

# **ANALYSIS OF CONSUMERS' KNOWLEDGE AND USE OF ONLINE AND MOBILE PAYMENT METHODS IN THE RETAIL SECTOR**

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## **ABSTRACT**

A digital payment may be described as an electronic payment, which can be stated to be the transfer of value from one payment account to another utilizing a digital device such as a mobile phone, POS computers, or computers, as well as a digital channel of communication such as mobile wireless data and SWIFT. It is possible to claim this with the addition of payments made using mobile money, bank transfers, and payments cards such as credit, debit, and prepaid cards. The nation as a whole has seen a tremendous rise in the adoption of digital payment methods over the last several decades. Bank transfers, mobile money, and other forms of digital payment are some of the options available to residents of the nation. The government of India has developed a number of noteworthy initiatives with the goal of fostering and promoting the use of digital payment methods across the nation. Digital payment systems are often straightforward to implement, user-friendly, and give a higher level of efficiency by assuring clients that they may make payments at any time and from any location. After the development of technology for digital payments, the number of digital payments has increased. Following the demonetization of currency, individuals have also begun to embrace digital payment methods. In the previous research, an effort was made to investigate how different kinds of digital payments have progressed over time and how the introduction of Covid-19 has influenced the digital payment system in India. Evaluating the retail payment patterns and utilization of digital payments, as well as the financial success of the latter, is the primary objective of the current research. The data that were gathered via the use of the questionnaire were subjected to statistical analysis utilizing various approaches. In order to get some understanding about digital payment methods, we decided to conduct a poll. It has been discovered that 63.2% of the public has a larger knowledge of digital payment, and it has also been noted that commercials played a key influence, with 57% of consumers being made aware of digital payment via them. The scope of the survey was expanded after

it was shown that 59.6% of consumers are getting money for their ongoing bills. As a result, we may reach the following conclusion: since individuals were worried about their health and were afraid of dealing with cash transactions, they switched to this mode, which led to a fast increase in the use of digital payment methods.

**Keywords:** Digital Payment System, Cash Transactions, POS, Demonetization, Covid-19.

## I. INTRODUCTION

The rise of the digital payments era has raised and taken its place where it is being very progressive amongst citizens. We have reached the stage where it is almost impossible to fathom a world in which digital payments didn't exist. We are in an era where the digital payments almost received its essential and importance along with physical cash transactions. The digital payments have strengthen its iron grip on the financial transactions, which resulted us with accurate speed, safety and secure certainly. The digital payments technology has proved greater efficiency in financial management and this technology has helped out the users very well. RBI (Reserve Bank of India) has always been the primary enabler of digital payments in India. Investment in knowledge and technology for payment systems involving large scale expenditure after great launches of technologies in the world and after conceptualisation to proper execution. India has followed the bank-led model with banks and other financial institutions to regulate the payments system operations, as it was felt that being adequately regulated, banks were better placed to take the payment systems forward. We can observe that digital payments enhance the world with efficiency and technology integration would lead to development of the financial world and make citizens comfortable to have greater transparency and accountability within the society. The digitalization of the economy can be achieved because of the easy access, swift absorption/adoption of new technology and innovation, quality of infrastructure etc. The Government and Finance ministry along with banking sectors have left with no stone unturned to make our economy with upgraded transparency with digitalization in order to eliminate evils like corruption and other stealing methods of currency. There are certain crucial elements utilized and being in progress to ensure safety amongst the bank accounts of the customers by using different PINs, uplifting the infrastructure and innovation. The elements which are operational in nature under flagship digitalization would certainly lead towards safety, security and quick payments would help in building confidence in the payment systems. The dual model followed in India combined the trust that the banks offered with greater innovative methods of non-banks to upscale digital payments and make in utilization. We can state that E-Payments allow users to make payments online at any time and from anywhere around the world.

