

## A CRITICAL ANALYSIS OF CONSUMER PERCEPTION FOR E-PAYMENT SYSTEM

Rushikesh Kale, MBA Student,  
Indira Institute of Management Pune  
rushikesh.kale@indiraiimp.edu.in

Dr. D.K. Sakore, Associate Professor ,  
Indira Institute of Management Pune  
digambar.sakore@indiraiimp.edu.in

Dr. Dipanjay Bhalerao, Associate Professor,  
Indira Institute of Management Pune  
Dipanjay.bhalerao@indiraiimp.edu.in

### ABSTRACT

The digital payment ecosystem in India has significantly grown over the last decade because of the Digital India Program, which happens to be a prestigious program of Government of India to make India a leader in global digital payment landscape. There has been a leapfrogging growth in the Indian internet and mobile phones usage in India. This was further boosted during the pandemic era in last couple of years. This research is aimed to explore the consumer perception towards different key dimensions towards the e-payment system, such as, Preferences, problems and key usage considerations. This study contributed by exploring the factors driving the consumer perception towards the e-payment system and its other dimensions of usage. This research was attempted to address a significant gap of online perception towards electronic payment system was studied in this research as future direction based on the existing literature studies.

**Keywords:** Customer Perception, E-Payment System, E-buying, Online Consumer, Online buying

### Introduction

With over 400 million smart phone users, India is well poised to grow these numbers up to 800 million by the end of 2022. According to Statista report (Rathore,2022), the internet user numbers are also going to increase significantly from 750 million to 1100 million by 2025. These numbers forming a ripe ecosystem for the digital payments, have given strong boost to digital payments or e-payment system in India. Another boost to this was the demonetisation which was done in year 2016, which levelled up all sectors on the front of e-payment system. This kind of whopping growth has given a bigger playing market canvas to the government players such as - NPCI, BHIM and UPI and private players such as Google Pay, Phone Pe, Paytm, M-Pesa, Airtel Money and many others in the recent past.

### Digital Payment Alternatives present in India

The key digital payment alternatives available in India are as mentioned below:

**E-Wallets:** These types of digital payment tools let consumers pay through the internet presence or mobile presence through the digital devices connected to the banks.

**AEPS:** This is known as Aadhaar Enabled Payment System, which enables the user with a 12 digit unique identification number for usage of the digital payment system.

**Debit Cards/ Rupay Platform:** This is a very popular B2B, B2C and C2C digital payment transactions through authenticated digital accounts by the banks of the connected account.

**Credit Card Payment:** The credit card is a system where the money of the bank is used to pay the money on credit basis, and paid later to the concerned bank, through digital devices and internet banking system also, within the ambit of regulatory rules.

**Unified payment Interface (UPI):** UPI is a swift e-payment system launched by the National Payments Corporation of India (NPCI), permitting the user to pay between two payment bank accounts with security and authenticity.

The present study intends to look at the consumer perception of digital payment methods on the basis of their demographic characteristics like gender, age.

### **Literature review**

Studies done on digital payment field indicate that digital payment system (Somasundaram,2020) should necessarily be reinvented and reimagined to enable the sufficient protection and security of the payment transactions of the consumers. Due simplification should be brought in reality for the ease of use of the digital payment system users by system modifications to minimise infrastructural problems of internet connectivity to offer a easy to use user interface experience for the users. (Abraham, 2020).

Studies on driving factors of consumers perception of e-payment system brought factors such as online security, essentiality, time and online consumer satisfaction. (Saxena and Chaudhary,2019). Rising digital payment usage was further fuelled by the enriched technological digital infrastructure and policy changes boosting user friendly experience. (Goel, 2019)

Extending the above direction of studies further, it was found that (Chawla and Joshi, 2019)consumer attitude and intention were majorly driven by the factors such as perceived ease of use (PEOU) and perceived usefulness (PU) with Online trust, online security and facilitating environment. Going further studies also found that digital payment create lot advantages to the consumers such as smooth purchase experience, buying decision quality, and quality of the buying process as compared to the conventional one. (Sudhir & Narayanamma, 2018).

