

## “A STUDY ON CUSTOMERS PERCEPTION TOWARDS USING UPI (UNIFIED PAYMENT INTERFACE) PAYMENT METHOD WITH RELATION TO BANGALORE CITY”

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### ABSTRACT

Unified Payments Interface (UPI) is an online payment gateway that connects various bank accounts into a single mobile application, which allows combining several banking features, seamless fund routing & merchant payments under a single bracket. India has taken a most important move towards attaining a cashless nation with the introduction of the Unified Payment Interface (UPI). UPI is a payment system started by the National Payments Corporation of India (NPCI) along with the help of Reserve Bank of India (RBI) and Indian Banks Association (IBA) in the year 2016. NPCI aims in bringing radical innovations in the retail payment systems with the help of technology to create a new business model that gains greater efficiency in operations.

The researcher aims to find customer's perception towards UPI, to study the Pros and Cons of using UPI and to assess the level of satisfaction among Customers towards UPI, The researcher used primary and secondary sources for collection of data also Frequency distribution, Mean, One way ANOVA, Factor analysis and T test analysis for analysing and interpreting the data. In this study it is observed that there is a positive response and the perception of the customers towards unified payment interface is on the brighter side. However there are a comparatively smaller percentage of the general public are not acquainted with the technical knowledge about the usage and also face many other problems relating to transaction failure

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**KEYWORDS:** *Unified payment interface, Payment Gateway, Money transfer, National Payments Corporation of India.*

## 1. INTRODUCTION

UPI is a single platform that combines many banking services and features combined into one group. A UPI ID and PIN are enough to send and receive payments. Real-time bank-to-bank payments can be made using a mobile number or virtual payment address (UPI ID) has made the money transfer process a lot easier. In order to initiate a UPI money transfer, you need to know your Aadhaar number, mobile phone number registered with the bank account( only if your bank supports UPI facility), or UPI ID. You can download any UPI supporting app on smart phone. You need not know the receiver's bank account number, type of bank account, IFSC, bank name or branch name. In all UPI transactions, a UPI ID looks like this..... For example, if your mobile number is 90000000060 and if you are using Paytm app, the UPI ID can be '9000000000@paytm'. The following steps are required to set up UPI for digital payments:

Step 1: First, download or install an app that supports UPI payments from Google play store.

Step 2: Select any language you prefer to use for transactions.

Step 3: In case if you have a Dual sim, then select the SIM in which you're mobile number is registered with your bank account and enter the email id that is registered with your bank account.

Step 4: Now, You will get an OTP to verify your mobile number and Email ID.

Step 5: On entering the OTP, you will get a list of banks names. Select the bank name in which you have an account.

Step 6: Set up UPI ID, by providing last six digits and expiry date of your debit card.

Step 7: Set up a password or access login for using the app.

## FEATURES OF UPI

- It initiates immediate money transfer through your smart phone.
- UPI Transactions can be made at any given time since it is available 24 hours/7 days.
- It requires a single mobile application for connecting and engaging various bank accounts of customers around the world.
- Only a single click for payment is required to make the UPI system quite attractive
- For formulating UPI transactions, your Virtual Payment Address (VPA) is the main requirement. Other Banking Details are not required
- You can carry out fund transfer payments, merchant payments, utility bill payments, in-app payments, over the counter payments and QR code based payments.
- Complaints and queries can be raised

- It is an alternative method used instead of Cash on delivery issues or not having the exact amount of change.
- This facility is used for making donations for charity and collections

## 2. REVIEW OF LITERATURE

**Radhika Basavaraj Kakade, Prof. Nupur A.**

**Veshne (2017)** In their study reported that even if RTGS, NEFT and CTS are used large payments. UPI is most preferred source of payment since it lacks larger requirements. UPI is changing and transforming the world into digital one. UPI transactions offers various benefits to the customers such as seamless transactions, increased security, more convenience and keeps a track of your spending.. Thus it puts to end to circulation of currency notes and becoming cashless economy.

**Mahesh A, Ganesh Bhat (2021)** In their study stated that the progression of UPI in retail digital payment has increased over the years since the Covid pandemic has brought people to adapt contactless payment over other payment options. UPI stands first in terms of volume of transactions when compared to other digital payment. Because it offers superior advantages and security features.