## II. LITERATURE REVIEW

**Ghosh, (2021)** has verified and reviewed all the necessary papers and noted that the digital payment is far more convenient and time-saving as compared to traditional means of paper currency. Digital payments in India are being offered to promote cashless transactions and to minimize the use of cash to ascertain extent in the economy. It is flagship program of the Indian Government where it strives to have Digital India and to transform the country into knowledge based society and to ensure a great accountability, transparency and efficiency. It is emphasized that digital payments can be done round the clock by any individual with the help of internet. On a whole the research is clearly claiming that people within the country are thoroughly happy and accepting the digital payment technology as it is a faster mode of payment that offers rewards and other cash backs. The research talk has also generated convincing reports asserting that how Government has taken various initiatives to make Digital India post demonetization. In 2020, There's a global pandemic has been encountered named Covid-19 a deadly infectious disease caused by SARS-CoV-2 virus. It is the virus which is very dangerous and made us to fall sick soon after infection.

**Dr. Swati Kulkarni, Dr. Aparna J Varma, (2021)** studied to identify the consumers and their thoughts towards the online payments and safety of these payments. The study also contributes to the understanding of the frequency of digital payments and the factors affecting to the consumers while using digital payment modes that may affect consumer perception. Many traditional bound attitude personalities usually tend to hesitate to use digital payments via using various payment apps. There are certain old people who are not that much great to use digital payments too. It is found that 43% of the people are still using traditional method of payments and feels that it is better to avoid digital payments to avoid the hindrances and certain confusions. Many uneducated people in the urban and rural areas are also getting into trouble without proper acquaintance of the digital payment technology. There searchers also suggested that the study is very exploratory and the information is bring a great awareness and relies on the literature reviews and secondary information for the findings.

**Ma et al., (2021)** has observed that secondary research such as previously published articles, journals and government published sources, analysed the impact of Covid-19 on the Digital Payments services even in districts and villages. About 37 percent of those surveyed were Gen-Z (ages 18-25 years), 48percent were millennial (ages 26-43 years), with the rest being older. Not only digital payments penetration increased to 89 percent in 2022, but the share of respondents who report using two or more forms of digital payments has grown even more rapidly-51 percent in 2021 to 62 percent. In the year 2020, the share experienced a growth of between 15-20 percent which has further increased to near 20 percent in the current year, which is the financial year 2021. It is being predicted that by the year 2023, the Indian economy will

have 25 percent of its share too. With due to rapid civilization, up gradation of the technology and the banking sectors developments to ensure transparency in the field of the growth in the Indian economy, they found that there was a use of digital payment services by Indian people, such as small enterprises, shops, businessmen and households and it is found everywhere the service and distribution is involved. But the wave of Covid-19 has contributed complete gaining points of using digital payments and rose to usage of digital applications in the economy where it emerged especially in the towns and districts.

### **III. NEED FOR STUDY**

The main objective to undergo with this research is to analyse the impact of digital payments technology especially in Indian economy. It is estimated that India's digital payments industry will grow to more than 300% of its current size by 2025. The growth arc of digital payments is resulting in excellence in terms of usage, the way it delivers with efficient characteristics and also gave out the best outcome and easier outcome to all the users in our economy. The applications such as Google Pay, PhonePe, and Paytm have been encouraging customers to go ahead with digital payments technology and this applications have been so supportive during tough times like pandemic environment in our country for receiving and payments of various bills in order to minimize the social contact. The digital payments is one the finest technologies that are available in our economy where we could witness the businesses and retail chains are also been supportive and encouraging customers to utilise the technology which is available to shop online and pay via digital channels. Thus, we can conclude that digital payments technology will certainly grow additionally and enable all the citizens to avail the opportunity of doing payments with efficient technological applications.

### **IV. GAP OF THE STUDY**

The current study is the new informative analysis, and it is an attempt that is been utilised in order to understand the study deeply and gain great insight to a certain extent. There have been numerous earlier being regulated, none of the studies focussed or concentrated towards how retail digital payment is transforming the era of esteem country called India.

### **V. OBJECTIVES OF THE STUDY**

To study the awareness among the consumers about retail digital payment system.

To study the retail digital payments of the consumers.

To find out the opinion of respondents regarding the various problems of retail digital payment.

### **VI. HYPOTHESIS**

**H<sub>0</sub>:** There is no significant association between Gender and Mobile Payment.

**H<sub>1</sub>:** There is a significant association between Gender and Mobile Payment

**H<sub>0</sub>:** There is no significant association between Gender and Problem faced while doing retail digital payments.

