

## The Utilization of Digital Payment Platforms – with special reference to Bangalore

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**Abstract:** After the launch of the ambitious initiative by The Honorable Prime Minister of India, Shri Narendra Modi on the 1<sup>st</sup> of July 2015 – ‘Digital India’ it has created a revolution as a mass movement having altered the way majority of the Indians carried out everyday tasks. The Digital India effort has facilitated the implementation of faceless, cashless and paperless functioning through Tools such as UPI (Unified Payments Interface) that has made a mark in the population due to its User Friendly and Hassle-free concept. For this to be propagated and implemented on a large level the aspects of Digital Infrastructure, Digital Services and Digital Inclusion must be taken due care of to achieve a more digitally empowered nation. The objective of this research paper is to study and comprehend the extent of usage of Digital Payment Platforms or Applications among the population of Bangalore. Primary Data collected from 121 people spread over various sectors of the population. The findings of the study saw the increased usage of Digital Payment Platforms for daily use from College students to majorly employed adults. To further expand the salient features of the Digital India Movement the government needs to take necessary actions to make the usage of the Payment Platforms more accessible by facilitating good Internet and Network facilities in the areas where the region lacks the same.

**Keywords:** UPI, Digital Payment Platforms, Digital India, Electronic Payment

### 1. Introduction

With the Digital Payment taking over the Commercial World of the Indian Nation both on the Seller and the Customer’s point of view making Digital Payments and Receipt a process that takes mere seconds and eases the whole business transaction. With India having become the most populous country of the Globe, it enjoys the advantage of a Young Population, having half of its population below the age of 25, therefore providing both a workforce as well as a market.

The Unified Payments Interface (UPI) has clubbed Bank Accounts into a Mobile Application having banking features from Transfer facilities along with Bill payments and Mobile Recharge. It has made these everyday transactions flexible and easy and has thus become a profound mode of Financial Transactions for the citizens. The efforts of small-time domestic shopkeepers to embrace digital payment platforms and its usage has been an indirect promotion activity to extend its usage among the population.

The Digital India Movement has had its share of success to have made a mark in the city of Bangalore, however the extent of its usage and awareness among the populations is one to be keenly looked on, to make the policy more of an extensive and inclusive success. The measures that the Government needs to take in order to make the Usage of

Financial Payment Platforms more popular and user friendly, various factors that influence the same is studied and analyzed to ensure Digital Inclusion and Digital Services in the future, which this paper focuses on.

Primary Data Collection method of Questionnaire/ Survey sent online via Messaging Applications to various sectors of the Southern Indian Population of which 121 responses from the region of Bangalore were received using Purposive Sampling.

## 2. Literature Review

Dinesh M. Kolte and Dr. Veena R. Humbe (2019) in the Paper “Study of UPI/BHIM Payment System in India” conclude that the UPI/BHIM mode of payments are extensively used by the Students. Suggestions are given for Government to promote the native made BHIM App to compete with the popularity of the 3<sup>rd</sup> party apps.

Sudiksha Shree, Bhanu Pratap, Rajas Saroy and Sarat Dhal (2021) in the Paper “Digital payments and consumer experience in India : a survey based empirical study”, the survey which was conducted during the Covid-19 Pandemic, saw individuals willing to discount online fraud experience in the face of higher convenience offered by digital payment modes.

Mahesh A and Ganesh Bhat in their Research Case Study “Digital Payment Service in India – A Case Study of Unified Payment Interface” conclude that UPI offers superior advantages through services using instant payment using QR code, payment through phone numbers and facilitating payment of bills as well. Further suggesting the need for promotion of creation of Bank Accounts in the Unbanked Rural Population make e-payment platforms more inclusive.

Rashi Singhal in her paper “Impact and Importance of Digital Payment in India” concludes that the gradual transition period that India is in, where the changes occurring requires more amount of time which can't be stated at present when innovation and advanced installment market are in the Prosperity Phase.

## 3. Objectives of the Study

- i) To study the Impact of Demographic Factor on Digital Payments
- ii) To know the general awareness, convenience, preference of usage and Digital Payment Platform Applications
- iii) To study the Impact of Digital Payments on Spending Behavior
- iv) To study the Advantages and Disadvantages of Digital Payments

#### 4. Observations of the Study

##### ➤ Impact of Demographic Factors on Digital Payments

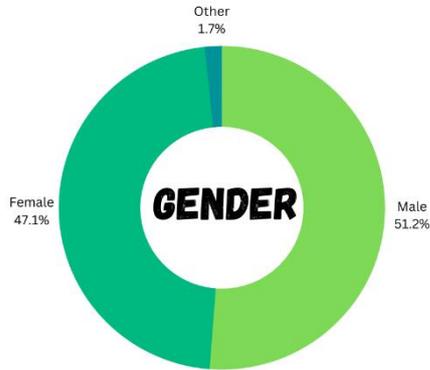


Chart 1: Gender Ratio

The study saw the responses across genders.

