



A study of towards Digital Payment System with special reference to Coimbatore City

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Abstract

In recent years, the country has experienced a major rise in the use of digital payments. A digital payment or electronic payment, involves moving money from one account to another using a digital device like a mobile phone, point-of-sale (POS) terminal, or computer, and through a digital network such as mobile data or SWIFT. In 2015, events like demonetization, the launch of Jio network, and the outbreak of COVID-19 played a key role in accelerating the growth of digital payments in India. After the pandemic, people became more cautious about health and hygiene, and were worried about using cash, which led them to use digital payment methods more often. Digital payments include transactions made at the point of sale for goods and services through internet banking, mobile banking, or card payments using a smartphone. How people feel about digital payments has a big influence on whether they choose to use them. A structured questionnaire was used as a way to understand people's views on digital payments.

Keywords: Transactions, consumer perception, digital payment, digital wallets (UPI, Paytm, GPay, PhonePe)

Introduction

It has often been said that every disruption brings new opportunities, and one notable disruption was the announcement of demonetization by Prime Minister Mr. Narendra Modi on 8th November 2016. This move created a big chance for the growth of digital payments in India, and digital wallet companies quickly took advantage of the opportunity to increase their market share. Demonetization offered a special chance for people in India to start using digital payment methods as an alternative to cash. Using digital apps for money transfers changed how people behave and helped them adopt digital payment methods.

This change made it easier for people in rural areas to send and receive money, which wasn't possible before with traditional digital payment systems. Now, many foreign investors are looking to invest in the digital payments industry in India because of its huge potential for growth. There are several factors that are help in the digital payment industry grow and shift the economy from cash-based to less cash-based. These include better internet access on smartphones, non-banking financial institutions supporting digital transactions, one-touch payment options, the rise of the financial technology sector, and government support through incentives or tax benefits. All these factors are contributing to a positive environment for the growth of digital payments in India.

The pandemic has accelerated the shift towards digital banking and trade, and these changes are likely to be long-term, marking a new normal in how people behave as consumers in a postCOVID-19 world. The Reserve Bank of India and the government are placing a lot of emphasis on promoting digital payments. People can now use these payment methods from the comfort of their homes through online channels like mobile banking, web banking, cards, and more, avoiding the need to carry cash for things like paying bills or visiting places.

Objectives

- To study the awareness level of consumers towards digital payment systems.
- To identify consumer preferences among UPI apps (Paytm, GPay, PhonePe, etc.).
- To analyze consumer perception regarding safety, convenience, and speed.
- To find the challenges faced by consumers while using digital payments.
- To find out the customer perception and impact of demographic factors on adoption of digital mode of payment.

Statement of The Problem

The fast development of technology and the government's focus on a "Digital India" have changed how people handle money. Digital payment methods like UPI, Paytm, Google Pay, and PhonePe are growing in popularity because they are easy to use, quick, and accessible. However, even with these benefits, there are still some problems. Many users deal with issues like failed transactions, worries about safety, not trusting the system, technical problems, and not enough knowledge in rural and semi-urban regions. While young people in cities have widely accepted digital payments, a large number of people still use cash because they are unsure, scared of fraud, or don't know how to use digital tools. This creates a difference between what's possible and what's actually being used. So, it's important to look at how people think about digital payment systems—how aware they are, what they prefer, how satisfied they are, and the challenges they face. Understanding this will help find ways to improve these systems and make digital transactions more inclusive, trustworthy, and easy for everyone to use.

Scope of The Study

- To examine the awareness level of consumers regarding digital payment systems.

- To analyze consumer preferences among different digital payment platforms.
- To study the advantages and challenges experienced by consumers while using digital payments.
- To understand consumer perception in terms of convenience, speed, safety, and reliability.
- To provide suggestions for improving consumer trust and satisfaction with digital payment systems.

Limitations of The Study

This study has several limitations. The geographical scope is restricted to Coimbatore city and surrounding regions and the sample size is limited to respondents. The self reported data and questionnaire design may introduce biases. The cross sectional design and lack of control group limit longitudinal analysis and comparison.

The study does not cover the technical functioning of the apps or the policies of the government/RBI in depth. Instead, it is limited to consumer perception based on their experience and usage.

