# A study on consumer behaviour towards UPI (Unified Payment Interface) payment application based in Nilgiris District

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## ABSTRACT

*It is imperative in the current period that digital payment is one important area where all the consumers and customers should be aware. The reasons are enormous like digital India and mechanization of e-documentation. Nowadays the physical payment mode becomes critical due to various reasons like time and safety. This enabled e-payment methods like internet banking and this again made simpler with android mobile phones. Keeping this concept, the research work framed based on the consumer behavior towards UPI (Unified payments interface). The objective of this study is to know the Consumer awareness, Consumer Perception, and Consumer Satisfaction. The research design used in this study is descriptive research design, with the primary data collection method along with a structured questionnaire which constitutes 105 respondents and the statistical techniques used are chi-square, ANOVA analysis and Multiple Regression. On UPI payment application, the study was restricted only to the village Erumadu, Nilgiris district.*

*Keywords*— *UPI, Mobile phone, digital payment mode*

## 1. NEED FOR THE STUDY

Due to various reasons the online payments have become an important kind of transaction in trade. So, it is imperative that to find the various sources of online sources towards money transaction. By this study we are trying to find out what are the various modes of online payment terms related to UPI.

This study is to analyze the awareness and satisfaction level of the customers in UPI and the security and privacy concerns influencing customers in adoption of UPI. The study analyzes the consumer perception towards UPI. It highlights that the differences in risk perceptions between bank customers using UPI and those not using. It shows that risk perceptions in terms of financial, psychological and safety risks among customer using UPI payments.

## 2. OBJECTIVES OF THE STUDY

- To study about the level of consumer awareness towards UPI payment application.
- To study about the factors that affects the customer perception towards UPI.
- To find out the major problems faced by the customers while using UPI.

## 3. RESEARCH METHODOLOGY

Research methodology is the specific procedures or techniques used to identify, select, process, and analyze information about a topic. The study adopted descriptive type of research design approach for the analysis on consumer behaviour towards UPI payments applications. The population taken for the study was taken in the place Erumedu near Nilgiris district. The data collection method used in the study was primary data which was collected through structured questionnaire.The sampling technique adapted for the study was simple random sampling and the sample size of the study was 105 respondents.

## 4. REVIEW OF LITERATURE

**Shivani Maheswari 2019,** in the study titled "UPI (Unified Payments Interface) - The futuristic Payment Method" discusses the architecture of UPI and states the month wise income features. From the study it is found that 105 million income till Nov 17, as reported by National Corporation of India (NPCI). It is concluded from the study that UPI payment is not only creating peer to peer transactions but also peer to merchant transactions.

**Radhika Basavaraj Kakade1, Prof. Nupur A. Veshne, 2019**, In their study reported that the UPI has made digital transaction for individuals as easy as sending text messages. Service is available 24X7, not like RTGS or NEFT which don't work on holidays or during non-banking hours. This will bring enormous efficiency in the system and help India become a truly cashless economy.

In the study of **(Dr.Virshree Tungare 2018),** "A Study on Customer Insight Towards UPI (Unified Payment Interface) - An Advancement of Mobile Payment System" states that cashless transaction has become important component after the demonetization. The researcher conducted a study in Indore about the UPI payments and related E-payments modes. The findings of the study states that most of the respondents find UPI payments are convenient way of using and it provides various rewards and incentives. The study concluded that it is enhance with the help of smart phones.

**Atul Gupta 2018**, in his study titled "UPI- Redefining Digital Payments - A Critical Review**"** states the statistical data about the usage of UPI mobile interfaces. The data was extracted from the government websites like RBI and NPCI. This article discussed the various challenges and opportunities of UPI.

**Suma Valley and Hema Divya, 2018**, in their study on consumer adoption of digital payments in India had indicates that the deployment of technology for digital payments have improved the performance of banking sector and able to achieve the motive cash less country. The study gives emphasis to the percentage of awareness on maximum utilization of technology. Banks should take effective measures in creating awareness towards the effective usage of technology and security.

**Shamsher singh & Ravish Rana (2017),** In their study reported that adoption of digital payment is influenced by the education level of the customer. If a person has studied beyond matriculation and internet savvy, he or she will be inclined to use the digital payment mode. It was also found that in the areas/region where education level is high such as Delhi NCR and other metropolitan area, the possibility of acceptance of digital payment is much higher. The growth of users of Smartphone and internet penetration in such area also facilitated the adoption of digital payment.

