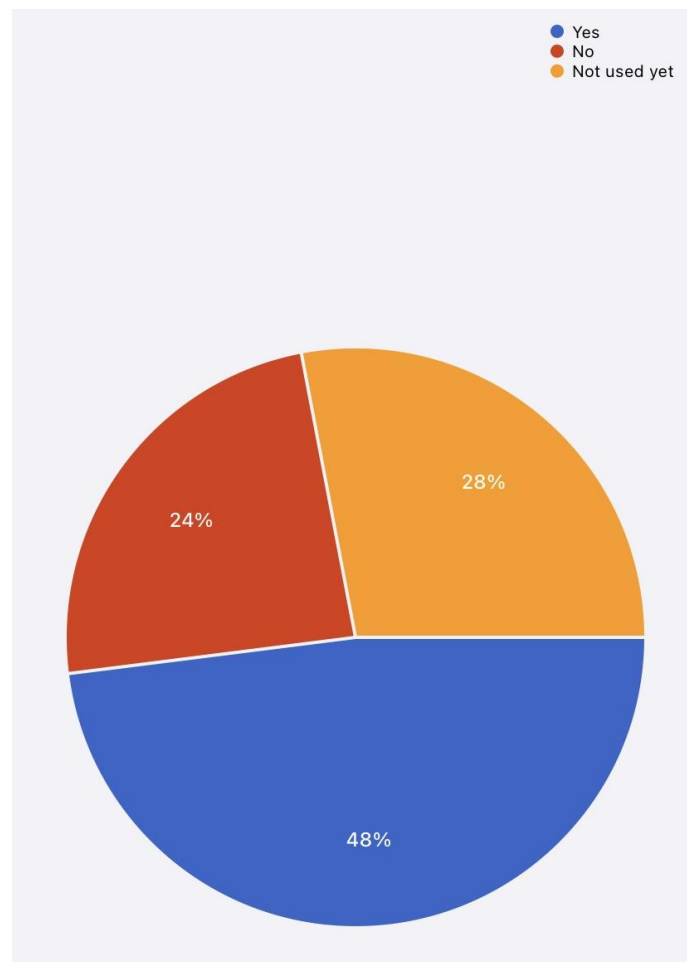


INTERPRETATION

From our study the majority of the shopkeepers nearby accept UPI payment facility. 75% of shopkeepers accept UPI payments and the rest 25% do not accept UPI payment facilities.

11. Do you prefer UPI when the transaction is below ₹10.

OPINION	RESPONSES	PERCENTAGE
Yes	48	48
No	24	24
Not yet used	28	28

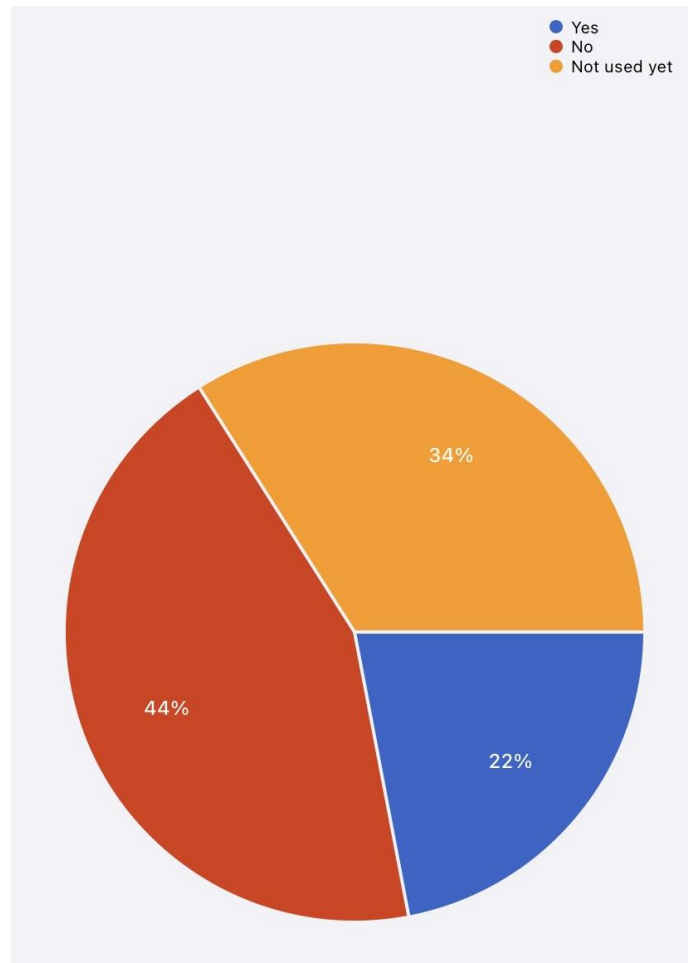


INTERPRETATION

Most the UPI users prefer UPI apps even when the transaction is below ₹10. 48% of users use UPI when the transaction is below ₹10 and 24% does not use UPI for these transactions and the remaining 28% users are not using UPI.