From the Chart 1, it is inferred that 51.2% of Male, 47.1% Female and 1.7% Other individuals participated in the study using Smart Phones.

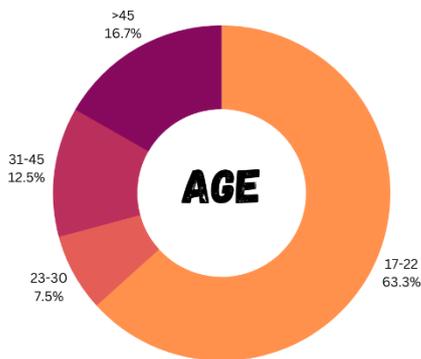


Chart 2: Age Groups

The study saw the diverse age difference among the respondents classified into 4 age groups as per Chart 2 from age 17-22.

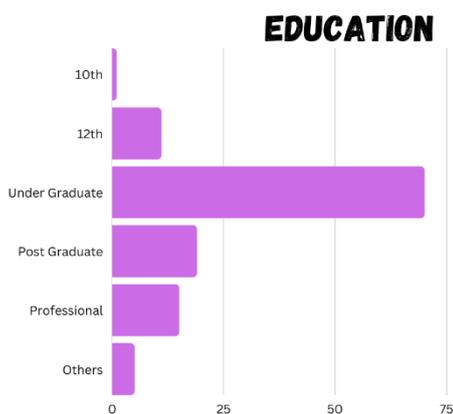
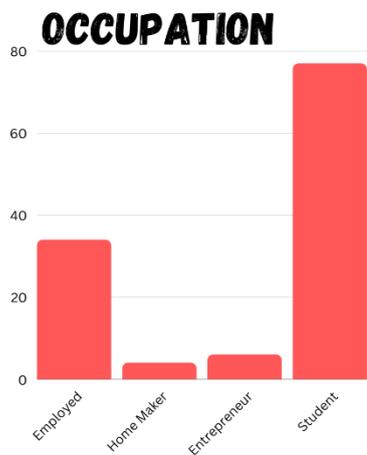


Chart 3: Educational Background

Refer to Chart 3.

The study saw majority participation from the Under Graduate Section of the population (72 respondents) besides participation from individuals in their 10<sup>th</sup> Grade, 12<sup>th</sup> Grade, Post Graduation along with Professionals and Others.



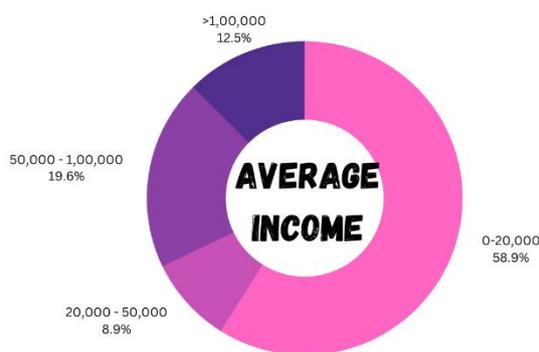
**Chart 4:** Occupation

According to Chart 4, the survey was Taken up by Students along with Employed, Entrepreneurs and Home Maker individuals. Majority respondents of the sample size were Students (78)



**Chart 5:** Locality

According to Chart 5, the sample size taken, had participants from Rural, Urban and Metropolitan Cities, with Urban respondents being the majority. (47.9%)



**Chart 6:** Average Income

The average income of participants as shown in Chart 6 was found to be under the classifications from 0 to greater than Rs. 1,00,000. The average income of Respondents were Rs. 0 – 20,000.

- General Awareness, Convenience, Preference of Usage and Digital Payment Platform Applications



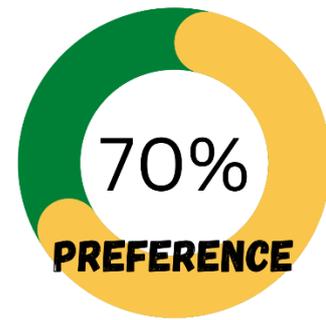
**Chart 7:** Awareness

From the data collected from the Sample Size, 95% were found to be aware of the Digital Payment Platforms that exist in the market today.