Further Studies on issue, explored that the perception and consciousness of the users is driven by the computerised education, basic internet awareness, a mindful approach towards overall internet environment as user of digital payment were found to be critical factors in the context of e-payment systems. (Rajanna, 2018)

Regarding the contemporary aspects of these areas, (Vidyashree, 2018) examined people's attitudes towards digital money and discovered that the majority of respondents were aware of electronic payments and preferred to use them. However, during this research, they discovered that people primarily used a few digital money services, such as DTH recharge, household bill payment, money transfer, etc. Digital money is not widely understood or used in daily life, which must change with the addition of new value-added services. Digital money is not widely understood or used in daily life, which has to change with the addition of new value-added services. With the advent of new payment systems and platforms like UPI, users can now conduct digital transactions as easily as texting. Service is available around-the-clock, unlike RTGS and NEFT, which are unavailable on holidays or outside of normal business hours. This will greatly increase system efficiency and aid India's transition to a fully cashless society. (Kakadel, & Veshne, 2017). Studies on the factors influencing the use of electronic payment systems have revealed that perceived security and trust are significantly influenced by both technical protection and individual past experiences. Some respondents perceive the timing requirements and complexity of transaction processes to be onerous, which may have a negative impact on their view of security and trust. and discovered that perceptions of trust and security are significant factors in EPS use (Emrah, 2017). An intriguing study discovered that the factors that influence online purchasing decisions include anxiety-related emotional problems, perceived risk, and online satisfaction (Chengwen and Shuling 2011).

In the above literature review, the research gap that was found was the lack of deep studies, that give insights about consumer perception factors which impact the usage of electronic payment system, hence the researchers aimed to study on these areas further in the context of Indian young online buyers.

### **Research Methodology**

#### **Objectives**

- 1) To study the factors that contribute to the use of electronic payment system.
- 2) To find out preferences of online consumers about the Electronic Payment Application, among different respondents.

#### **Scope Of The Study**

Payment methods have both financial and non-financial costs, such as transaction fees, travel expenses, security charges, insurance costs, and so forth. Both traditional and technological approaches have some costs associated with them. This study aims to identify the variables that may drive a customer's decision to choose a particular electronic payment system. The students are really curious in electronic payment. The people find this new method of providing services to be more convenient and efficient. The purpose of this study is to determine how consumers see the electronic payment system.

**Collection of Data:**

Data was collected through both primary and secondary data sources.

1. Primary Data: The data for the study is taken from the students of college. We have selected age group of 23 to 37 years. The primary data and information are collected from students with the help of questionnaire.
2. Secondary Data: The data was collected from the website's magazines, newspapers, research papers and articles. We have taken ample amount of data for the research.
3. Sample size: 105, 4. Sample method: Convenience sampling
5. Tools for analysis

The Data analysis was enabled by usage of "Microsoft Excel". Simple percentage methods and weighted mean methods are the techniques used to analyse the data. Tables, pie charts, and bar graphs have all been used to illustrate the data.

**Data Analysis**

| Data Analysis- Profile of respondents |                |             |
|---------------------------------------|----------------|-------------|
| Variable                              | Classification | Total N (%) |
| Gender                                | Male           | 50.5%       |
|                                       | Female         | 49.5%       |
|                                       | Total          | 100 %       |
| Age                                   | 23 to 27       | 70.5%       |
|                                       | 28 to 32       | 12.4%       |
|                                       | 18 to 22       | 13.3%       |
|                                       | 33 to 37       | 3.8 %       |

Table -1- Profile of respondents

| What is your preferred mode of electronic payment?                                     |         |
|--|---------|
| Parameter  | Percent |
| Credit/debit card  | 62.9    |
| Mobile wallets (PayTM, PhonePe etc.)   | 93.3    |
| Online Banking (NEFT, RTGS, IMPS)  | 51.4    |
| Micro ATM  | 17.1    |
| Point of Sale (Usually a handheld device to insert card at point of sale)              | 21      |
| Mobile Banking   | 26.7    |
| AEPS (Aadhar enabled payments system, payment requires Aadhaar Card, fingerprint etc.) | 2.9     |