12. Do you prefer using UPI when the transaction is above ₹3,00,000?

OPINION	RESPONSES	PERCENTAGE
Yes	22	22
No	44	44
Not yet used	34	34

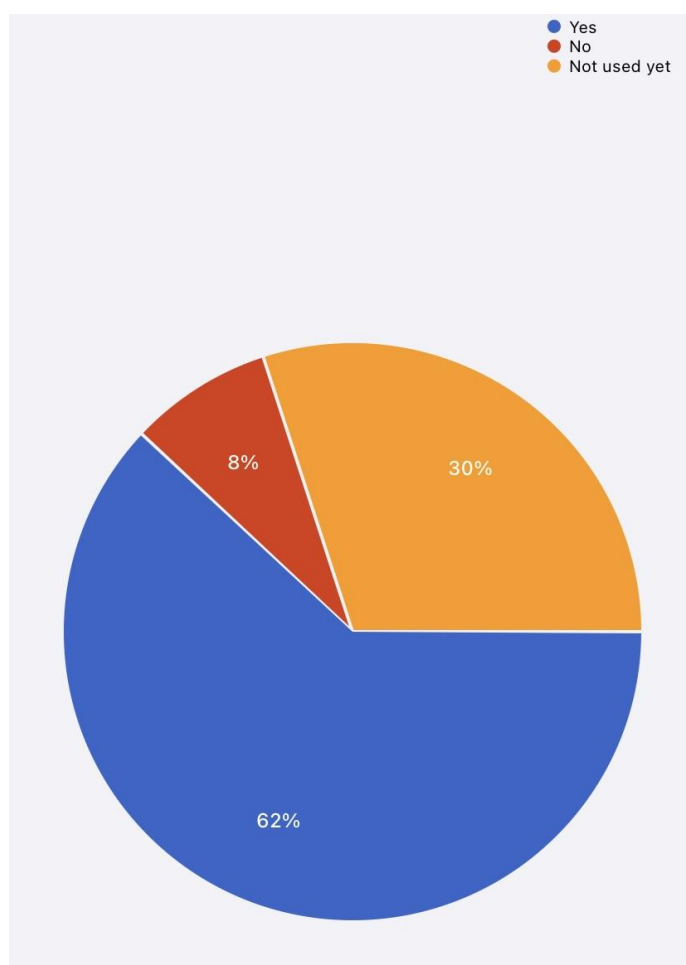


INTERPRETATION

Many users are afraid to use UPI apps when the transaction is above ₹3,00,000. 44% of users are not willing to send money when the transaction is above ₹3,00,000 and 22% of users are willing to use UPI apps for this transaction and the remaining 34% have not used UPI apps