**Demographic variables**

| AGE | | |
|---|---|---|
| 20-25 Years | 36 | 34.2 |
| 25-30 Years | 38 | 36.1 |
| 30-35 Years | 16 | 15.2 |
| 35-40 Years | 10 | 9.5 |
| 45 Years above | 5 | 4.7 |
| Total | 105 | 100 |
| **GENDER** | | |
| Male | 56 | 53.3 |
| Female | 49 | 46.6 |
| Total | 105 | 100 |
| **EDUCATION** | | |
| Secondary | 3 | 2.8 |
| Higher secondary | 2 | 1.9 |
| Under graduate | 40 | 38 |
| Post graduate | 27 | 25.7 |
| Professional | 33 | 31.4 |
| Total | 105 | 100 |
| **ANNUAL INCOME** | | |
| up to Rs.1, 00,000 | 13 | 12.3 |
| Rs.1, 00,000- Rs.2, 00,000 | 9 | 8.5 |
| Rs. 2, 00,000 - Rs.4, 00,000 | 46 | 43.8 |
| Rs. 4, 00,000 - Rs. 5, 00,000 | 28 | 26.6 |
| Above Rs. 5,00,000 | 9 | 8.5 |
| Total | 105 | 100 |
| **OCCUPATION** | | |
| Govt. Employee | 9 | 8.5 |
| Private Employee | 55 | 52.3 |
| Self Employed | 22 | 20.9 |
| Student | 17 | 16.1 |
| Others | 2 | 1.9 |
| Total | 105 | 100 |

Source: *Primary* data

With regard to the demographic variables age wise the majority number is in 25-30 years with the percentage of 36, gender wise the majority is male with the percentage of 53, education wise the majority falls in professional kind of education, annual income goes with the majority of 2 lakhs to 4 lakhs and in occupation the private employees falls in the majority percentage of 52.

**Awareness: Distribution of the respondents based on UPI payment applications**

| S. No | Awareness | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | F | P | F | P | F | P | F | P | F | P | |
| 1 | News papers | 3 | 2.9 | 9 | 8.6 | 35 | 33.3 | 37 | 35.2 | 21 | 20.0 | 3.6 |
| 2 | Advertisements | 4 | 3.8 | 21 | 20.0 | 30 | 28.6 | 36 | 34.3 | 14 | 13.3 | 3.3 |
| 3 | Social medias | 23 | 21.9 | 18 | 17.1 | 24 | 22.9 | 31 | 29.5 | 9 | 8.6 | 2.8 |
| 4 | Family and friends | 29 | 27.6 | 54 | 51.4 | 20 | 19.0 | 1 | 1.0 | 1 | 1.0 | 1.9 |
| 5 | Government | 14 | 13.3 | 27 | 25.7 | 48 | 45.7 | 8 | 7.6 | 8 | 7.6 | 2.7 |

**Variables considered for the study**

| S. No | Particulars | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | F | P | F | P | F | P | F | P | F | P |
| 1 | Denomination of currency | 10 | 9.5 | 51 | 48.5 | 38 | 36.1 | 5 | 4.7 | 1 | 0.9 |
| 2 | Manual banking and online banking | 5 | 4.7 | 23 | 21.9 | 39 | 37.1 | 32 | 30.4 | 6 | 5.7 |
| 3 | Growth of UPI mobile payment | 23 | 21.9 | 59 | 56.1 | 21 | 20 | 1 | 0.9 | 1 | 0.9 |
| 4 | Debit and credit card preference | 4 | 3.8 | 4 | 3.8 | 4 | 3.8 | 4 | 3.8 | 4 | 3.8 |
| 5 | Convenience in usage | 35 | 33.3 | 62 | 59.0 | 6 | 5.7 | 1 | 1.0 | 1 | 1.0 |
| 6 | Secured transactions | 25 | 23.8 | 59 | 56.2 | 18 | 17.1 | 1 | 1.0 | 2 | 1.9 |
| 7 | Time Saving through UPI payment mode | 31 | 29.5 | 49 | 46.7 | 23 | 21.9 | 1 | 1.0 | 1 | 1.0 |
| 8 | Price of Using digital payment mode (service charges etc.) | 22 | 21.0 | 50 | 47.6 | 28 | 26.7 | 4 | 3.8 | 1 | 1.0 |
| 9 | Acceptance Wallet/UPI payment mode | 27 | 25.7 | 46 | 43.8 | 27 | 25.7 | 2 | 1.9 | 3 | 2.9 |
| 10 | Helps in decision making | 8 | 7.6 | 8 | 7.6 | 8 | 7.6 | 8 | 7.6 | 0 | 0 |
| 11 | Comparatively easy than the traditional methods | 11 | 10.4 | 11 | 10.4 | 11 | 10.4 | 11 | 10.4 | 0 | 0 |
| 12 | Payment in delay in UPI Apps | 13 | 12.3 | 13 | 12.3 | 13 | 12.3 | 13 | 12.3 | 0 | 0 |

## 5. CONSUMER AWARENESS

Null hypothesis $h_0$: There is no significant difference in UPI payment application awareness among different age group of respondents.