Research Methodology

Research methodology is a way to systematically solve the research problem a research design is purely and framework or plan to study the system that guides the collection and analysis of data.

Sampling size

Out of the entries population 50 respondents were chosen as samples.

Data Collection Methods

- **Primary data:** A study conducted in Coimbatore District in Tamilnadu. Data collected through Structured Questionnaire. A sample size of 50 was selected using the convenience sampling.
- **Secondary data:** has been collected from various website and journals for the analysis.

Data Analysis

The statistical tools used for this research are

- Simple percentage analysis
- Chi-Square

Simple Percentage

The percentage refers to a special kind of ratio percentage is used in making comparison between two or more series of data. Percentage analysis helps to find which factors is significant among a number of factors.

$$\frac{\text{No of Respondents}}{\text{Total No of Respondents}} = X \ 100$$

Chi – Square

The chi-squared test is done to check if there is any difference between the observed value and expected value.

Formula:

Chi square formula $\chi^2 = \sum(O_i - E_i)^2/E$

Review of Literature

Shamsher Singh & Ravish Rana: A study of consumer perception of digital Payment mode. The last decade has seen tremendous growth in use of internet and mobile phone in India. Increasing use of internet, mobile penetration and government initiative such as digital India are acting as catalyst which leads to exponential growth in use of digital payment.

S Fatonah, A Yulandari and F W Wibowo: A Review of E-Payment System in E-Commerce. The Era of Information and Communication Technology (ICT) and Digital innovation lead to dynamic changes in the business environment, where business transactions continue to shift from cash-based transactions to electronic-based transactions. The e-payment system was not introduced to replace cash but as a better alternative to cash and trade barter.

K. Suma Vally and K. Hema Divya: A Study on Digital Payments in India with perspective of Consumer's Adoption. The demonetization resulted in tremendous growth in digital payments.

Overview of The Study

In recent years, India has seen a big change in how people pay for things. This change has been driven by the government's push for a "Digital India" campaign, the launch of UPI, and the growing use of smartphones and internet access. Payment apps like Paytm, Google Pay, PhonePe, and other UPI-based services have changed the way people handle money. These apps are seen as quick, easy, and cash-free options compared to traditional ways of paying. They are especially popular with younger people and those living in cities, where using cashless methods has become a regular part of life. At the same time, small businesses, shop owners, and service providers have also started using these apps because they're affordable and easy to use.

The outbreak of the COVID-19 pandemic sped up this shift towards digital payments. With movement restrictions, social distancing rules, and worries about handling cash, both customers and businesses turned more to contactless and cashless methods. UPI transactions hit a record high during and after the pandemic, showing that digital payments are not just convenient but also necessary. This period helped increase digital financial inclusion and awareness, even in rural and semi-urban areas where cash was more commonly used before. Despite this growth, there are still challenges. Problems such as payment failures, security risks, cyber fraud, lack of digital knowledge, and low trust among older and rural users continue to slow down the adoption of these services. Therefore, it's important to understand how people feel about these systems to know how well they're accepted, find out what stops people from using them, and suggest ways to improve them. This study looks at how people view digital payments in terms of ease, speed, security, dependability, and overall satisfaction. It uses data collected directly from people through a questionnaire, along with information from reports and articles. The results of this study will help understand consumer behavior and support banks, fintech companies, and government officials in making digital payment systems better and more trusted.

Analysis and Interpretation

Table Showing Gender of Respondents

S.no	Particulars	No. of respondents	Percentage%
1	Male	34	68%
2	Female	16	32%
3	Total	50	100%

Interpretation

From the table out of 50 respondents, 68% of respondents

are male and 32% of respondents are female.

The majority of the respondents 68% are male.