**H<sub>1</sub>:** There is a significant association between Gender and Problem faced while doing retail digital payments.

**H<sub>0</sub>:** There is no significant association between Gender and Major Retail digital payment proportions.

**H<sub>1</sub>:** There is a significant association between Gender and Major Retail digital payment proportions.

## VII. METHODOLOGY OF THE STUDY

To understand the study clearly and precisely, we have undergone with survey where we acquired the data directly from the respondents through a questionnaire. We have collected the data from 136 respondents by using simple random sampling method. This collection is also used to study the consumer's perception about retail digital payment based on the answers we received on questionnaire. The sampling unit for the research was the population using digital payment and the usage which has created the impact in the society.

**Survey Instrument:** The survey was carried out using a self-constructed questionnaire along with certain divisions which is intended to collect the necessary information along with demographic information which are useful to generate essential reports towards the study.

**Statistical Tool:** for data analysis we applied frequency tables, cross tabulation and chi-square test.

## VIII. ANALYSIS AND INTERPRETATION

**Table-1** Gender wise analysis

| Gender | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------|-----------|---------|---------------|--------------------|
| MALE   | 53        | 39      | 39            | 39                 |
| FEMALE | 83        | 61      | 61            | 100                |
| Total  | 136       | 100     | 100           |                    |

In the above table, it is found that male citizens does 53 frequency and female citizen's does higher frequency i.e., 83. It is immensely great to realize that 61 percent is being recorded under the comparative survey between male and female citizens of the country respectively.

**Table-2** Age Group of Respondents

| Age   | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------|---------|---------------|--------------------|
| 18-25 | 101       | 74.3    | 74.3          | 74.3               |
| 25-35 | 10        | 7.4     | 7.4           | 81.6               |
| 35-45 | 16        | 11.8    | 11.8          | 93.4               |

|          |     |     |     |      |
|----------|-----|-----|-----|------|
| 45-60    | 8   | 5.9 | 5.9 | 99.3 |
| Above 60 | 1   | 0.7 | 0.7 | 100  |
| Total    | 136 | 100 | 100 |      |

The above table depicts the frequency based on the respective ages. The highest frequency is **101** is being recorded under 18-25 of age, followed by 10 under 25-35 age, 16 that is been found under age 35-45, followed 45 to above 60 has received 8 and 1 from the respondents.

**Table-3** Educational Qualification

| <b>Educational Qualification</b> | <b>Frequency</b> | <b>Percent</b> | <b>Valid Percent</b> | <b>Cumulative Percent</b> |
|----------------------------------|------------------|----------------|----------------------|---------------------------|
| Higher Secondary                 | 18               | 13.2           | 13.2                 | 13.2                      |
| Graduate                         | 90               | 66.2           | 66.2                 | 79.4                      |
| Post graduate and above          | 28               | 20.6           | 20.6                 | 100                       |
| Total                            | 136              | 100            | 100                  |                           |

The table illustrates the frequency and percentages based on the educational qualifications. It is found that graduate students respondents have received **90** as frequency which is supportive to generate the analysis. Whereas, the higher secondary and post graduate respondents have 18 and 28 as frequencies respectively.

**Table-4** Occupation of the respondents

| <b>Occupation of the respondents</b>      | <b>Frequency</b> | <b>Percent</b> | <b>Valid Percent</b> | <b>Cumulative Percent</b> |
|---|------------------|----------------|----------------------|---------------------------|
| Salaried Employee                         | 28               | 20.6           | 20.6                 | 20.6                      |
| Self-employed/Business owner/Professional | 1                | 0.7            | 0.7                  | 21.3                      |
| Retired Employee                          | 1                | 0.7            | 0.7                  | 22.1                      |
| Student                                   | <b>101</b>       | 74.3           | 74.3                 | 96.3                      |
| Home maker                                | 2                | 1.5            | 1.5                  | 97.8                      |
| Others                                    | 3                | 2.2            | 2.2                  | 100                       |
| Total                                     | 136              | 100            | 100                  |                           |

In the above table, it is the analysis which is demonstrating the occupation of the respondents with relevant frequencies and percentages. The highest frequency that is found is with student with the record **101** which is satisfying for a deep case study. The salaried employees has received frequency of 28 and self-employed professionals and home makers have received frequency of 1, 2 respectively.