**G.Sankararaman, S.Suresh( 2021)** In their study reported that parameters of UPI

transactions such as awareness level, safety level, satisfaction level, usage level, problems encountered by the users of UPI, and duration to solve the problems.

**K. Suma Vally and K. Hema Divya (2018)** in their study examine the adoption of digital payments and the consumer's perspective towards the digital payments and its role in the banking sector of India. Due to the technological innovation, the banking services are becoming more effective and faster because of the cashless transactions being made. Banks are taking measures in promoting the use of technology and digital payments.

**Dr. C. Poorna Pushkala, and Dr. C. Pappeswari (2021)** In their study they have attempted to study the awareness and customer satisfaction towards the application of unified payments interface. Here the Gender of the respondents has been considered to know the usage level of UPI Payments and various issues and challenges while using UPI. Even UPI has its limitations, yet it is more preferred method of payment because of its simplified and supply one interface across all NPCI system besides with creating interoperability and superior customer experience

**Kalpesh Dinesh Mishra (2017)** In his study, it reported that the advantages and registration procedures of UPI has been pointed out. The UPI Application is very secure method to send or transfer the money because it has two factor

Authentication for user i.e. Application Password and Mobile Banking Personal Identification number for Common Library pages.

**Dr. Virshree Tungare (2018)** In her study, reported that the Awareness and Adoption of UPI Payments among Business and Service Customers has been considered. Due to the features of UPI payments, convenience of using Mobile phones, digitalization, Flexibility and easy tracking of money, fewer procedures has helped the growth and adoption of UPI Payments.

**Aarti Sharma (2016)** in her study, The Concept, Evolution, Need, usage, features, architecture and security application , Advantages, uniqueness and future prospects, Implementation and spread of Unified Payments Interface (UPI) in the national framework was completely studied.

**Jayaram Narayanan (2021)** In his study, reported that, the growth of UPI Apps after the covid-19 has been considered. As the pandemic set in and consumers started opting for digital payments, UPI transactions grew in double digits through the lockdown months. Google Pay, PhonePe and Bharat Interface for Money (BHIM) had seen millions of transactions by the end of March were processed during the Covid-19 break in Second wave.

**Roshna Thomas and Dr. Abhijeet Chatterjee (2017)** Their study reported that the Financial inclusion and banking facilitates paved the way

for the adoption of UPI payments. The banks have been entrusted with the responsibility of executing the UPI services, thus not allowing wallet players to be a part of it.

**Shailesh Rastogi\* , Chetan Panse, Arpita Sharma, Venkata Mrudula Bhimavarapu(2021)** Their study reported that the advent of digitalization paved the way for UPI Payments as one such innovation which supports the digitalized economy and contributes to the financial inclusion.

### 3. STATEMENT OF THE PROBLEM

Most customers use UPI for smaller fund transfers, when an amount is higher, they prefer other modes of online transfer. Some customers feel UPI payment methods are not secured and are not reliable, hence they are reluctant to give their sensitive information like bank details, debit card or credit card number etc ,If a customer wants to make UPI transactions then, the transaction limit per day for any UPI transaction is Rs 1,00,000. The limit may be revised from time-to-time, To transfer money from UPI a pin is required also known as the UPI pin, and it is a very small digit, 4 to 6 digit while having a small digit, it is not safe, so customers need to make their payment carefully and keep the pin number confidential, When a customer wants to make a UPI transaction he should ensure that he has a working internet otherwise this mode of payment does not come into use or the transaction may fail mid-way. Customers may sometimes face

problems while performing a UPI transaction if the Bank server is down, the long waiting period may cause inconvenience.

#### **4. OBJECTIVES OF THE STUDY**

1. To study the Pros and Cons of using UPI
2. To assess the level of satisfaction among Customers towards UPI

#### **5. HYPOTHESIS**

H1o: There is no significant difference in adoption of UPI system between the male and feminine customers.

H1a: There is a significant difference in adoption of UPI system between the male and feminine customers.