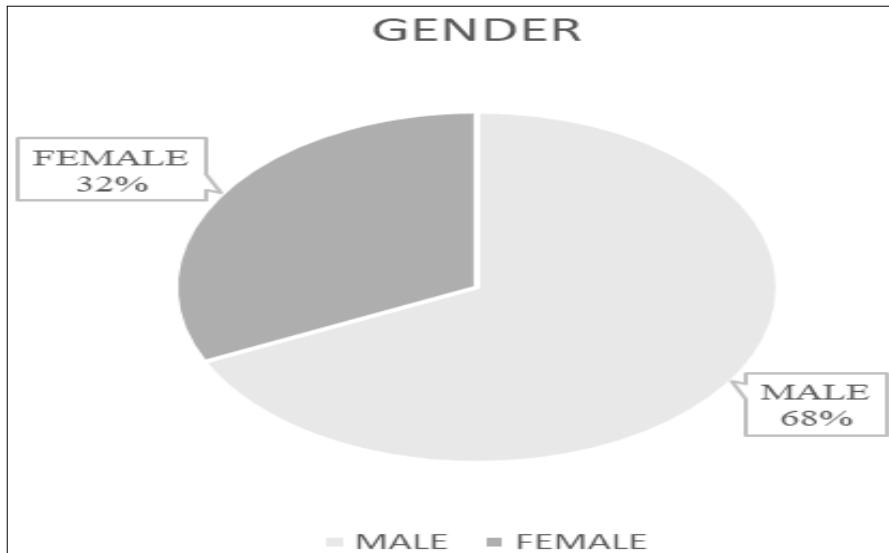


Chart Showing Gender

Table Showing Age of Respondents

S.NO	Particulars	No. of respondents	Percentage%
1	UNDER 18	5	10%
2	18-25 YEARS	12	24%
3	25-45 YEARS	13	26%
4	45-50 YEARS	12	24%
5	ABOVE 50 YEARS	8	16%
6	TOTAL	50	100%

Interpretation

From the above table 10% of respondents are under 18 and 24% of respondents are 18-25 and 26% of respondents are

25-45 years and 24% of respondents are 45-50 years and 16% of respondents are above 50 years.

The majority of the respondents 26% are 25-45 years.

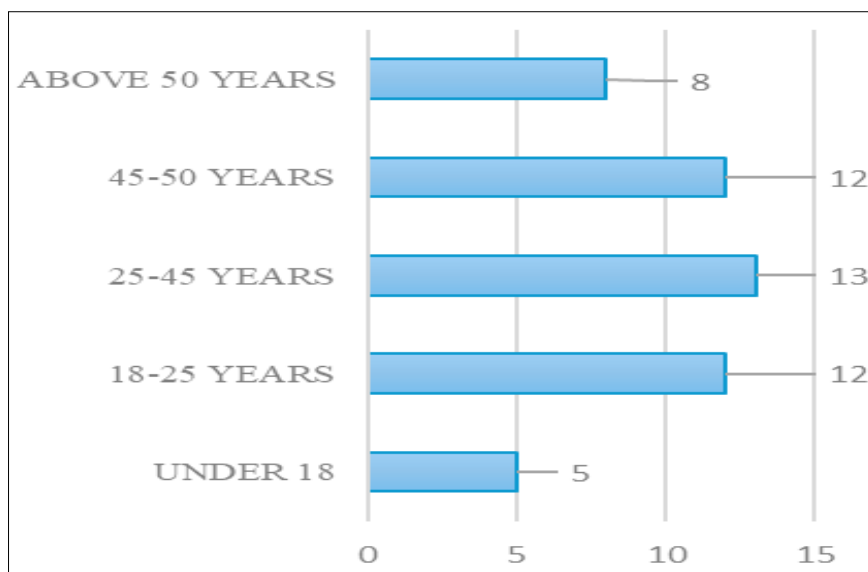


Chart Showing Age of Respondents

Table Showing Most Frequently Used Digital Payment App of Respondents

S.no	Particulars	No. of respondents	Percentage%
1	Google pay	20	40%
2	Phonepe	6	12%
3	Paytm	15	30%
4	Bank's upi app	1	2%
5	I mainly use cash/cards	3	6%
6	Others	5	10%
7	Total	50	100%

Interpretation

From the above table 40% of respondents are Google pay and 12% of respondents are phonepe and 30% of respondents are paytm and 2% of respondents are Bank's UPI app(e.g.,SBI,HDFC,etc.) and 6% of respondents are I

mainly use cash/cards(not digital apps) and 10% of respondents are others.

The majority of the respondents 40% are Google pay.