13. Have you ever faced network issues while using UPI?

OPINION	RESPONSES	PERCENTAGE
Yes	62	62
No	8	8
Not yet used	30	30

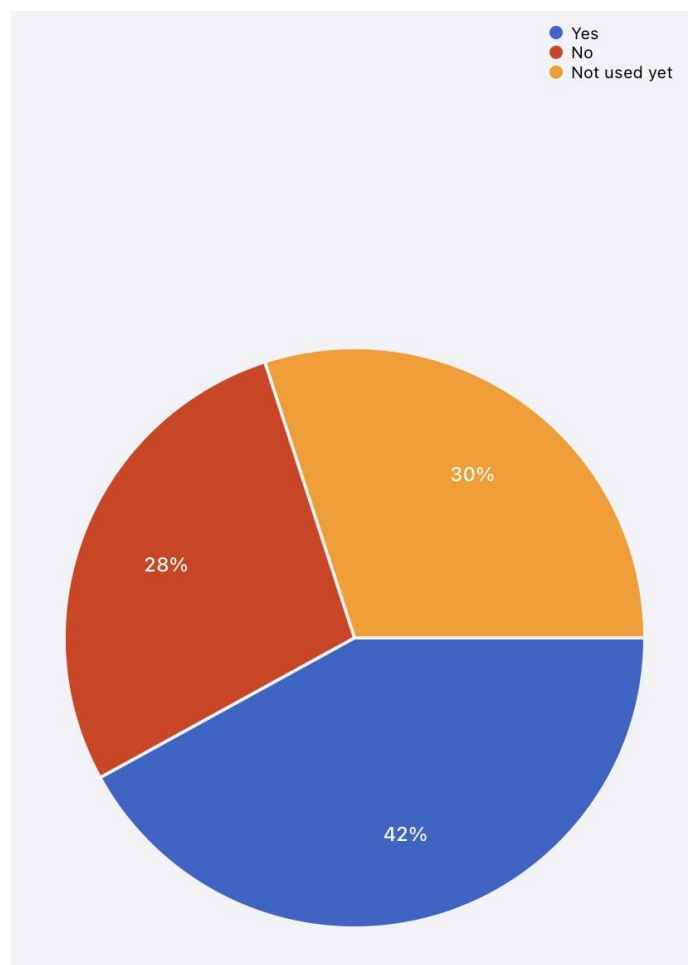


INTERPRETATION

The main problem faced by the majority of people is network issues. 62% of people face network issues and 8% of users do not face these problems and 30% of people do not use these apps.

14. Do you have any fear while using UPI payment?

OPINION	RESPONSES	PERCENTAGE
Yes	42	42
No	28	28
Not yet used	30	30

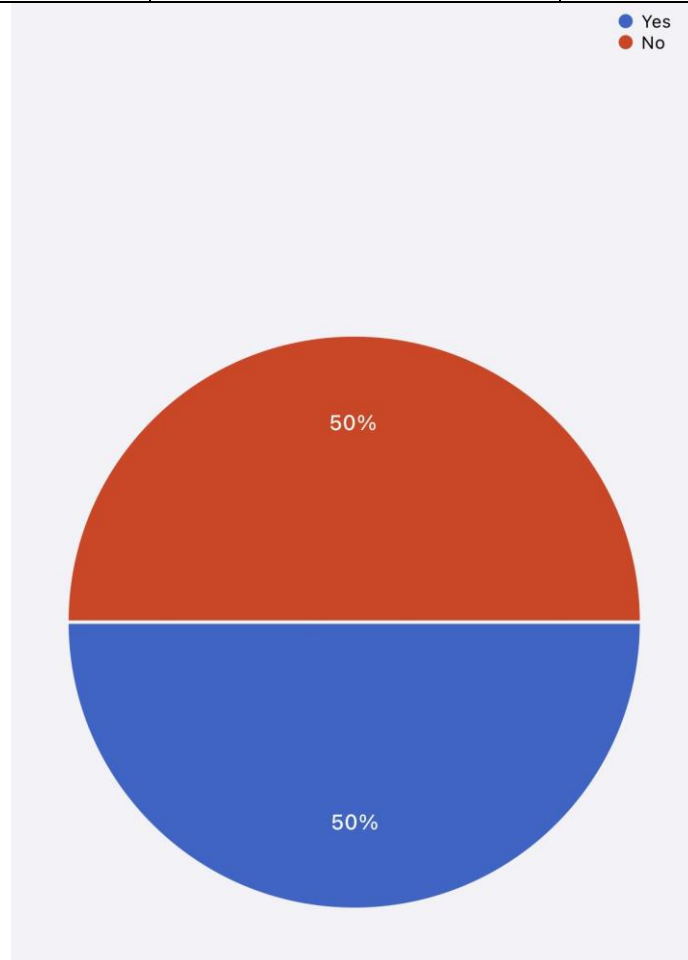


INTERPRETATION

Many people are afraid to use UPI payment facility. 42% of people have fear of using UPI and 28% of users do not face any fear of using UPI and the remaining 30% of people do not use UPI apps.