Table 2- Preferred mode of electronic payment

Interpretation: As per table 2- preferred mode of Electronic Payment – Most of the respondents (93%) preferred mobile wallets (Paytm, Google Pay, PhonePe, AmazonPay) followed by Credit cards and online banking (NEFT, RTGS). Least respondents preferred Micro ATM, Aadhar enabled payment system and mobile banking. This indicates that the mobile wallets is the most sought after E-payment system, amongst all segments of the target consumers going for the digital payment. As per the past studies and developments, this has been possible due to three major development by the government of India on Jandhan, Bank and Mobile integration.

| What factors influence the usage of electronic payment system? |         |
|--|---------|
| Parameter  | Percent |
| Privacy and security   | 76      |
| Convenience  | 8       |

|                       |   |
|-----------------------|---|
| Discount and others   | 6 |
| Transaction fee       | 1 |
| 24/7 transfer         | 4 |
| No need to carry cash | 2 |
| Time saving           | 3 |

Table 3- Factors influencing usage of electronic payment system.

Interpretation: As per table 3- while using electronic payment system people are most concerned with privacy, ease in using these systems and the discounts offered while transaction. These are the 3 main factors which matters a lot. Even though EPS offers their users with benefits like 24/7 transfer, Cashless transactions, Minimal transaction fees and Fast processing transaction they are least attracted towards it.

| Opinion on electronic payments system  |         |
|--|---------|
| Parameter  | Percent |
| I read the term and conditions before doing online transaction                                 | 75      |
| I am aware of the threats in EPS   | 77      |
| I check whether website start with "https://"  | 65      |
| I am aware of the privacy and security features website  | 74      |
| I think usage of OTP is a secure mechanism in digital payment                                  | 92      |
| I believe my personal information is not disclosed to any third party by EPS service provider. | 85      |

Table 4- Opinion about safety and security measures in electronic payment

Interpretation: According to Table 4, when asked about their opinions of EPS, 75% of respondents said they read the terms and conditions before making an online purchase, 77% said they are aware of EPS's threats, 74% said they are aware of the website's privacy and security measures, 92% said an OTP is a secure method of making a digital payment, and 85% said they believe EPS will not reveal their personal information. This data shows, that in a way the consumer segment is growing in the required awareness about digital payments security.

| Preferred Device used for carrying out electronic payment transactions? |         |
|---|---------|
| Parameter   | Percent |
| Smartphone  | 96.2    |
| Computer  | 37.1    |
| Tab   | 8.6     |

Table 5- Device usages in Electronic Payment System

Interpretation: As per Table 5 while doing transactions, 96% respondents tend to use smartphone, 37% tend to use computer and 9% use tablets. This clearly indicated the usage of smartphone on dominating direction setting the context of the future digital payment ecosystem. This data shows that the smartphones are dominating the digital payments in India as per the sample data. The leap of taken by the Indian consumer through device in the digital payment, will significantly contribute to the global leadership of India in digital payments. This also attracts the attention of the researchers in this area, to investigate this inclination perception on different fields (products/services) of online buying.

| Most Preferred electronic wallet. |         |
|-----------------------------------|---------|
| Parameter                         | Percent |
| Google Pay                        | 36      |
| Paytm                             | 20      |
| Phonepe                           | 31      |

|            |   |
|------------|---|
| Bhim UPI   | 2 |
| Mobikwick  | 3 |
| PayPal     | 4 |
| Amazon Pay | 4 |