H2o: There is no significant difference in adoption of UPI system between different age groups

H2a: There is a significant difference in adoption of UPI system between different age groups

#### **6. RESEARCH GAP**

Unified Payment Interface (UPI) is one of the most vital move towards attaining a cashless economy in India, with the launch of the Unified Payment Interface (UPI). The new payment model allows you to use your smart phones to make easy and quick payments, sending and receiving money is also now hassle free. The concept of QR code has removed the usage of digital wallets, debit cards, credit cards and currency notes, However Customers do face

problems in relation to Transaction limit which varies from Bank to bank Moreover, growing awareness of online frauds and hacking may make customers reluctant. Thus this Study is focused to fill the gap on the Customers perception towards UPI with reference to Bangalore city.

#### **7. METHODOLOGY**

##### TYPES OF DATA

Primary data and secondary data collected from various sources such as Research papers, newspapers, websites, and journals.

##### SAMPLE SIZE

The data was collected from 150 respondents.

##### SAMPLING TECHNIQUE

The data was collected using Non-probability sampling technique, according to the convenience sampling method

AREA OF STUDY The research would be taken place in Bangalore city. HBR layout, Ramamurthy nagar, Kamanahalli, Marathahalli, Shivaji Nagar, Bangalore.

##### METHOD

The data was collected by distributing questionnaire

##### TOOLS

The data was analysed using Frequency distribution, Mean, Factor Analysis One

way ANOVA and T test in order to analyze the primary data collected by the researcher.

## 8. LIMITATIONS OF THE STUDY:

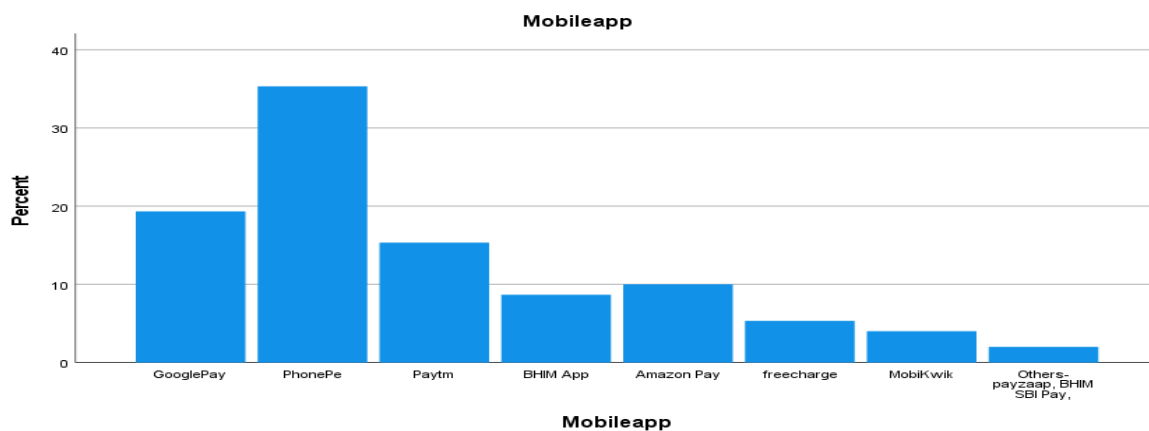
1. The sample size is only limited to 150 respondents.
2. The area of the study is limited to Bangalore City.

## 9. ANALYSIS AND INTERPRETATION

**Table No. 9.1 : Mobile app used for UPI payments**

| Mobileapp |  |           |         |               |                    |
|-----------|--|-----------|---------|---------------|--------------------|
|           |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid     | GooglePay                                | 29        | 19.3    | 19.3          | 19.3               |
|           | PhonePe                                  | 53        | 35.3    | 35.3          | 54.7               |
|           | Paytm                                    | 23        | 15.3    | 15.3          | 70.0               |
|           | BHIM App                                 | 13        | 8.7     | 8.7           | 78.7               |
|           | Amazon Pay                               | 15        | 10.0    | 10.0          | 88.7               |
|           | Freecharge                               | 8         | 5.3     | 5.3           | 94.0               |
|           | MobiKwik                                 | 6         | 4.0     | 4.0           | 98.0               |
|           | Others-<br>payzaap,<br>BHIM SBI<br>Pay.. | 3         | 2.0     | 2.0           | 100.0              |
|           | Total                                    | 150       | 100.0   | 100.0         |                    |

**Figure No. 9.1 : Mobile app used for UPI payments**



Source: Primary Data

The table shown above describes the mobile app used for UPI, 19.3% of the respondents use Google pay, 35.3% of the respondents use PhonePe, 15.3 % of the respondents are using Paytm, 8.7% of the respondents are using BHIM,

10% of the respondents are using Amazon Pay, 5.3% of the respondents are using freecharge, 4% of the respondents are using Mobiwik and 2% of the respondents are using other apps like payzaap, BHIM SBI pay etc. Majority of the respondents are using PhonePe.