15. Do you use UPI for bill payment?

OPINION	RESPONSES	PERCENTAGE
Yes	50	50
No	50	50

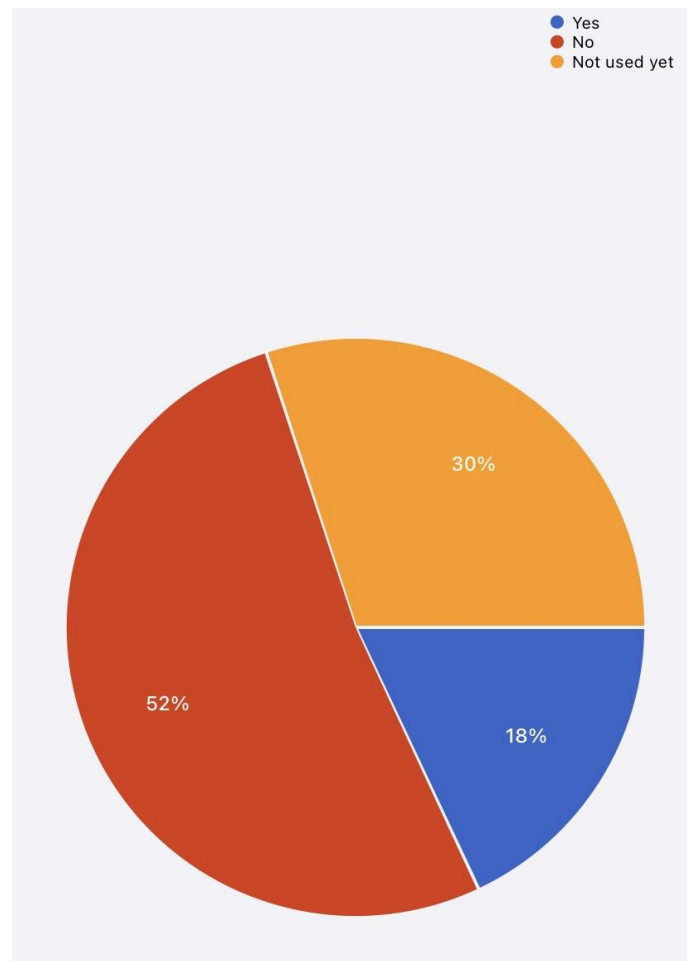


INTERPRETATION

UPI can be used for bill payments. 50% of people use UPI services to pay their bills and 50% of users use some other methods to pay the bills.

16. Have you experienced any fraudulence while using UPI?

OPINION	RESPONSES	PERCENTAGE
Yes	18	18
No	52	52
Not yet used	30	30

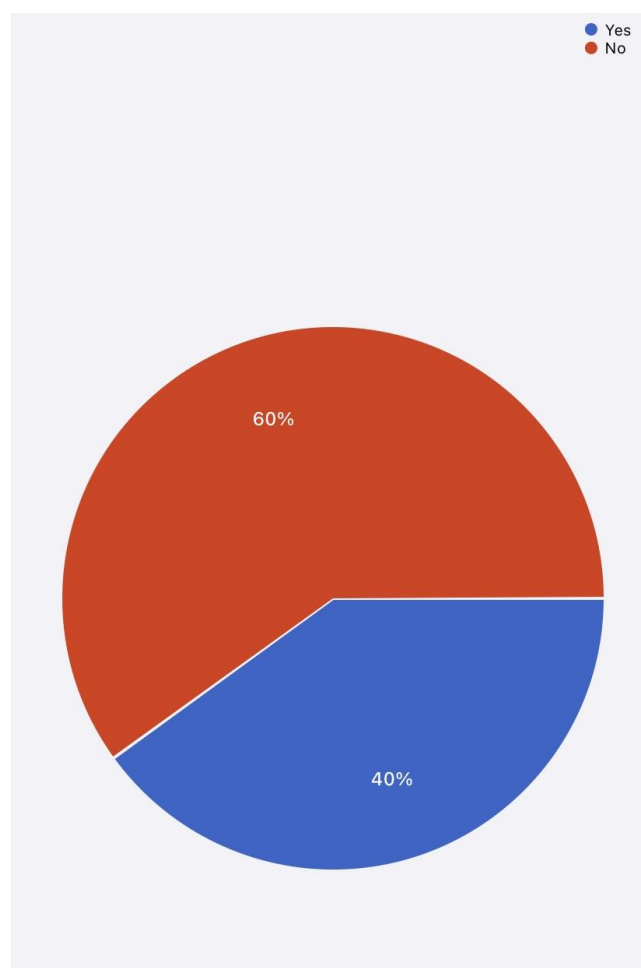


INTERPRETATION

From our study many users have faced fraudulence while using UPI. 18% of users have faced fraudulence while using UPI and 52% have not faced any problems. The remaining 30% of people are not using UPI services.

