



## Sansad TV Vishesh: Digital Payment Revolution

**For prelims:** [Unified Payments Interface \(UPI\)](#), [digital transaction](#), [Inclusive growth](#), [Digital payments](#), [Bharat Interface for Money \(BHIM\)](#), [UPI 123PAY](#), [Jan Dhan bank accounts](#) [National Payments Corporation of India \(NPCI\)](#) [Goods and Services Tax \(GST\)](#), [Digital wallet](#), [Paytm](#), [Direct benefit transfer \(DBT\) schemes](#), [Reserve Bank of India \(RBI\)](#), [Internet of Things \(IoT\)](#), [Payment and Settlement Systems \(PSS\) Act 2007](#), [Infrastructure](#), [fiscal deficit](#), [Foreign reserves](#), [UPI \(Unified Payments Interface\)](#)

**For mains:** Significance and challenges of Digital payment for Indian economy.

### Why in News?

- Recently, India has witnessed a staggering surge in digital transactions with the phenomenal success of the [Unified Payments Interface \(UPI\)](#).
- During the fiscal year of 2023, India witnessed **over 100 billion digital transactions** occurring nationwide.

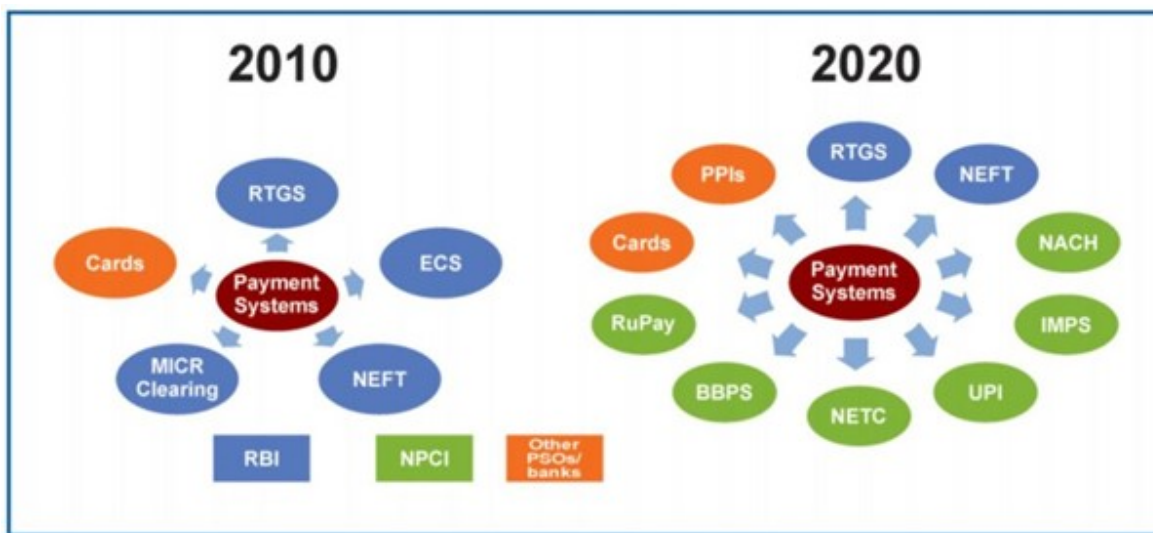
### What are the Key Highlights?

- India accounts for **46% of** all [Digital payments](#) in the world and UPI transactions now account for 80% of all digital payments in India.
- In 2012-13, there were **162 crore digital payments**, this number has grown to 14,726 crore in 2023-24 till February.
- In 2022, the value of instant digital transactions was four times higher than the combined transactions in the United States, Britain, Germany, and France combined.

### What is Digital Payment?

A digital payment system, also known as electronic payment, refers to the transfer of funds from one account to another through digital devices like **mobile phones, POS terminals, or computers**.

- Varieties of Digital Payment Modes include:
  - [Unified Payments Interface \(UPI\)](#)
  - [Bharat Interface for Money \(BHIM\)](#)
  - [UPI 123PAY](#)
  - [UPI Lite](#)
  - [Cards \(e.g., RuPay Debit Cards\)](#)
  - [Immediate Payment Services \(IMPS\)](#)
  - [Aadhaar Enabled Payment System \(AePS\)](#)



## What are the Components of Digital Payments?

### ▪ JAM Trinity:

- **Jan Dhan Accounts:** Over 46 crore [Jan Dhan bank accounts](#) have been opened, with significant representation from women and rural areas.
- **Aadhar:** Nearly all adults possess a biometric identification number with over **1.3 billion IDs issued**.
- **Mobile:** The accessibility of mobile phones has increased due to a significant drop in data costs since 2016.

