



## A study on the level of awareness of digital payments in India among the Gen Z population

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**Abstract:** Advancement in Infotech (IT) has altered many aspects of our lives, most notably by offering a simple method of getting around for electronic payments. The Indian government pushed its citizens, either directly or indirectly, to do all commercial transactions online during the Demonetization phase. The general public began to switch from old payment methods to digital ones that offered simplicity, safety, and security. The Indian market has begun to accept digital payments as a result of the enormous technology advancements in smartphones and accessible internet access. The percentage of digital payments made through alternative methods is also growing quickly. The aim of the current study is to learn more about the different types of digital payments used by everyday people in today's society, and the level of awareness of digital payments in India among the Gen Z population. Both primary data and secondary data are used in this study. The goal of the current study is to learn more about the many kinds of digital payment transactions that everyday people use in today's society. The outcome suggests that the digital revolution has made cashless transactions simple. As a result, UPI's monthly value inched above the Rs1 trillion (\$14 billion) mark in December, increasing by almost eight times over the previous year. National Payments Corporation of India data showed that UPI also attained a monthly volume of over 600 million, which was four times the number of UPI transactions in December 2017. Now, inspired by other cryptocurrencies, the RBI has launched its own digital currency called e-RUPI, which is not backed by any physical currency and is completely different from any other digital payment, which will further revolutionize the digital payments space in India.

**Key Words:** Digital Payments, UPI, Demonetization, CBDC, e-RUPI, Neo Banks.

### 1. INTRODUCTION:

A digital payment is one that is made via digital methods. Both the payer and the payee send and receive money using digital means. The digital payments don't include any paper money. Digital payment transactions are done entirely online. It is a swift and pragmatic method of payment. Digital payment systems that are currently accessible include debit and credit cards, digital wallets, the Unified Payment Interface (UPI), e-RUPI (CBDC), the National Electronic Fund Transfer (NEFT), the Real Time Gross Settlement (RTGS), Electronic Clearing Service (ECS), the Aadhar Enabled Payment System (AEPS) and mobile banking. Digital payments are having an impact on our daily lives and starting to offer new, innovative, and useful services thanks to recent technological advancements. According to the World Economic Forum (WEF), 52% of people in India have a preference for cashless payments, with South Korea at the top of the list at 77%. The number of smartphone users has increased exponentially, which has also paved the way for digital transactions, which can be seen in this report from the National Payments Corporation of India, which shows that it has also reached a monthly volume of over 600 million, which is four times the number of UPI transactions in December 2017 (NPCI).



## 2. STATEMENT OF PROBLEM:

The literacy rate in India was 74.37% in 2018, which explains why many digital payment systems are not widely used and people feel hesitant using them for routine purchases. A common misconception among them is that using digital payment nodes can lead to excessive spending, and that banks charge high transaction fees for using digital payment nodes. The Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA), which aims to bring digital literacy to 6 crore rural families, has been approved by the Union Cabinet chaired by Hon'ble Prime Minister Narendra Modi. By March 2019, the programme has invested Rs 2,351.38 crore in bringing digital literacy to rural India. PMGDISHA is expected to be one of the largest digital literacy initiatives in the world. Digital illiteracy isn't as prevalent among digital nomads (Gen Z).

## 3. OBJECTIVE OF THE STUDY:

The overall objective of the study is to gain knowledge about the different types of digital payments and how aware Gen Z is of them. The exact objectives are as follows,

- To explore the multiple digital payment methods offered by different financial institutions.
- To explore the awareness of Generation Z in relation to UPI and CBDC.
- To determine the scope of digital payment operations in online transactions and make appropriate recommendations for managing digital payments in a simple and practical manner.