17. Will you recommend using UPI system to other people?

OPINION	RESPONSES	PERCENTAGE
Yes	40	40
No	60	60

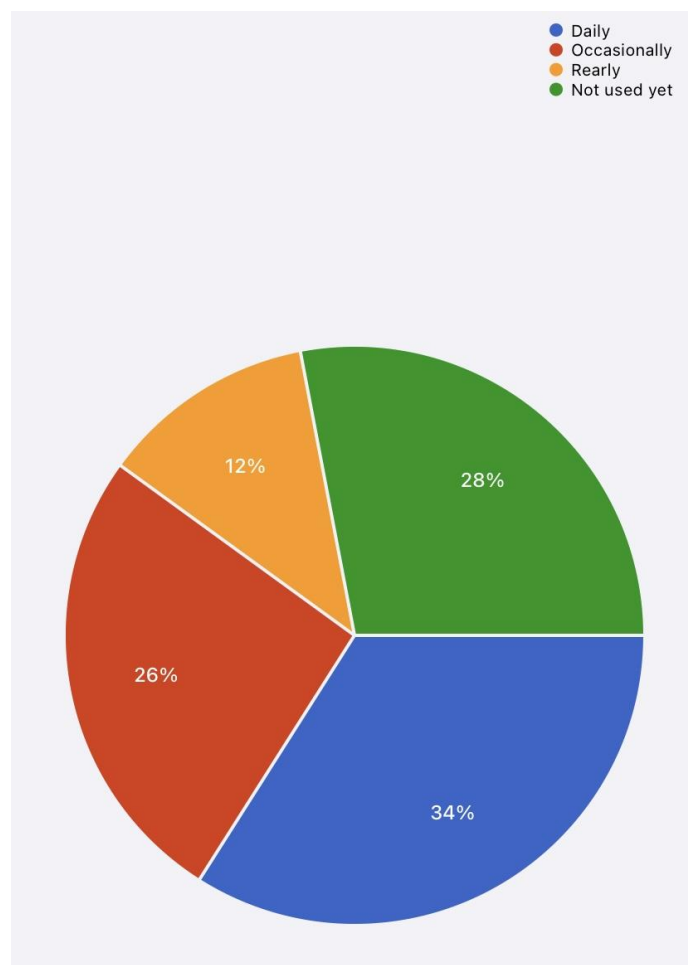


INTERPRETATION

UPI services can be recommended to other users. 40% of UPI users will recommend UPI to other people and 60% of users are not interested in recommending UPI services to other people.

18. What is your frequency in using UPI?

OPTIONS	RESPONSES	PERCENTAGE
Daily	34	34
Occasionally	26	26
Raely	12	12
Not yet use	28	28