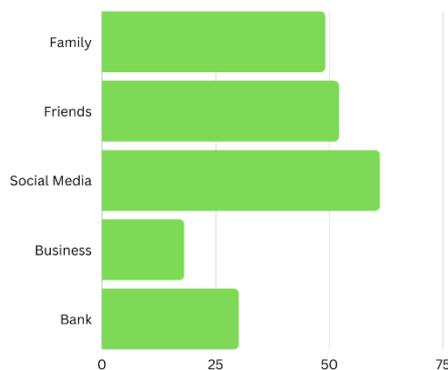
**Chart 8:** Convenience

97% of the Sample Size felt that the Digital Payment Platforms to be more user friendly, easy and highly convenient.



**Chart 9:** Preference

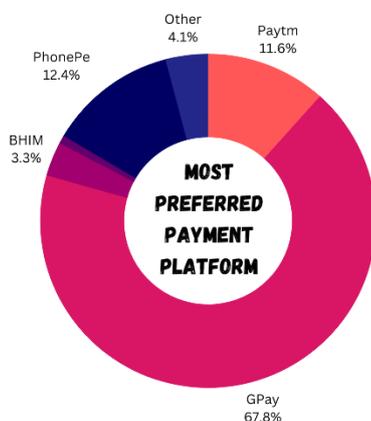
The study saw 70% of the Sample Size prefer the Digital Payment through these platforms over going to the bank physically.



**MODE OF AWARENESS**

**Chart 10:** Mode of Awareness

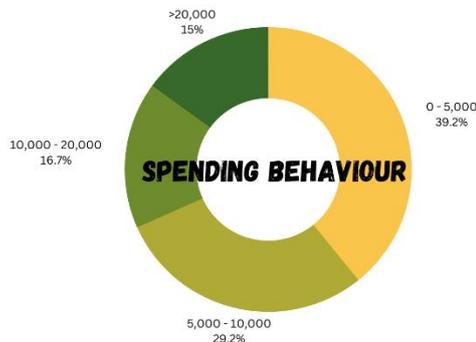
According to Chart 9, the participants of the survey revealed the mode through they came to know about the Digital payment Methods they use in their day to day lives. Social Media seems to be the main source of awareness.



**Chart 11:** Preferred Platforms

According to Chart 11, the most Preferred payment platform used is GPay/ Google Pay Application by 67.8% of the Sample size.

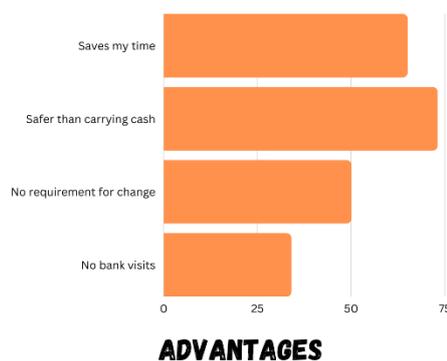
### ➤ Impact of Digital Payments on Spending Behaviour



It is observed from Chart 12 that using the Digital Payment Platforms the respondents spend around 0 – Rs. 5,000 per month.

Chart 12: Spending Behaviour

### ➤ Advantages and Disadvantages of Digital Payments



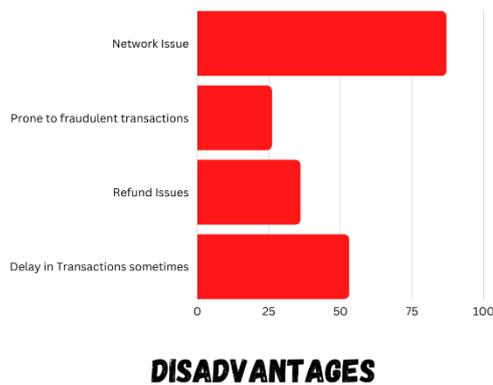
According to Chart 13, the respondents found that the Digital Payment Platforms give them a 'Safe than Carrying cash' benefit among the other advantages given to them to choose from.

Chart 13: Advantages

Advantages of Digital Payment Platforms after Analysis of responses:

- Digital Payment Platforms have made the handling of Cash extremely convenient and efficient for individuals belonging to the student, employed and entrepreneur categories.
- Easy and Fast payment and receipt facility serves as a boon to the everyday activities and has reduced the delay that used to exist in Digital Transactions.
- Digital payment platforms are simplified in their procedure from the previous complex procedure for Payments and Receipts.
- The Digital Payment Platforms offer a variety of payment choices facilitating payments through QR Code, Phone Number, UPI ID, etc., making it user friendly in nature.

- Digital Payment platforms has promoted and facilitated the Cashless approach among the population that is technically literate which has reduced the rate of theft and concerns for travel.