## 4. REVIEW OF LITERATURE:

- Duvvuri Subbarao (2016), in his book, reveals the government's plan. By promoting the use of electronic payments for all transactions instead of cash payments, both the government and the RBI are helping India transition to a less cash-based economy. The transition from cash to electronic payments is ongoing and progressing steadily, but its implementation will depend on public acceptance, which is partly a matter of making electronic payments more convenient for people to use. However, enabling the transition to a less cash-dependent economy is ultimately about true financial inclusion.
- G. Sudha and M. Tangajesu Sathish 2020, in their article, stated that retailers would start accepting digital payments post demonetization. The researchers conducted an analysis to determine the different forms of payments used before and after demonetization. The majority of retailers were using different software to process their payments.
- M. Thangajesu Sathish, R. Sermakani and G. Sudha's 2020, study points out that card or e-payment systems cannot completely replace the traditional cash transaction system. People can adopt and use their mobile wallets for bill payments, money transfers, grocery shopping and other activities. According to the study, trust is the most important element that directly influences user satisfaction and has a significant impact on many users' intentions to use mobile wallets.

## 5. TYPES OF DIGITAL PAYMENTS:

### 5.1 Payment Cards

Credit and debit cards are the two most common types of payment cards. Payment cards are usually embossed plastic cards measuring 85.60 x 53.98 mm, conforming to the ISO/IEC 7810 ID-1 standard, and the ISO/IEC 7812 numbering standard is usually also adhered to by the embossed card number. Most standard credit and debit cards have an electronic link to the cardholder's account(s). These accounts can be credit, loan or savings accounts and the card is used to verify the cardholder. The Card Verification Value (CVV) number and the expiration date of the payment card are the pieces of information needed to use a payment card. To identify the cardholder and reduce the risk of fraud, credit and debit cards use a CVV, which is a combination of attributes.

#### a) Debit Card

In India, debit card was first introduced by HSBC Bank in 1987. With a debit card, when the cardholder makes a purchase, the money is withdrawn directly from the cardholder's bank account.

#### b) Credit card

The first universal credit card that could be used at different establishments was introduced in 1950 by Diners' Club, Inc. Credit card issuers set a line of credit (commonly called a credit limit) that cardholders can borrow. Cardholders can choose to repay the full amount due or at least the 'minimum amount' by the due date.



### **c) Smartcard**

To increase security and offer a brand-new service called smart cards, banks are adding chips to their existing magnetic stripe cards. Smart cards can store many times more information than magnetic stripe cards. They also perform many other functions and are more reliable and secure. They contain a wealth of personal data, including past medical and health history, banking information and preferences.

## **5.2 Internet Banking**

Internet banking, also known as online banking, virtual banking or e-banking, is an electronic payment system that allows customers of a bank or other financial institution to carry out a wide range of transactions. financial information via the financial institution's website. Online banking was first introduced in the early 1980s in New York, USA. ICICI Bank is the first Indian bank to offer online banking. The required information for online banking is the account number and the Indian Financial System Code (IFSC Code). The Indian Financial System Code is an 11-digit code that uniquely identifies a bank branch participating in any RBI-regulated funds transfer system. Beneficiary registration is required for transactions. A beneficiary is someone who receives a benefit from a particular entity or person.

## **5.3 National Electronic Funds Transfer (NEFT)**

One-to-one remittances are facilitated by the National Electronic Funds Transfer (NEFT), a national payment mechanism. The NEFT payment system was launched in 2005 to facilitate one-to-one fund transfers. Both individuals and corporates can use the NEFT payment mechanism. The NEFT system provides near real-time settlement of funds from one party to another by processing payments in batches at hourly intervals. There is no minimum or maximum limit on the amount of money that can be sent through NEFT. Through this system, any person, company or corporation having an account in any other bank branch across the country can electronically transfer money to any other person, company or corporation having an account at another bank branch in the country. NEFT was also made available 24x7 from December 2019.

## **5.4 Real-time Gross Settlement (RTGS)**

RTGS is defined as the continuous (real-time) settlement of individual (non-net) transfers. "Real-time" means the processing of instructions as they are received and not after; "gross settlement" means the settlement of transfer instructions on a one-to-one basis and not in batches as in NEFT. Once a payment is processed through the RTGS system, it cannot be reversed and is final and irrevocable. The RTGS system has been operational since 2004 and is used to settle inter-bank payments.