**Table No. 9.2: Level of satisfaction towards various facilities of UPI**

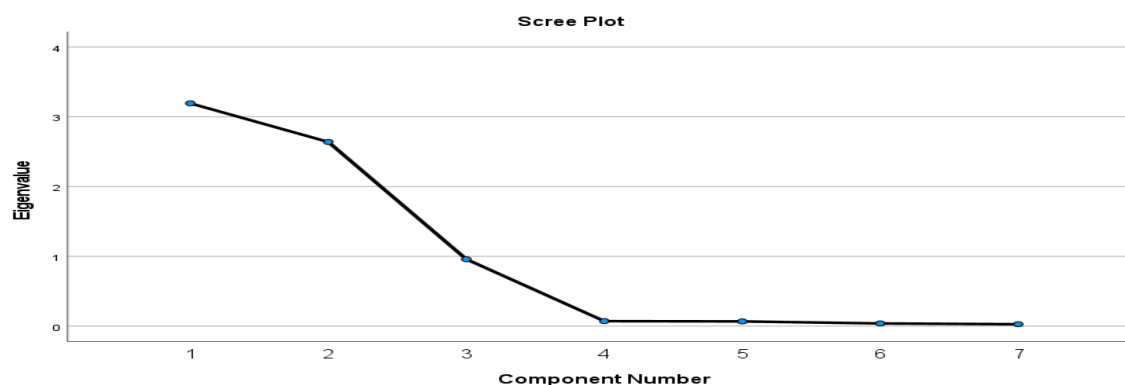
| Descriptive Statistics |        |                |            |
|------------------------|--------|----------------|------------|
|                        | Mean   | Std. Deviation | Analysis N |
| Bill_payment           | 2.1267 | .98510         | 150        |
| Recharge               | 2.0867 | 1.00293        | 150        |
| Fund_transfer          | 2.1600 | .97678         | 150        |
| Balance_enquiry        | 1.8600 | .86723         | 150        |
| Privacy                | 1.8533 | .86998         | 150        |
| Rewards_Benefits       | 2.0600 | 1.01816        | 150        |
| Contact_less_payment   | 1.8200 | .85192         | 150        |



| KMO and Bartlett's Test                          |                    |          |
|--|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .763     |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 1469.949 |
|  | Df                 | 21       |
|  | Sig.               | <.001    |

| Total Variance Explained                         |                                     |               |              |                                   |               |              |
|--|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| Component  | Extraction Sums of Squared Loadings |               |              | Rotation Sums of Squared Loadings |               |              |
|  | Total                               | % of Variance | Cumulative % | Total                             | % of Variance | Cumulative % |
| 1  | 3.194                               | 45.630        | 45.630       | 2.928                             | 41.827        | 41.827       |
| 2  | 2.641                               | 37.722        | 83.352       | 2.907                             | 41.525        | 83.352       |
| Extraction Method: Principal Component Analysis. |                                     |               |              |                                   |               |              |

**Figure No. 9.2: Level of satisfaction towards various facilities of UPI**



Source: Primary Data

In the table shown above KMO value is  $0.763 > 0.60$  and the Bartlett's test is more than

0.4 (1469.949) and the variable explained is 83.352 which is desirable.

The variables available are apt for the study and the components are given below



| Rotated Component Matrix <sup>a</sup>    |                      |           |      |
|--|----------------------|-----------|------|
|  |                      | Component |      |
|  |                      | 1         | 2    |
| <b>Factor-1 Money related facilities</b> | Bill_payment         | .990      |      |
|  | Recharge             | .980      |      |
|  | Fund_transfer        | .980      |      |
| <b>Factor -2 Other facilities</b>        | Balance_enquiry      |           | .979 |
|  | Privacy              |           | .977 |
|  | Rewards_Benefits     |           | .948 |
|  | contact_less_payment |           | .965 |