Table 6- Preferred Electronic Wallet System

Interpretation: As per table 6 preferred Mobile wallet 1<sup>st</sup> choice – Gpay and PhonePe, 2<sup>nd</sup> choice – Paytm. Most of the respondents prefer to use these 3 Apps only followed by Paypal, Amazonpay, Mobikwik. The Gpay or Google Pay has clearly come out to be the most sought after payment platform, due to its early domination in the internet field and that invites attention towards its information search engine domination, through which it diverts the search seeker to its payment platform. It is interesting to see that PhonePe, that this Indian originated platform has gathered attention of Indian users for digital payment, followed by PayTM which is another Indian originated player in this field. The moves of Amazon pay are to be watched.

| Commonly used purposes of electronic payment (Habits of spending)        |         |
|--|---------|
| Parameter  | Percent |
| 1st Choice 2nd Choice 3rd Choice 4th Choice                              |         |
| Household payment  | 45      |
| Electronic fund transfer   | 14      |
| Mobile recharge  | 24      |
| Online shopping, Ordering food online                                    | 18      |
| Utilities (Electricity, Gas, Water etc.)                                 | 2       |
| Financial Transactions (banks, insurance, FastTag, mutual funds, stocks) | 3       |

Table 7- Habits of spending

Interpretation: As per table-7, 45% Respondents use EPS mainly for household payments, 24% for mobile recharge, 18% for online shopping and food ordering, 14% for electronic fund transfer and rest 5% for (fastags, mutual funds, Insurance and stocks)

| DEPENDENCE on DIGITAL PAYMENTS                 |         |
|--|---------|
| Parameter                                      | Percent |
| I have completely switched to digital payments | 50.5    |
| It has increased                               | 48      |
| It has decreased                               | 0.5     |
| It has not changed                             | 1       |

Table 8- Dependence on digital payments

Interpretation: According to table 8, 50.5% of respondents have moved entirely to using digital wallets, 48.6% have increased the number of times they use them, and 1% haven't changed at all. This shows that the view of using digital payments has shifted dramatically in their favour. This represents a substantial shift in the way payments will be made for all future purchases made by the research's target audience. The major boost to this payment shift has come from two dimensions of digital environment. One from the external push due to pandemic, due to which the consumers got shifted to digital payments. The second push has come from the supporting policies and infrastructure push by government and private partnerships in terms of the policy and product combination synergy across the verticals in digital payments. The future of digital payments will drive many upcoming sectors and subsectors.

| Feedback on awareness campaigns |         |
|---------------------------------|---------|
| Parameter                       | Percent |
| News (Newspaper, TV, Internet)  | 19      |
| Ads on Internet or TV           | 54.3    |

|  |    |
|--|----|
| YouTube, blogs                                     | 5  |
| Bank employees / Customer care                     | 2  |
| RBI's/ NCPI's website , Service provider's website | 8  |
| Friends/ family                                    | 12 |

Table 9- Awareness Medium of Digital Payment

Interpretation: As per table 9, 54.3% are aware about the digital payments app from Ads on Internet/TV, 19% from newspaper/news channel, 12% from friends & family, 5% from blogs & Youtube, 2% from bank employees and 8% from RBI/NCPI'S website

### Findings and Discussion

The majority of respondents believe that electronic transactions are preferable to mobile wallets because they are more user-friendly and simple to use. Credit and debit cards are the next most popular methods for conducting electronic transactions. The respondents said they prefer using an electronic payment method because it gives privacy and security. Another important argument in favour of it is that it saves time. Internet use is required for electronic payment systems, and trust in service providers and security risks are other significant barriers that respondents encounter in implementing electronic payments. It is clear that most of the respondents think OTP is a secure mechanism and they are aware about threats in digital payments. The most preferred electronic payment wallet among the respondents are Paytm and Bhim UPI. The most used purpose of carry out electronic transactions is financial transaction, and another important use is for making electricity, gas payments. It is found that the frequency of usage of electronic transactions is between 3-10 times in a week. After pandemic usage of electronic payment is increased. It has been discovered that advertisements on TV or the internet help to raise public awareness and that viewers find these advertisements to be very educational. The payment system in India is quickly moving towards more IT-based systems. This variation led to the development of electronic systems for transaction settling. The study's main focus is on how customers perceive using an electronic payment system, and it aims to identify the aspects that affect how individuals use EPS. Our main goal is to determine how the pandemic affects the use of electronic payment systems, which awareness campaigns help to spread awareness about EPS, and whether or not these advertisements were actually helpful. Because advertisements have the power to persuade people, this research will assist EPS service providers in understanding market needs and meeting customer expectations.