## **5.5 Immediate Payment Service (IMPS)**

IMPS offers instant 24/7 inter-bank electronic money transfer via mobile. IMPS is a powerful tool for instant money transfer to banks across India via mobile, internet and ATMs, which is not only secure but also economical from both financial and non-financial perspectives.

## **5.6 Electronic Clearing system (ECS)**

To improve customer service for banks, businesses, corporations, government agencies, etc. in collecting and receiving payments, ECS is an alternative method of payment transactions for utility bill payments such as telephone, electricity, insurance premiums, card payments, loan repayments, etc. The ECS system assists in the periodic and ongoing collection of customer bills. By "mandating" bank branches to debit customers' accounts and transfer the money to companies, ECS makes it easier for customers to subscribe to services and make routine and recurring payments. The minimum and maximum payments that can be made through the ECS collection system are both unlimited.

## **5.7 Mobile Banking**

Mobile banking is a service provided by a bank or other financial institution that allows its customers to perform various types of financial transactions remotely using a mobile device such as a mobile phone or tablet. Each bank offers its own mobile banking application for Android and iOS mobile platforms. A European company called PayBox, financed by Deutsche Bank, launched mobile banking in 1999. The cost of mobile devices has fallen dramatically and continues to do so. Network speeds are much better than they used to be, and data plans aren't as expensive. All these changes have provided the raw material for the growth of mobile banking. People who use computers to access online banking are switching to mobile banking because of its ease of use and quick access. Mobile banking transactions can include checking account balances and a list of recent transactions, paying electronic bills, and transferring funds between customer or other accounts. Example - SBI Yono App for State Bank of India, iMobile Pay App for ICICI Bank, Kotak 811 App for Kotak Mahindra Bank etc.



### 5.8 Digital Wallets

To carry money in digital form, use a digital wallet. A digital wallet application must be linked to a credit or debit card before money can be sent online to a mobile wallet. It is possible to pay for items using a smartphone, tablet, smartwatch, digital wallet device or digital wallet system instead of a real plastic card. Digital wallets on mobile devices are called mobile wallets. Most banks have their own e-wallets, but some are run by independent companies. Examples Paytm, mRuppee, Freecharge, Mobikwik, itz Cash, Citrus Pay, ICICI Pockets, SpeedPay, etc.

### 5.9 Unified Payments Interface (UPI)

To promote a cashless and mobile banking culture, the National Payments Corporation of India (NPCI), a government-owned company, has launched the Unified Payment Interface (UPI), a new payment interface. The Unified Payments Interface (UPI) allows users of different bank accounts to access different financial services, such as merchant payments and money transfers, through a single mobile application. Users don't even have to remember or enter a bank user ID or password to connect all their bank accounts to a single UPI payments application which is available for both Android and iOS mobile platforms. The recipient's Virtual Payment Address (VPA) and Mobile Banking Personal Identification Number (MPIN) are required information for UPI-based transactions. Money can be sent and received by sharing the VPA. National Payments Corporation of India (NPCI) has launched a USSD service called '\*99# service' to handle UPI services across banks in India. The innovative \*99# payment service operates on the Unstructured Supplementary Service Data (USSD) channel. This service allows mobile banking using basic mobile phones. Users can avail the banking services by dialing \*99# from their registered mobile number and transact money through an interactive menu displayed on the mobile screen. NPCI offers various services under the \*99# service include, sending and receiving inter-bank account to account funds, balance enquiry, setting/changing UPI PIN among host of other services.