The analysis reveals that there are 2 dimensions in the facilities provided by

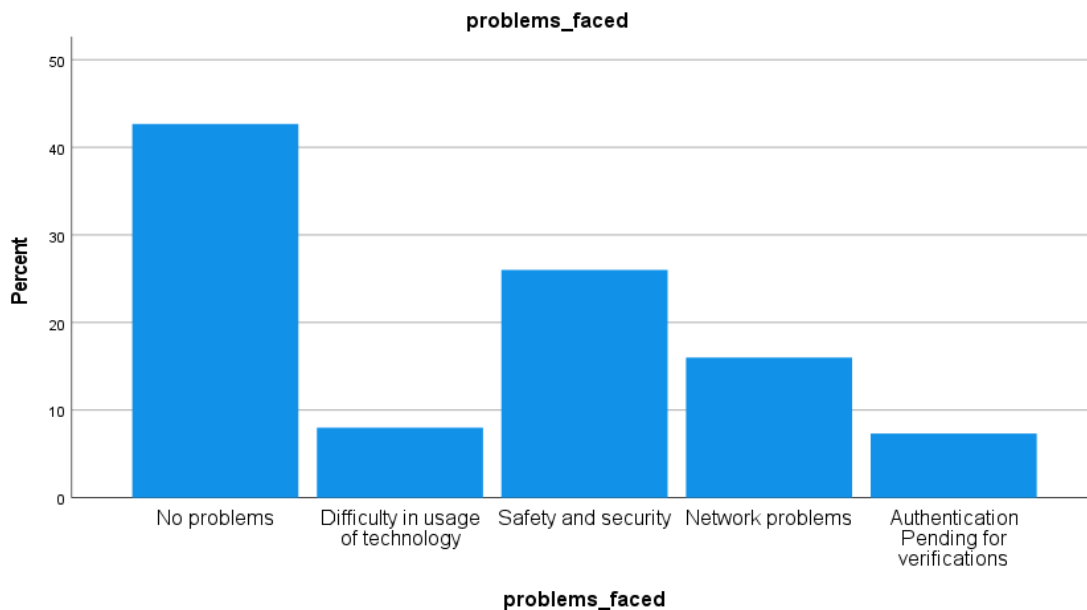
UPI apps they are money related facilities and other facilities.

**Table No. 9.3: Problems faced while using UPI**

| Problems_faced |  |               |             |                  |                       |
|----------------|--|---------------|-------------|------------------|-----------------------|
|                |  | Frequen<br>cy | Perc<br>ent | Valid<br>Percent | Cumulative<br>Percent |
| <b>Valid</b>   | <b>No problems</b>                       | 64            | 42.7        | 42.7             | 42.7                  |
|                | <b>Difficulty in usage of technology</b> | 12            | 8.0         | 8.0              | 50.7                  |
|                | <b>Safety and security</b>               | 39            | 26.0        | 26.0             | 76.7                  |
|                | <b>Network problems</b>                  | 24            | 16.0        | 16.0             | 92.7                  |
|                | <b>Authentication Pending for</b>        | 11            | 7.3         | 7.3              | 100.0                 |

|  |                      |     |       |       |  |
|--|----------------------|-----|-------|-------|--|
|  | <b>verifications</b> |     |       |       |  |
|  | <b>Total</b>         | 150 | 100.0 | 100.0 |  |