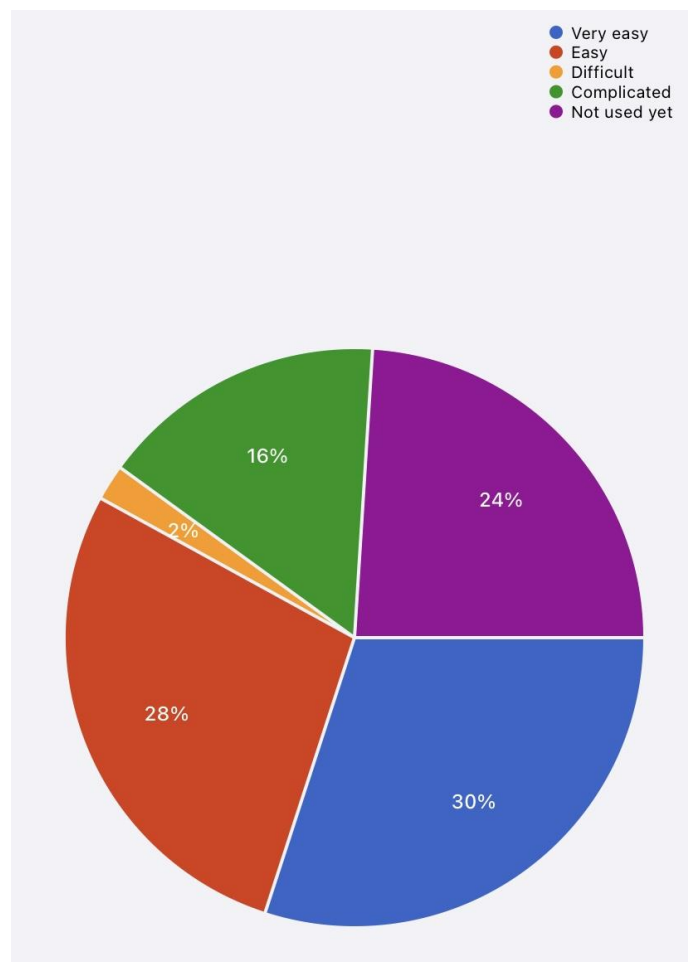
INTERPRETATION

Most of the people use UPI services daily. From our study 34% of users use UPI daily, 26%

occasionally, 12% rarely and 28% people have not used it yet.

19. Perceived ease of using UPI payment.

OPINION	RESPONSES	PERCENTAGE
Very easy	30	30
Easy	28	28
Difficult	2	2
Complicated	16	16
Not yet used	24	24

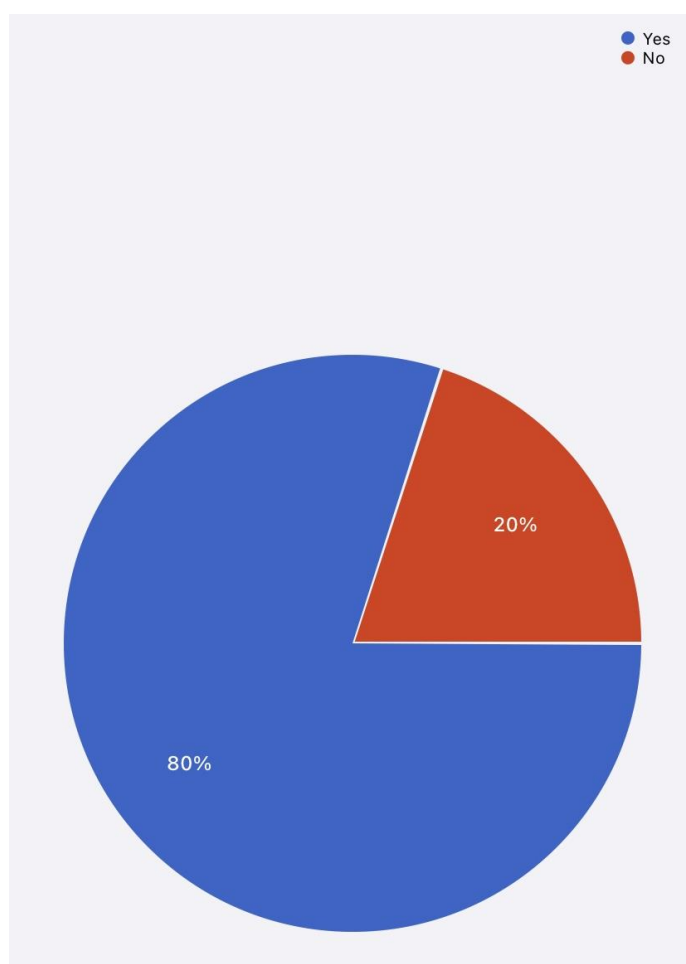


INTERPRETATION

From our study 30% of users find UPI services very easy to use. 28% find it easy. 2% find it difficult. 16% find it complicated and the remaining 24% have not used UPI services