### 5.10 Aadhaar Enabled Payment Service (AEPS)

Through the use of micro-PLCs, the AEPS system manages Aadhaar online authentication and allows Aadhaar-enabled bank accounts (AEBAs) to function in banking mode at any time. The National Payments Corporation of India (NPCI) oversees the system. You can withdraw money from a bank account using the Aadhaar-enabled payment system. You do not need to use your debit card or sign anything to use this receiving system. The Aadhaar-enabled payment method also does not require you to visit a bank branch. The following details are required for AEPS transactions.

1. Aadhar Number
2. Issuing bank identification number (IIN) or name
3. Fingerprint

### 5.11 Neo Banks

A neo bank is a type of digital-only bank that operates entirely through mobile or online platforms and does not have physical branches. These banks offer a wide range of financial services, including personal and business banking, credit and debit cards, loans, and investment services. They use technology to provide a seamless, user-friendly experience and often offer innovative features like real-time payments and spending analysis. Neo Banks have emerged as a response to the growing demand for more convenient and accessible banking services. By leveraging technology, they can provide a better customer experience, lower costs, and a more flexible product offering than traditional banks. Additionally, they can also offer customers more control over their finances through features like budgeting tools and instant access to account information. Some popular Neo Banks include Jupiter, Fi Money, InstaPay, and Razorpay. While they are not as well-established as traditional banks, they are growing in popularity due to their ease of use and the value they offer to customers.

### 5.12 E-Rupi (CBDC)

The e-rupee (CBDC) is a term used to refer to a digital form of the Indian Rupee (INR) that is issued by the Reserve Bank of India (RBI). CBDC stands for Central Bank Digital Currency. A CBDC is a digital version of a country's traditional fiat currency that is issued and backed by the central bank. It is designed to function as a digital equivalent of physical cash and operates in a decentralized manner, which means it can be used directly by individuals and businesses without intermediaries. The RBI has been exploring the possibility of issuing a digital Rupee for some time and has formed a working group to study the feasibility and implications of issuing a CBDC in India. The main objectives of a CBDC in India would be to increase financial inclusion, improve the efficiency and security of financial



transactions, and reduce the risks associated with cash. As part of its pilot programme, e-RUPI was used to settle 2.75 billion Indian rupees (\$33.29 million) of secondary market transactions in Indian government bonds.

## 6. METHODOLOGY:

The researcher chose colleges in Chennai, Tamil Nadu, for the purpose of the study. There are many government and private affiliated colleges. Approximately, there are more than 800 colleges available in the city. For the present research, we have used a quantitative approach with a closed-ended questionnaire. After collecting the data through a questionnaire, the researcher carried out a systematic analysis.

### 6.1 Sample collection:

The randomly selected sample is to be taken from the population irrespective of gender, stream, locality, age, caste, etc. and collected from colleges. The link to the questionnaire was distributed randomly among the students. The data collection was planned and conducted in such a way that its acceptability was not compromised.

### 6.2 Sample size:

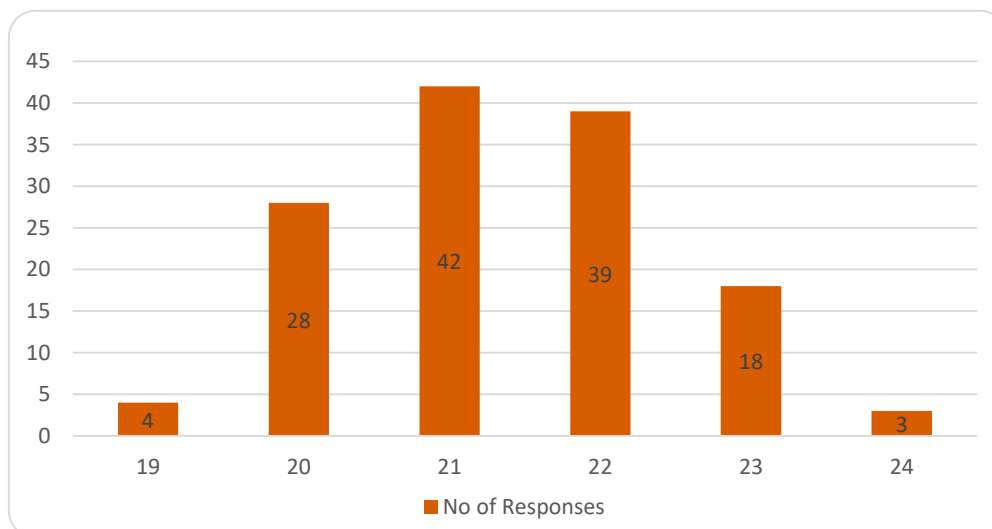
We distributed links to self-made questionnaires to students belonging to colleges in Chennai, after which we had to collect the responses given by the students. A total of 134 responses were collected from students with diverse backgrounds such as gender, caste, locality, stream, etc.