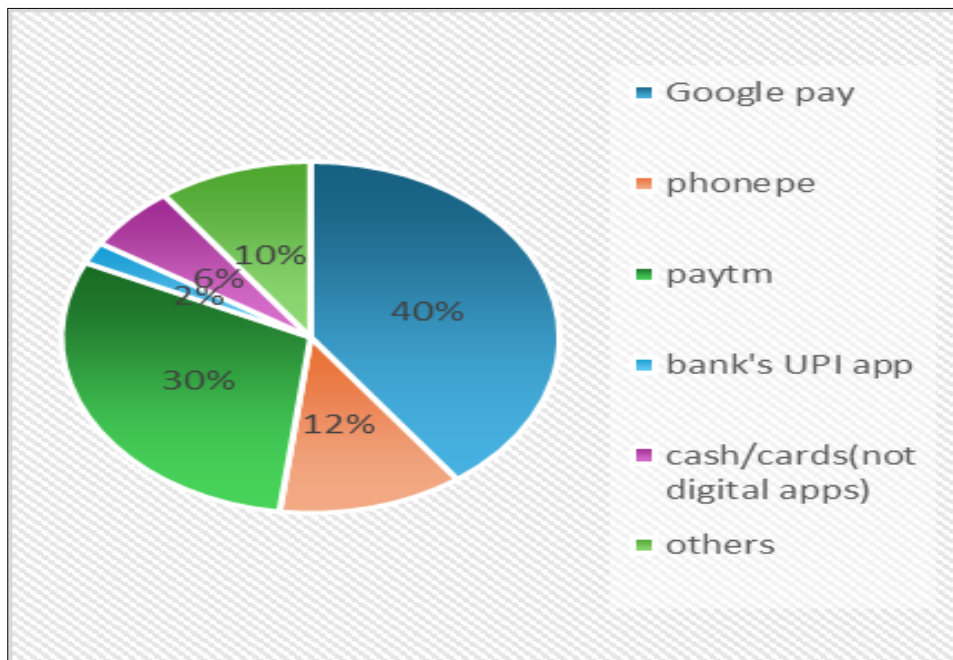


Chart Showing Most Frequently Used Digital Payment App of Respondents

Chi-Square Test

Observed values (actual data)

Age group	Google pay	Phonepe	Paytm	Bank's upi app	I mainly use cash/cards	Others	Total
Under 18	2	1	0	0	1	1	5
18-25 years	7	1	4	0	0	0	12
25-45 years	6	1	5	0	0	1	13
45-50 years	4	2	4	1	0	1	12
Above 50 years	1	1	2	0	2	2	8
Total	20	6	15	1	3	5	50

Expected Values

Age group	Googlepay	Phonepe	Paytm	BAN K's upia PP	I mainly use cash/cards	Others
Under 18	2.00	0.60	1.50	0.10	0.30	0.50
18-25 years	4.80	1.44	3.60	0.24	0.72	1.20
25-45 years	5.20	1.56	3.90	0.26	0.78	1.30
45-50 years	4.80	1.44	3.60	0.24	0.72	1.20
Above 50 years	3.20	0.96	2.40	0.16	0.48	0.80

Result

Chi-square statistic (X²): 21.00
 Degrees of freedom (df): 20
 p-value: 0.397

Interpretation: Since $p > 0.05$, there is no statistically significant relationship between age group and the most frequently used digital payment app the observed differences could be due to chance.

Table Showing Monthly Income of Respondents

S.no	Particulars	No. of respondents	Percentage
1	below 10,000	8	16%
2	10,000-29,999	8	16%
3	30,000-49,999	12	24%
4	50,000-99,999	6	12%
5	1,00,000 & above	2	4%
6	prefer not to say	14	28%
7	TOTAL	50	100%

Interpretation

From the above table 16% of respondents are below 10,000 and 16% of respondents are 10,000-29,999 and 24% of respondents are 30,000-49,999 and 12% of respondents are

50,000-99,999 and 4% of respondents are 1,00,000 & above and 28% of respondents are prefer not to say.

The majority of the respondents 28% are prefer not to say.