**Figure No. 9.3: Problems faced while using UPI**



Source: Primary Data

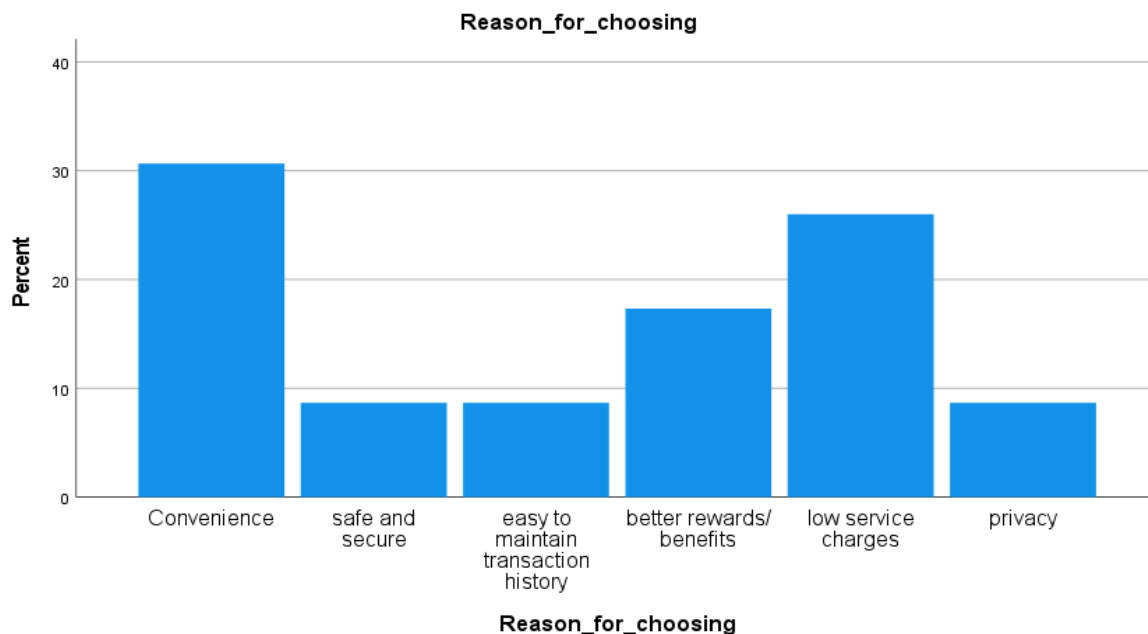
The table shown above describes the problems faced while using UPI payment method, 42.7% of the respondents have no problems, 8% of the respondents have difficulty in usage of

technology, 26% of the respondents have safety and security problems, 16% of the respondents have network problems, 7.3 % of the respondents face problems with authentication pending for verification, Majority of the respondents have no problems with using UPI payment methods.

**Table No. 9.4: Reasons for choosing UPI services**

|       |                                      | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------------------------|-----------|---------|---------------|--------------------|
| Valid | Convenience                          | 46        | 30.7    | 30.7          | 30.7               |
|       | safe and secure                      | 13        | 8.7     | 8.7           | 39.3               |
|       | easy to maintain transaction history | 13        | 8.7     | 8.7           | 48.0               |
|       | better rewards/ benefits             | 26        | 17.3    | 17.3          | 65.3               |
|       | low service charges                  | 39        | 26.0    | 26.0          | 91.3               |
|       | privacy                              | 13        | 8.7     | 8.7           | 100.0              |
|       | Total                                | 150       | 100.0   | 100.0         |                    |

**Figure No. 9.4: Reasons for choosing UPI services**



Source: Primary Data

The table shown above describes the Reasons for choosing UPI services, 30.7% of the respondents have say convenience, 8.7% of the respondents choose safe and secure, Privacy and easy to

maintain transactions, 17.3% choose better rewards and benefits, 26% say low service charges, Majority of the respondents choose UPI payment method because it is Convenient to UPI payments.

**Table No. 9.5: Security measures to secure one from various kinds of security breaches**

| Security_measures |                              |           |         |               |                    |
|-------------------|------------------------------|-----------|---------|---------------|--------------------|
|                   |                              | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid             | Self Awareness               | 41        | 20.7    | 27.3          | 27.3               |
|                   | User Education               | 70        | 35.4    | 46.7          | 74.0               |
|                   | Limiting Online Transactions | 13        | 6.6     | 8.7           | 82.7               |
|                   | Being Cautious               | 26        | 13.1    | 17.3          | 100.0              |
|                   | Total                        | 150       | 75.8    | 100.0         |                    |
| Missing           | System                       | 48        | 24.2    |               |                    |
| Total             |                              | 198       | 100.0   |               |                    |

Source: Primary Data

The table shown above describes the Security measures to secure one from various kinds of security breaches 20.7% of the respondents

choose self awareness, 35.4% of the employees choose user education, 6.6% of the respondents choose limiting online transactions, 13.1% of the respondents choose being cautious, majority of the respondents choose user education

**Table No. 9.6: Respondents' recommendation towards using UPI payment method.**

| Recommend |                        |           |         |               |                    |
|-----------|------------------------|-----------|---------|---------------|--------------------|
|           |                        | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid     | Not Worth Recommending | 23        | 15.3    | 15.3          | 15.3               |
|           | Highly Recommended     | 127       | 84.7    | 84.7          | 100.0              |
|           | Total                  | 150       | 100.0   | 100.0         |                    |

The table shown above describes the respondents recommendation towards using UPI 15.3% of the respondents say UPI payment system is not worth recommending and 84.7% of the

respondents highly recommend it. Majority of the respondents highly recommend UPI payment method.