### 6.3 Analysis of data:

It is possible due to the collection of responses given by students. It was done using a self-made questionnaire in which students from Chennai colleges responded with degrees of agreement and disagreement, and the analysis was as follows:

#### Age of the Respondents:

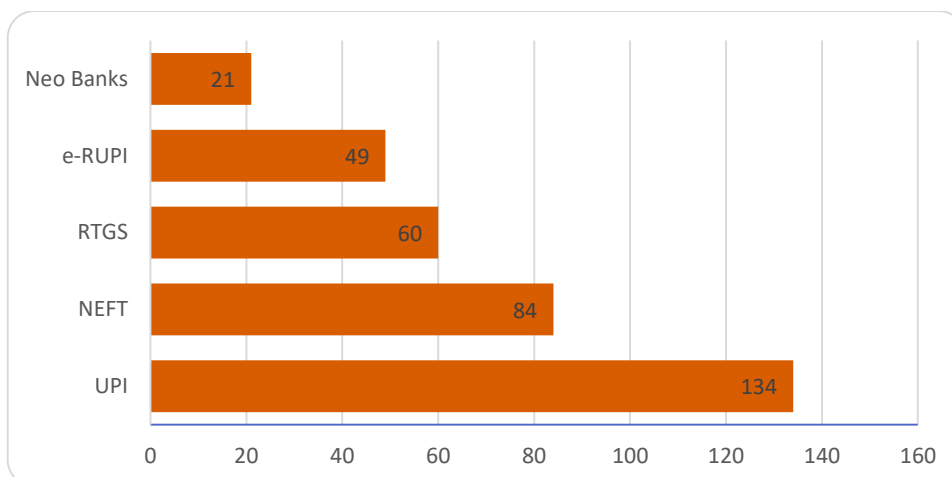
All respondents had to be under the age of 24. The number of responses in the age group 21 is the highest with 31.3% of the total population and 24 is the lowest with only 3 responses representing only 2.2% of the population (Fig-1).



**Fig-1 Age of the Respondents**

#### Awareness of Digital Banking Terms among Gen Z:

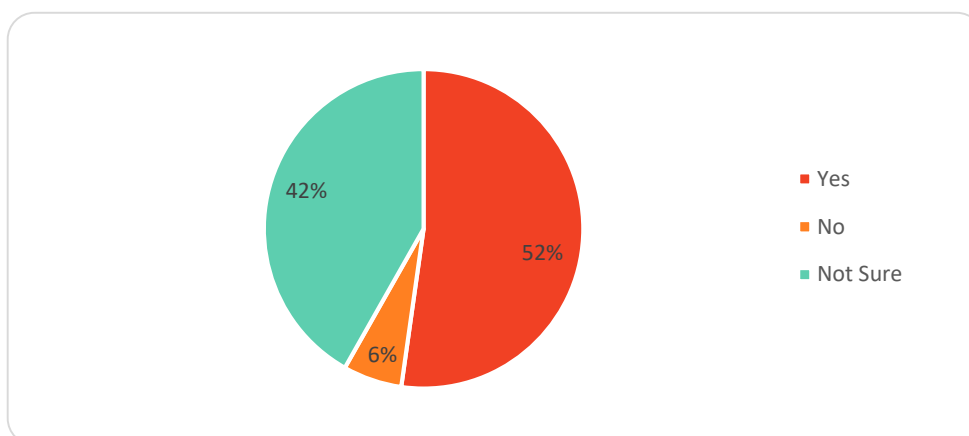
UPI is the most popular term among digital nomads with 100% of respondents knowing the term, NEFT is the second most popular, followed by RTGS and e-RUPI, and Neo Bank is the least popular with only 21(15.6%) respondents (Fig-2).