### **Cross-Tabulation between two independent attributes**

**Table-5** Association between Gender and Mobile Payment

| Gender | Mobile Payment |      |          |      | Total |
|--------|----------------|------|----------|------|-------|
|        | Excellent      | Good | Moderate | Poor |       |
| Count  | <b>32</b>      | 19   | 1        | 1    | 53    |

|                         |                |                    |      |                       |     |     |
|-------------------------|----------------|--------------------|------|-----------------------|-----|-----|
| MALE                    | Expected Count | 30                 | 18.3 | 3.1                   | 1.6 | 53  |
| FEMALE                  | Count          | 45                 | 28   | 7                     | 3   | 83  |
|                         | Expected Count | 47                 | 28.7 | 4.9                   | 2.4 | 83  |
| total                   | Count          | 77                 | 47   | 8                     | 4   | 136 |
|                         | Expected Count | 77                 | 47   | 8                     | 4   | 136 |
| <b>Chi-Square Tests</b> |                |                    |      |                       |     |     |
|                         |                | Value              | df   | Asymp. Sig. (2-sided) |     |     |
| Pearson Chi-Square      |                | 2.944 <sup>a</sup> | 3    | 0.4                   |     |     |

The above table describes about association between gender and mobile payments certainly. From the total sample of 136 respondents, 45 female respondents opined about digital payments are comfortable in using mobile payments and 32 male respondents opined about digital payments into excellent category. Chi- square statistics were used to examine association between categorical variable (Gender and Mobile Payment). There is an insignificant association at 5% significant level between Gender and Mobile Payment of respondents ( $X^2 = 2.944$ ,  $df = 3$ ,  $p = 0.4$ ). Hence  $H_1$  was not supported. In analysis the p-value of 0.4 is much higher than the commonly accepted level of 0.05. So we cannot reject the ( $H_0$ ) null hypothesis.

**Table-6** Association between Gender and Problem faced while doing retail digital payments

| Problem faced while doing retail digital payments                               | Gender |                |        |                |       |                |
|---|--------|----------------|--------|----------------|-------|----------------|
|   | MALE   |                | FEMALE |                | TOTAL |                |
|   | Count  | Expected Count | Count  | Expected Count | Count | Expected Count |
| Digital transactions take more time / are complex as compared to cash           | 9      | 7              | 9      | 11             | 18    | 18             |
| Digital transactions are costly as compared to cash                             | 2      | 2.3            | 4      | 3.7            | 6     | 6              |
| Less trust in digital transaction (unsafe, risky, decline of transaction, etc.) | 11     | 9.7            | 14     | 15.3           | 25    | 25             |
| I do not have payment products (cards, wallets) or device (mobile, laptop)      | 0      | 2.3            | 6      | 3.7            | 6     | 6              |
| Lack of Point of Sale (PoS) machines / QR codes / internet connectivity         | 5      | 4.3            | 6      | 6.7            | 11    | 11             |
| Uncomfortable/Unfamiliar with digital payments                                  | 2      | 0.8            | 0      | 1.2            | 2     | 2              |
| No major problem faced while doing digital payments                             | 24     | 26.5           | 44     | 41.5           | 68    | 68             |
| Total   | 53     | 53             | 83     | 83             | 136   | 136            |
| <b>Chi-Square Tests</b>   |        |                |        |                |       |                |

|                    | Value              | df | Asymp. Sig. (2-sided) |
|--------------------|--------------------|----|-----------------------|
| Pearson Chi-Square | 8.811 <sup>a</sup> | 6  | 0.184                 |

The above table describes about the association between gender and problem faced while doing retail digital payments. It is very fortunate to observe **24** as clear count to the main questionnaire that is no major problem is being faced while doing digital payments. Chi-square statistics were used to examine association between categorical variable (Gender and Problem faced while doing retail digital payments). There is an insignificant association at 5% significant level between Gender and Problem faced while doing retail digital payments of respondents ( $X^2=8.811$ ,  $df = 6$ ,  $p = 0.184$ ). Hence H1 was not supported. In analysis the p-value of 0.184 is much higher than the commonly accepted level of 0.05. So we cannot reject the (H0) null hypothesis.