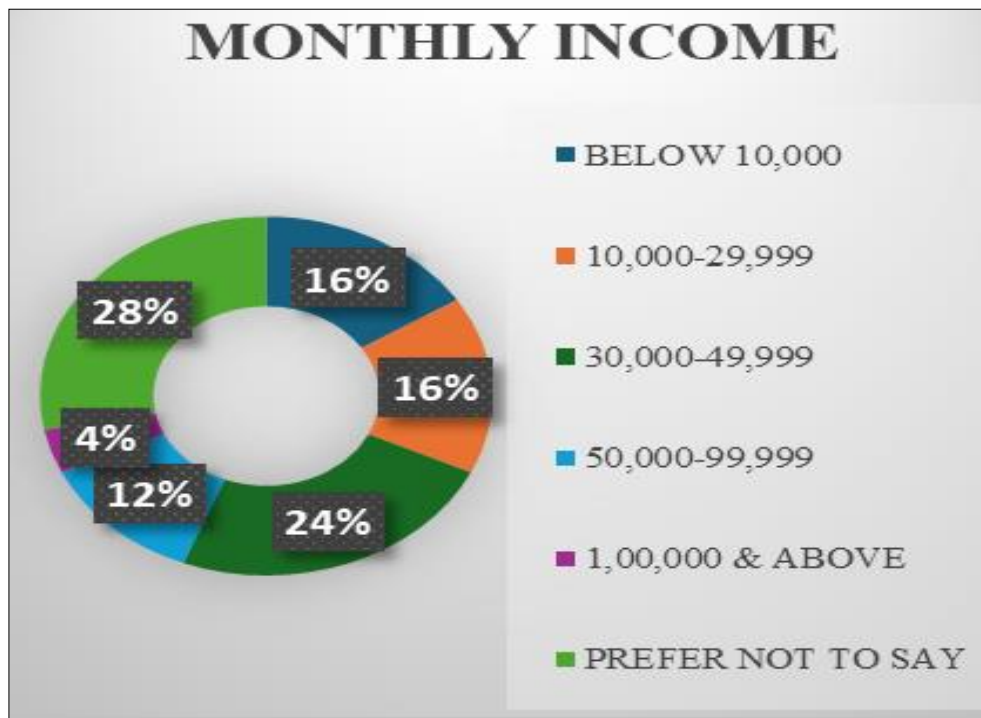


Chart Showing Monthly Income of Respondents

Table Showing How Often They Make Digital Payments of Respondents

S.no	Particulars	No. Of respondents	Percentage
1	Daily	11	22%
2	Weekly	16	32%
3	Monthly	12	24%
4	Occasionally	9	18%
5	Never	2	4%
6	Total	50	100%

Interpretation

From the above table 22% of respondents are Daily and 32% of respondents are weekly and 20% of respondents are

monthly and 18% of respondents are occasionally (few times a year) and 4% of respondents are never.

The majority of the respondents 32% are weekly.

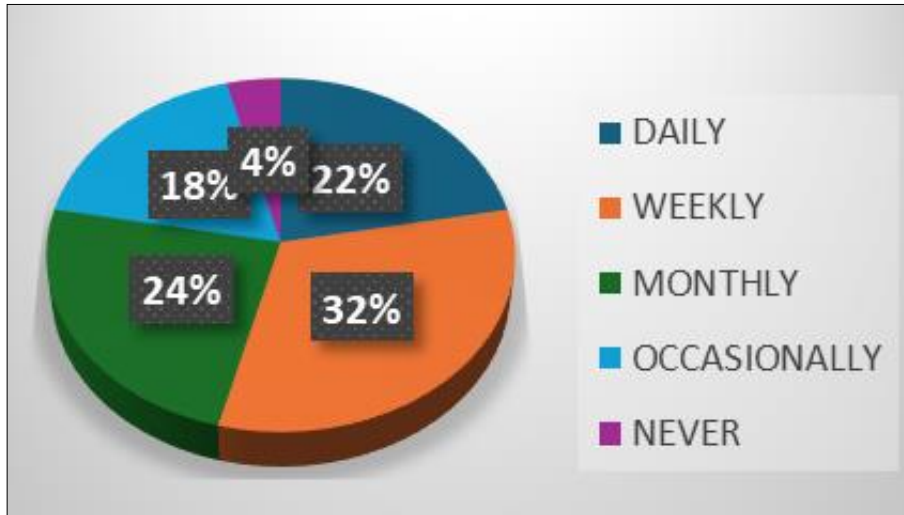


Chart Showing How Often They Make Digital Payments of Respondents

Chi-Square Test

Observed Values (Actual Data)