20. Do you think proper training and education on how to use UPI could improve the usage of UPI payment?

OPINION	RESPONSES	PERCENTAGE
Yes	80	80
No	20	20

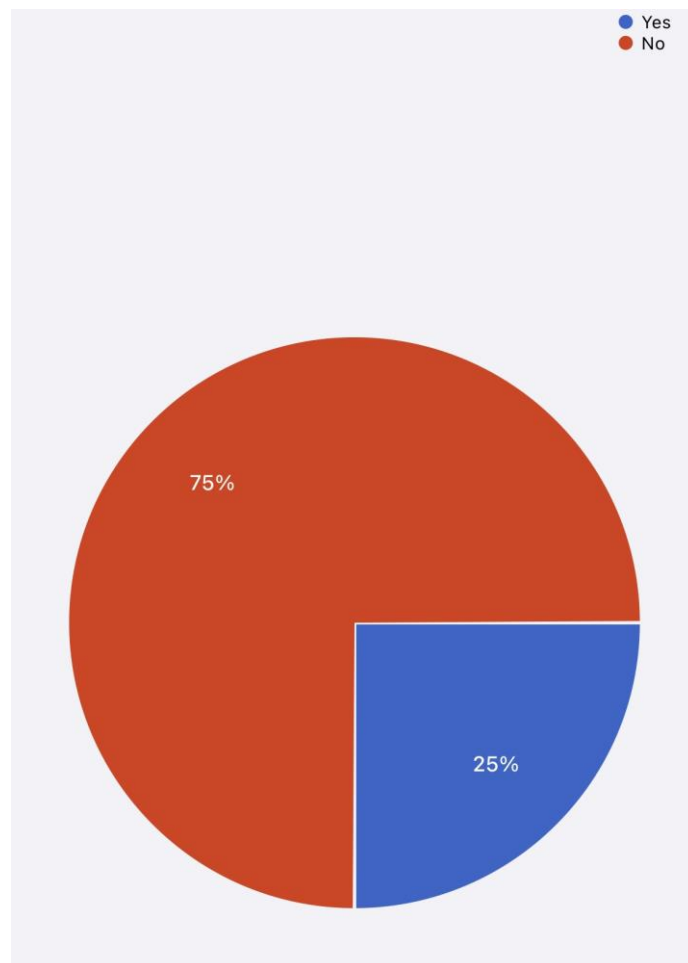


INTERPRETATION

80% of users agree that training can improve usage and 20% of users do not agree.

21. Do you think the prevailing training programs can improve the usage of UPI among people?

OPINION	RESPONSES	PERCENTAGE
Yes	75	75
No	25	25

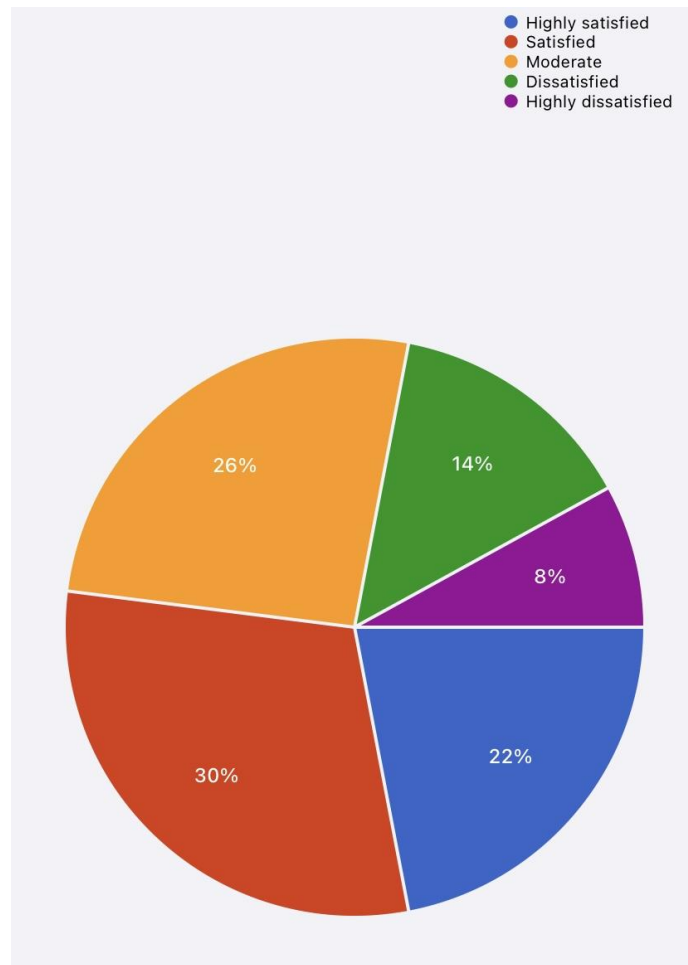


INTERPRETATION

From the study 75% of people agrees that the prevailing training programs can improve the usage among people and 25% of users does not agrees with it.

22. Are you satisfied with UPI payment service?

OPINION	RESPONSES	PERCENTAGE
Highly satisfied	22	22
Satisfied	30	30
Moderate	26	26
Dissatisfied	14	14
Highly dissatisfied	8	8



INTERPRETATION

The level of satisfaction can be stated below. 22% of people are highly satisfied. 30% of people are satisfied. 26% of people find it moderate. 14% of users find it dissatisfying and the remaining 8% find it highly dissatisfied.