### Conclusion

The goal of the current study was to examine how consumers felt about electronic payment systems. According to a study based on sample data, persons who use electronic payment systems are most worried about privacy, simplicity of use, and discounts provided during transactions. These are the three primary characteristics that matter most. The three most popular electronic payment applications, according to different respondents, are Google Pay, PhonePe, and Amazon Pay. Compared to traditional bank transactions, people are more inclined to use electronic payment systems because of how simple and quick the transactions are, which makes it easier for them to make the payment. The majority of people are moving away from cash transactions and towards digital payments. Increasingly, individuals prefer to use their smartphones rather than desktops to make payments. Maximum Consumers are increasingly choosing to make digital payments rather than cash ones. These digital payment apps' brand recognition is steadily rising thanks to online, print, blog, and television advertisements. Digital payments may offer a viable avenue for future research in the Indian setting. Researchers might undertake empirical analysis on the consumer and supplier sides to gain a sense of the demand and supply dynamics with a bigger sample size. Therefore, it is advised to conduct pilot studies to determine the crucial elements required for a digital economy to succeed in developing nations like India. The study's previous mentioned shortcomings are also something the authors would like to mention.

The respondents' opinions are not necessarily definitive because they may occasionally differ depending on the circumstance. The validity of the information provided by the respondents was taken into consideration when conducting this study. The sample size of this study was modest and hence not sufficient to be generalised , hence more comprehensive samples are suggested for future studies.

### References

- Abraham, M. (2020), "Digital Wallets-Reinforcing the New India?" Studies in Indian Place-Names., Vol-40, Issue-60, pg. No 9
- Chawla, D., & Joshi, H, (2019), "Consumer attitude and intention to adopt mobile wallet in India, An empirical study" International Journal of Bank Marketing, Vol 37(3), Pg No 1-8

- Chengwen Y., Shuling L., (2011), "Measuring the antecedent effect of service cognition and internet shopping anxiety on consumer satisfaction with e-tailing service", *Management and Marketing*, vol 6, no 1, pp 59-78
- Somasundaram M.P.D., (2020), "A Study On Perception Of Consumers Towards Digital Payment" *Mukt Shabd Journal* Vol. 05, No. 03, Pg No. 1-12.
- Goel, R., Sahai, S., Vinaik, A., & Garg, V, (2019), "Moving from cash to cashless economy: -A study of consumer perception towards digital transactions" *International Journal of Recent Technology and Engineering*, Volume-8, pg. No.1-7
- Kakadel R.B., Veshne N. A., "Unified payment interface (UPI) - a way towards cashless Economy", *International Research Journal of Engineering and Technology (IRJET)*, Volume: 04 Issue: 11
- Rajanna, K.A. (2018), "Perception and Awareness of Customer towards Cashless Transaction; A Case Study", *International Journal of Application or Innovation in Engineering & Management (IJAIEM)*, Volume 7, Issue 3, Pg No 1-6
- Saxena, R., & Chaudhary, S. (2019), "Consumer Perception towards Mobile Wallet" *International Journal of Advance and Innovative Research*. Vol.08 Issue-37, 11
- Manya Rathore (2022), "Share of households who used digital payments in India in 2020" Statista report, 10, Retrieved from Statista Data base of 2022 report.
- Sudhir, M. D., Narayanamma, P. L., & Professor, A. (2018). "Consumer Perception towards Digital Payment" *Journal of Emerging Technologies and Innovative Research*, Volume 5, Issue 8, pg. No 1-5
- Vidyashree. D.V, Harshitha.J.S, Darshini.A (2018) "a study on people's attitude towards digital money", *International Journal of Computer Engineering and Applications* Volume 12, Pg No 1-9