According to Chart 14, the respondents that the usage Digital Payment Platforms is often hindered by Network issues among other limitations given to them to choose from.

**Chart 14: Disadvantages**

Disadvantages of Digital Payment Platforms after Analysis of responses:

- Internet Connectivity which is not available at the required extent, spread across the region of Bangalore, makes the usage of Digital Payment Platforms difficult and challenging.
- The daily limit for the number of transactions of the Digital Payment Platforms is a limitation of inconvenience for the user that is majorly dependent on the applications.
- Complete awareness of the features and facilities in the Digital Payment Applications are not necessarily found in all the users.
- Digital Payment Platforms have in a way made easy Impulse Buying which has altered the Spending Behavior of individuals to a negative extent as well.
- Frequent usage leads to saving of confidential data and passwords in the Payment Applications making it vulnerable for data breach.

## 5. Limitations of the Study

- i) The study was dominated respondents being belonging to the the age group of 17-22, therefore the opinions of the Older age group could not be accurately ascertained.
- ii) Geographic data from the Bangalore region, were selected through Purposive Sampling for the study.
- iii) Only UPI facilitating Digital Payment Platforms was considered for this paper.

## 6. Use of Statistical Tools and Findings of the Study

- Statistical Tool :**Mode**

The mode is the value that appears most often in a set of data. The mode of a discrete probability distribution is the value  $x$  at which its probability mass function takes its maximum value. In other words, it is the value that is most likely to be sampled.

Medium of Awareness	Frequency
Family	49
Friends	52
Social Media	61
Business	18
Bank	30

**Table 1:** Medium of Awareness

Highest frequency is observed in the Medium of Social Media which helps in the inference of Social Media being the major source of Awareness of Digital Payment Platforms.

Most Preferred Platform	Frequency
Paytm	14
GPay	82
BHIM	4
Amazon Pay	1
PhonePe	15
Other	5

**Table 2:** Most Preferred Platform

Highest frequency is observed in the Platform of Gpay, which aids to conclude that GPay (Google Pay) is the major platform used among the other Digital Payment Platforms.

- Statistical Tool :**Correlation**

Correlation is a statistical association between two variables, calculated as the correlation coefficient  $r$ . The coefficient can range from  $r = 1.0$  (a perfect positive correlation) to  $r = -1.0$  (a perfect negative correlation), with an  $r$  value of 0 indicating no relationship between the two variables.

## Karl Pearson's Coefficient of Correlation

$$r = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}}$$

## Relation Between Average Income and Spending Behaviour of an Individual via Digital Payment Platforms

Average Income ₹	X	Spending Behaviour ₹	Y
0-20,000	66	0-5,000	47
20,000-50,000	10	5,000-10,000	35
50,000-1,00,000	22	10,000-20,000	20
>1,00,000	14	>20,000	18

**Table 3:** Average Income and Spending Behaviour

Applying Karl Pearson's Coefficient of Correlation we get the value of correlation as

$$r = 0.7421367967.$$

Since the Correlation Coefficient is Positive, it is inferred that when the Average Income of the individual increases, so does the Spending behaviour using Digital Payment Platforms.

## 7. Findings and Suggestions

- There is an increased use of Digital Payment Platforms in the Indian Population which proves to be a good sign for the success of the Digital India Movement.
- Demographic factors that majorly seem to influence the usage were found to be education, age and income. Equal awareness in the gender variable is also to be noted. Technical Literacy is also a required major factor that influences the usage and must be improved to a larger extent of population.
- It was observed that the population faces both the advantages and disadvantages of the usage of Digital Payment Platforms, where it is in one way time saving, hinderances like network issues makes it difficult sometimes.
- The Spending Behavior using these Platforms is observed to have increased owing to increase in income and the convenience of the Digital Payment Platforms, that also results in a negative effect of Impulse Buying in users.
- Income hike gives people awareness of the different methods available to manage their earnings such as Digital Payment Platforms, and therefore results in an increase in the number of users of such platforms and need to be regularly updated to their user preferences to ensure smooth aid to the transaction processes.

## 8. Conclusion

India, to achieve coveted milestones of Full Digital Potential and to become a Leader in the Digital Economy globally has to plug the holes in its ship, by mainly concentrating on improving the ease of digital business operations and strengthening and promoting native digital products and its innovators to achieve the goal.

In the region where the study was conducted – Bangalore, the Government needs to focus on the Publicawareness and feedback of the Digital Payment Platforms as well and take actions to attain better Network Facilities all over the Nation along with ensuring the access of the same to all sections of society which will make the Indian Nation as a whole a strong leader in the Digital Future.

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