**Table-7.** Association between Gender and Major Retail digital payment proportions

| Gender                  |                | Major retail digital payment proportion |         |           |                       | Total |
|-------------------------|----------------|---|---------|-----------|-----------------------|-------|
|                         |                | <50%                                    | 50-70 % | 70-90%    | >90%                  |       |
| MALE                    | Count          | 9                                       | 11      | <b>17</b> | 16                    | 53    |
|                         | Expected Count | 9.7                                     | 10.9    | 16.4      | 16                    | 53    |
| FEMALE                  | Count          | 16                                      | 17      | 25        | <b>25</b>             | 83    |
|                         | Expected Count | 15.3                                    | 17.1    | 25.6      | 25                    | 83    |
| Total                   | Count          | 25                                      | 28      | 42        | 41                    | 136   |
|                         | Expected Count | 25                                      | 28      | 42        | 41                    | 136   |
| <b>Chi-Square Tests</b> |                |   |         |           |                       |       |
|                         |                | Value                                   | Df      |           | Asymp. Sig. (2-sided) |       |
| Pearson Chi-Square      |                | .134 <sup>a</sup>                       | 3       |           | 0.987                 |       |

In the above table, we can see the association between Gender and Major Retail digital payment proportions, we can calculate the necessary percentages for male and female counts in the table above. The number of men received is **17** is for 70-90% of retail digital payment proportion while the number of women got is 25 More than 90% of males and females have obtained the 41 count, which is very appreciative. Chi-square statistics were used to examine association between categorical variable (Gender and Major Retail digital payment proportions). There is an insignificant association at 5% significant level between Gender Major Retail digital payment proportions of respondents ( $X^2=0.134$ ,  $df = 3$ ,  $p = 0.987$ ). Hence H1 was not supported. In analysis the p-value of 0.987 is much higher than the commonly accepted level of 0.05. So we cannot reject the (H0) null hypothesis.

## IX. FINDINGS & SUGGESTIONS



The prior analysis enables us to make the following observation: with 83 replies out of 136, the majority of respondents are female. The previous analysis provides a breakdown of the ages of those who participated in the survey, revealing that the majority of respondents were in the age range of 18 to 25 years old. The majority of respondents had at least a bachelor's degree, as shown by the analysis of the data. Specifically with regard to the correlation between gender and the use of mobile payment systems. Among the entire sample of 136 respondents, 45 female respondents expressed an opinion regarding digital payments, and 45 of those respondents said that they felt comfortable utilizing mobile payments. makes reference to the correlation between the different challenges experienced by men and women while making retail digital payments. It is really lucky to note 24 as a clear count to the primary questioning that there is not a significant issue that is being encountered when carrying out digital payments. With regard to the connection between Gender and Major Retail Digital Payment Proportions, we can see that the number of males received is 17, which is for 70-90% of retail digital payment proportion, but the number of women received is 25, which is for 100% of retail digital payment proportion. The fact that more than 90 percent of both boys and females have achieved the 41 count is very much appreciated.

## **X. CONCLUSION**

According to the in-depth analysis that was performed on the primary data sources. It is possible to achieve an improvement in the assessment of the retail payment habits of persons by putting the following suggestions and ideas into practice. A particular focus will be placed on the individuals' degree of knowledge and usage of digital payment methods. Because a very small proportion of persons over the age of 50 utilize retail digital payment sources, the government need to make an effort to raise awareness of the availability of these options among people of all ages. Because just around twenty percent of people in India are now using retail payment systems, it is the obligation of the Indian government to guarantee that as many people as possible, across all age categories, use these systems. In order to encourage more individuals to utilize digital payment methods, the government must ensure that retail digital payment systems have the greatest possible degree of security. Not only should the number of individuals aged 18 to 35 who use digital payment methods in retail rise, but the number of people of all ages should also see an increase in their use of these methods. The government need to make certain that this takes place.

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