**Fig-2 Awareness of Digital Banking Terms among Gen Z**

**Awareness about e-RUPI:**

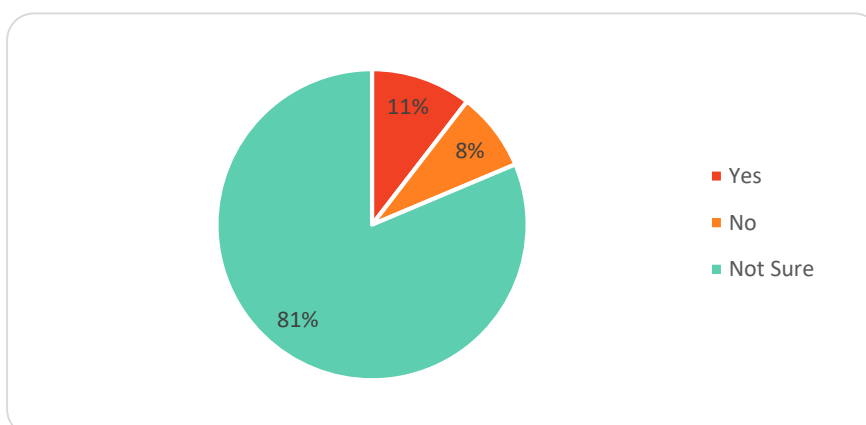
The question was whether they thought e-RUPI was good for the digital revolution and the Indian economy and the answer was mostly positive with 70 responses (52.2%) agreeing that it will boost the economy and 56 responses (41.7%) not sure and 8 responses (4.4%) outright denying as positive effects of e-RUPI (Fig-3).



**Fig-3 Awareness about e-RUPI**

**Trust in Neo-Banks:**

We talked about Neo-Banks earlier (Ref – 5.11) and Fig-4 shows how much the Gen Z trust the fully digital banks (Neo-Banks) with only 14 respondents (10.4%) trusting it and 11 respondents (8.2%) had no trust on Neo-Banks and rest 109 respondents (74.6%) were not sure to trust Neo-Bank because it's still a new concept to banking (Fig-4).



**Fig-4 Gen-Z Trust in Neo-Banks**



## 7. RESULTS:

While Gen Z is more engaged with digital payments and more aware of the whole process. Gen Z is not aware of the newly coined terms like "Neo-Banks" and "e-RUPI." It is seen that they are less confident in new platforms like Neo-Banks, with only 11% trusting it and 81% not at all sure, and e-RUPI is not far behind, with only 52% thinking that it will help the Indian economy and the Digital India dream. UPI has been a hit among all age groups, especially among Gen Z, with many respondents being aware of what UPI is because of its simplicity, lack of service charge, and many awareness schemes run by the government like the PMGDISHA.

## 8. CONCLUSION:

In conclusion, digital payments are playing an increasingly important role in the Indian economy. The government's push for a digital economy, as well as the growth of technology and internet penetration, has fueled the growth of digital payments in India. While there are still challenges to be addressed, the growth of digital payments presents significant opportunities for financial inclusion, improved efficiency, and economic growth. The widespread adoption of digital payments has the potential to significantly improve the efficiency, security, and accessibility of financial transactions and contribute to economic growth and development. By making it easier for people to access financial services and participate in the formal economy, digital payments can play a key role in promoting financial stability and reducing poverty.

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