**Table No. 9.7 Adoption of UPI system among the male and female customers.**

| Group Statistics |        |    |        |                |                 |
|------------------|--------|----|--------|----------------|-----------------|
|                  | Gender | N  | Mean   | Std. Deviation | Std. Error Mean |
| Use              | Male   | 93 | 1.0000 | .00000         | .00000          |
|                  | Female | 57 | 1.3333 | .47559         | .06299          |

|             |                             | Levene's Test for Equality of Variances |       | t-test for Equality of Means |        |              |             |                 |                       |   |         |
|-------------|-----------------------------|---|-------|------------------------------|--------|--------------|-------------|-----------------|-----------------------|---|---------|
|             |                             | F                                       | Sig.  | t                            | Df     | Significance |             | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |         |
|             |                             |   |       |                              |        | One-Sided p  | Two-Sided p |                 |                       | Lower                                     | Upper   |
| u<br>s<br>e | Equal variances assumed     | 734.080                                 | <.001 | -6.773                       | 148    | <.001        | <.001       | -.33333         | .0492                 | -.43058                                   | -.23609 |
|             | Equal variances not assumed |   |       | -5.292                       | 56.000 | <.001        | <.001       | -.33333         | .0629                 | -.45953                                   | -.20714 |

In the above table which shows the T test carried out t value is 6.77 and the P value is <.001 and hence we reject the null hypothesis and state that there is a significant difference in adoption of UPI system among the male and female

customers, where the usage is more common among male than females.

H1o: There is no significant difference in adoption of UPI system among the male and female customers.

H1a: There is a significant difference in adoption of UPI system among the male and female customer

**Table No. 9.8: Adoption of UPI system among different age groups**

| ANOVA          |                |     |             |         |      |
|----------------|----------------|-----|-------------|---------|------|
| use            |                |     |             |         |      |
|                | Sum of Squares | Df  | Mean Square | F       | Sig. |
| Between Groups | .516           | 2   | .172        | 434.563 | .001 |
| Within Groups  | 16.077         | 146 | .110        |         |      |
| Total          | 16.593         | 149 |             |         |      |

In the above table which shows the One way ANOVA test carried out F value is 434.563 and the P value is <.001 and hence we reject the null hypothesis that there is no significant difference in adoption of UPI system between different age groups and state that there is a significant difference in adoption of UPI system between different age groups and UPI services usage is higher among customers who belong to the age group of 18 to 36 years of age

H2o: There is no significant difference in adoption of UPI system between different age groups

H2a: There is a significant difference in adoption of UPI system between different age groups

## 10. FINDINGS

- Most of the respondents are using PhonePe.
- There are 2 dimensions in the facilities provided by UPI apps they are money related facilities and other facilities.
- Majority of the respondents have no problems with using UPI payment methods.
- Most of the respondents choose UPI payment method because it is Convenient to use.
- Majority of the respondents choose user education as a Security measures to secure one from various kinds of security breaches
- Majority of the respondents highly recommend UPI payment method.
- The usage of UPI services is predominant among male users

- The usage of UPI services is predominant among the customers who belong to the age group of 18 to 36 years of age

### 11. SUGGESTIONS:

- UPI payments are a convenient mode of payments which are hassle free and it can be adopted by for easy payments
- User education can be given in schools, colleges and educational institutions
- Awareness about the method can be created by Banks
- Security features can be increased to attract more customers

### 12. CONCLUSION

The study is made in an attempt to understand the customers perception towards unified payment systems, the pros and cons of using UPI payment method and the level of satisfaction towards the various facilities available with this kind of payment method, from the analysis it is evident that customers have a positive opinion towards using UPI payment method since it is convenient to use customers feel that with user education the problem of security breaches can be reduced also there is a significant relationship between gender of the respondents and age of the respondents with the usage of UPI services, men and youngsters have more tendency to use UPI payment services.

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