Monthly income	Daily	Weekly	Monthly	Occasionally	Never	Total
Below 10,000	3	4	1	0	0	8
10,000-29,999	1	4	2	1	0	8
30,000-49,999	1	4	5	2	0	12
50,000- 99,999	1	2	2	1	0	6
1,00,000 & above	0	1	0	0	1	2
Prefer not to say	5	1	2	5	1	14
Total	11	16	12	9	2	50

Expected Values

Monthly income	Daily	Weekly	Monthly	Occasionally	Never
Below 10,000	1.76	2.56	1.92	1.44	0.32
10,000-29,999	1.76	2.56	1.92	1.44	0.32
30,000-49,999	2.64	3.84	2.88	2.16	0.48
50,000- 99,999	1.32	1.92	1.44	1.08	0.24
1,00,000 & above	0.44	0.64	0.48	0.36	0.08
Prefer not to say	3.08	4.48	3.36	2.52	0.56

Result

Chi-square statistic (X²): 28.40

Degrees of freedom (df): 20

p-value: 0.100

Interpretation: Since $p > 0.05$, there is no statistically significant relationship between monthly income and frequency of digital payment usage. This means the frequency with which people make digital payments does not strongly depend on their income level in this sample.

Findings

Simple Percentage Analysis

- The majority of the respondents 68% are male.
- The majority of the respondents 26% are 25-45 years.
- The majority of the respondents 22% are students, business owner and unemployed.
- The majority of the respondents 28% are prefer not to say.
- The majority of the respondents 66% are paytm wallet and google pay.
- The majority of the respondents 40% are google pay.
- The majority of the respondents 32% are weekly.
- The majority of the respondents 34% are agree.

- The majority of the respondents 36% are agree.
- The majority of the respondents 28% are disagree.
- The majority of the respondents 38% are agree.
- The majority of the respondents 38% are disagree.
- The majority of the respondents 28% are agree.
- The majority of the respondents 30% are app slowed/blocked during payment and difficulty linking bank account
- The majority of the respondents 26% are cashbacks/offers/rewards amd record keeping/easy tracking of expenses.
- The majority of the respondents 40% are poor customer service.
- The majority of the respondents 24% are better awareness programs & tutorials.
- The majority of the respondents 42% are no.
- The majority of the respondents 36% are satisfied.

Suggestions

- **Enhance Trust & Security:** Strengthen fraud detection systems, provide insurance on transactions, and increase user education on safety.
- **Improve Reliability:** Reduce transaction failures by upgrading infrastructure and server capacity.
- **Better Customer Support:** Quick dispute resolution and refund mechanisms should be implemented.
- **Reward Programs:** Maintain attractive cashback and loyalty schemes, as they are a strong driver of adoption.
- **Awareness Campaigns:** Conduct digital literacy programs for rural users and older age groups to build confidence.
- **User-Friendly Design:** Simplify app interfaces for non-tech-savvy user.

Conclusion

The study shows that digital payment systems are widely adopted, especially among young and middle-income groups, with Google Pay and Paytm leading the market. Consumers strongly value convenience, speed, and rewards, which are the main reasons for adoption.

However, security concerns, transaction failures, and poor customer support remain barriers to wider trust and satisfaction. While most users are satisfied, they expect improvements in fraud protection, reliability, and quick refunds.

Overall, digital payment systems in India have achieved high consumer acceptance and are an integral part of daily life, but addressing security and service quality issues is essential for achieving full consumer trust and supporting India's move towards a cashless economy.

Reference

http://cashlessindia.gov.in/digital_payment_methods.html
<https://share.google/z7EmhK4maXLvnLb9R>
<https://www.icommerceland.com/open-access/study-of-consumer-perception-of-digital-payment-mode.php?aid=86419>
<https://share.google/4DdfuNx7YicJ0jNKh>
<https://www.scribd.com/document/576834584/Customer-perception-towards-digital-payments-in-India>
<https://share.google/KsQQ9143vEYgnRBJn>
<https://forms.gle/6YtRzAUMaupPBa4M9>