Alternative hypothesis $h_1$: There is significant difference between UPI payment application awareness among different age group of respondents.

**Age* Consumer awareness**

**ANOVA**

| Particulars | Anova table | Sum of Squares | Df | Mean Square | F | Sig. | Accepted / Rejected |
|---|---|---|---|---|---|---|---|
| Newspaper | Between Groups | 14.927 | 4 | 3.732 | 4.238 | .003 | |
| | Within Groups | 88.063 | 100 | .881 | | | Rejected |
| | Total | 102.990 | 104 | | | | |
| Advertisement | Between Groups | 33.898 | 4 | 8.475 | 10.157 | .000 | |
| | Within Groups | 83.435 | 100 | .834 | | | Rejected |
| | Total | 117.333 | 104 | | | | |
| Social media | Between Groups | 47.558 | 4 | 11.889 | 9.340 | .000 | |
| | Within Groups | 127.299 | 100 | 1.273 | | | Rejected |
| | Total | 174.857 | 104 | | | | |
| Friends and family | Between Groups | .918 | 4 | .230 | .377 | .825 | |
| | Within Groups | 60.929 | 100 | .609 | | | Accepted |
| | Total | 61.848 | 104 | | | | |
| Government | Between Groups | 19.539 | 4 | 4.885 | 5.180 | .001 | |
| | Within Groups | 94.308 | 100 | .943 | | | Rejected |
| | Total | 113.848 | 104 | | | | |

**Interpretation:**
- **Newspaper**: P value is 0.003 which is lesser than 0.05. Hence null hypothesis is rejected. There is significant difference in the Customer awareness about UPI payment application through newspaper among age based respondents.
- **Advertisement:** P value is 0.000 which is lesser than 0.05. Hence null hypothesis is rejected. There is significant difference in the Customer awareness about UPI payment application through Advertisement among age based respondents.

- **Social media:** P value is 0.000 which is lesser than 0.05. Hence null hypothesis is rejected. There is significant difference in the Customer awareness about UPI payment application through Social media among age based respondents.
- **Friends and family:** P value is 0.825 which is greater than 0.05. Hence null hypothesis is accepted. There is no significant difference in the Customer awareness about UPI payment application through Family and friends among age based respondents.
- **Government:** P value is 0.001 which is lesser than 0.05. Hence null hypothesis is rejected. There is significant difference in the Customer awareness about UPI payment application through Government among age based respondents.

## 6. CUSTOMER PERCEPTION

Null hypothesis $h_0$: There is no significant difference in UPI payment application awareness among different gender group of respondents

Alternative hypothesis $h_1$: There is significant difference between UPI payment application awareness among different gender group of respondents.

**Gender* Customer perception**

**ANOVA**

| Particulars | Anova table | Sum of Squares | Df | Mean Square | F | Sig. | Accepted / Rejected |
|---|---|---|---|---|---|---|---|
| Convenience | Between Groups | .047 | 1 | .047 | .101 | .752 | Accepted |
| | Within Groups | 48.467 | 103 | .471 | | | |
| | Total | 48.514 | 104 | | | | |
| Time Saving | Between Groups | .241 | 1 | .241 | .372 | .543 | Accepted |
| | Within Groups | 66.673 | 103 | .647 | | | |
| | Total | 66.914 | 104 | | | | |
| Price | Between Groups | .254 | 1 | .254 | .363 | .548 | Accepted |
| | Within Groups | 71.994 | 103 | .699 | | | |
| | Total | 72.248 | 104 | | | | |
| Secured | Between Groups | .086 | 1 | .086 | .137 | .712 | Accepted |
| | Within Groups | 64.904 | 103 | .630 | | | |
| | Total | 64.990 | 104 | | | | |
| Acceptance | Between Groups | .007 | 1 | .007 | .009 | .926 | Accepted |
| | Within Groups | 87.383 | 103 | .848 | | | |
| | Total | 87.390 | 104 | | | | |

**Interpretation:**
- **Convenience:** P value is 0.752 which is greater than 0.05. Hence null hypothesis is accepted. There is no significant difference in Customer perception on Convenience usage is that influence customer to use online payment application on gender based respondent.
- **Time Saving:** P value is 0.825 which is greater than 0.05. Hence null hypothesis is accepted. There is no significant difference in Customer perception on Time saving is that influence customer to use online payment application on gender based respondent.
- **Secured transactions:** P value is 0.712which is greater than 0.05. Hence null hypothesis is accepted. There is no significant difference in Customer perception on secured transaction is that influence customer to use online payment application on gender-based respondent.
- **Price of Using digital payment mode (service charges etc.):** P value is 0.548 which is greater than 0.05. Hence null hypothesis is accepted. There is no significant difference in Customer perception on price of using digital payment mode (service charges) is that influence customer to use online payment application on gender based respondent.
- **Acceptance Wallet/UPI payment mode:** P value is 0.926 which is greater than 0.05. Hence null hypothesis is accepted. There is no significant difference in Customer perception on acceptance of wallet/UPI payment mode is that influence customer to use online payment application on gender based respondent.

**Chi-Square: Use of UPI (Unified payments interface) payment applications**

Null hypothesis $h_{01}$: There is no significance realationship between age and use of UPI payment application.

Alternative hypothesis $h_1$: There is a significance realationship between age and use of UPI payment application.

**Age * Use of UPI (Unified payments interface) payment application**

Count

| | | UsedUPIapp | | Total |
|---|---|---|---|---|
| | | Yes | No | |
| Age | 20-25 years | 35 | 1 | 36 |
| | 25-30 years | 38 | 0 | 38 |
| | 30-35 years | 16 | 0 | 16 |
| | 35-40years | 10 | 0 | 10 |
| | 45 years above | 5 | 0 | 5 |
| Total | | 104 | 1 | 105 |

**Chi-Square Tests**

|  | Value | Df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 1.935(a) | 4 | .748 |
| Likelihood Ratio | 2.159 | 4 | .706 |
| Linear-by-Linear Association | 1.017 | 1 | .313 |
| N of Valid Cases | 105 |  |  |

**Interpretation:**
P value = .748
P value is greater than .05, hence null hypothesis is accepted.. Hence there is no significant relationship between the age and use of UPI payment application

**Distribution of the respondents based on Using online banking for the only purpose of getting the rewards**
Null hypothesis $h_0$:There is no significant association between the customers Using online banking for the only purpose of getting the rewards and age
Alternative hypothesis $h_1$: There is a significant association between the customers Using online banking for the only purpose of getting the rewards and age

**Table 4.6.5.1: Age * Using online banking for the only purpose of getting the rewards**
Count

|  |  | Purpose | | Total |
|---|---|---|---|---|
|  |  | Yes | No |  |
| Age | 20- 25 Years | 7 | 29 | 36 |
|  | 25- 30 Years | 3 | 35 | 38 |
|  | 30- 35 Years | 4 | 12 | 16 |
|  | 35- 40 Years | 3 | 7 | 10 |
|  | 45 Years above | 2 | 3 | 5 |
| Total |  | 19 | 86 | 105 |

**Chi-Square Test**

|  | Value | Df | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 5.802(a) | 4 | .214 |
| Likelihood Ratio | 5.895 | 4 | .207 |
| Linear-by-Linear Association | 1.958 | 1 | .162 |
| N of Valid Cases | 105 |  |  |

**Interpretation:**
P value = .2.14
P value is greater than .05, hence null hypothesis is accepted.. Hence there is no significant relationship between the age and using online banking for the only purpose of getting the rewards.

**7. FINDINGS AND SUGGESTION**
- Majority (56.1%) of the respondents agree that the Mobile payments are growing and are expected to continue
- Majority (57.1%) of the respondents neither agrees nor disagree that the Credit cards and debit cards are most preferred payment.
- Majority(81.9 %) of the respondents are not using online banking for the only purpose of getting the rewards
- Majority (96.1 %) of the respondents agree that the UPI payments can offer you a wider range of banking services and Payment options
- Most (38%) of the respondents use transactions through internet once in a day

**7.1 Suggestion**
- As trends and consumer preferences are constantly changing, the Consumer behavior towards UPI (Unified payments interface) is improving. based on the day to day life.
- Mostly the UPI users are under the age group of 25-30 years and also most of the respondents are under graduates, and majority are private employees.
- The important aspects which affect online payment application are Non- credit of money and Payment delay due to network issues and some other issues related to bank infrastructure and due to the Smartphone.
- The security is the biggest concern among the consumers and can be considered as a key factor for the adoption the UPI payments

- Majority of the people use UPI payment application for their own convenience and preference, consumer believe that the Using of the UPI payments improves the quality of decision making of buying product, and UPI payments can offer customers a wider range of banking services and Payment options.

## 8. CONCLUSION

Making payment is all about convenience, security, and speed. India's payment system evolved from the barter system to cash to card to digital payment mode. The security is the biggest concern among the consumers and can be considered as a key factor for the adoption of the UPI payments. India is a cash dominant society, even though there is a rapid increase in the using digital payment modes, there is still a lack of awareness among people concerning security, data privacy, etc. which is leading to them believing that making payments as card or cash is much better than using UPI application. Unified Payment Interface is considered as the biggest competitor for UPI payments. The customer is the king and they are looking for a seamless and convenient way of payments through internet and UPI is the best option for the customers for machining transactions.

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