### ▪ Unified Payments Interface (UPI):

- Launched in **2016 by the [National Payments Corporation of India \(NPCI\)](#)**, with 21 member banks, UPI is a public-private partnership that provides an interoperable platform for direct payments linked to bank accounts.
- An advanced version of Immediate Payment Service (IMPS), UPI manages multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood.

## About NPCI

- The [National Payments Corporation of India \(NPCI\)](#) (a not-for-profit company) is an initiative taken by the [Reserve Bank of India \(RBI\)](#) and the [Indian Bank's Association \(IBA\)](#) to operate retail payments and settlement systems in India.
- This organisation was founded in the year 2008 under the [Payment and Settlement Systems \(PSS\) Act 2007](#)
- **NPCI International Private Ltd (NIPL):** NIPL is the subsidiary of NPCI to popularise domestic payment technologies such as UPI and RuPay abroad and co-create payment technologies with other countries.

Payment Ecosystem

Consumer - Who initiates the transactions.

Merchants- Who accept the transactions.

Acquirers-The bank of Merchants.

Issuers -The bank for consumers.

Linking all of these is Networks like Visa, Mastercard, etc.



# NPCI'S SYSTEMS

- National Financial Switch (ATMs)
- National Automated Clearing House (NACH)
- CTS Cheque Clearing
- Immediate Payment Systems (IMPS)
- RuPay Card
- Aadhaar Enabled Payment System (AEPS)
- Bharat Bill Payment System (BBPS)
- Unified Payments Interface (UPI)



## What is the Significance of Digital Payment?

- **Enhanced Convenience:** Digital payments have made daily life more convenient for individuals.
- **Financial Inclusion:** It has expanded access to banking services, including credit and savings, to millions of previously unbanked Indians.
- **Last Mile Access:** Digital payments have extended the reach of government programs and tax collection, ensuring broader participation.
- **Encouragement of Entrepreneurship:** The [digital infrastructure](#) serves as a foundation for innovation, allowing entrepreneurs to innovate at a low cost.
- **Behavioural Shift:** There has been a significant change in behavior, with more people

transitioning from a cash-driven economy to digital transactions.

- **Decreased reliance on cash:** Embracing a cashless economy promotes transparency and curtails the circulation of illicit funds.
- **Augmented tax earnings:** The uptick in digital transactions facilitates more efficient income tracking and bolsters tax collection efforts.

## What are the Initiatives Taken for Digital Payments in India?

- **Unified Payments Interface (UPI):** The introduction of UPI revolutionised digital payments in India by enabling instant and seamless fund transfers between bank accounts using smartphones.
- **RuPay Cards:** It is an indigenous card payment network launched by NPCI, which provides a domestic alternative to international card schemes.
  - It aims to promote digital payments and financial inclusion by offering affordable payment solutions.
- **GST Network (GSTN):** It facilitates digital payments by providing a unified platform for taxpayers to file their [Goods and Services Tax \(GST\)](#) returns and make tax payments online.
- **Rise of Digital Wallets:** [Digital wallet](#) services like [Paytm](#), [PhonePe](#), and [Google Pay](#) have gained immense popularity in India, offering users a convenient way to store money digitally and make payments for a wide range of goods and services.
- **Government Subsidies and Benefits:** [Direct benefit transfer \(DBT\) schemes](#), where government subsidies and welfare payments are transferred directly to beneficiaries' bank accounts, have encouraged people to open bank accounts and adopt digital payment methods.
- **Supportive Regulatory Environment:** Regulatory reforms and incentives by the [Reserve Bank of India \(RBI\)](#) and other regulatory bodies have created a conducive environment for the growth of digital payments, ensuring security, interoperability, and consumer protection

## What are the Challenges for Digital Payment in India?

- **Digital Infrastructure:** Despite significant improvements, access to **reliable internet connectivity and electricity remains uneven**, especially in rural areas, hampering the adoption of digital technologies.
- **Digital Literacy:** A large portion of the population lacks basic **digital literacy skills**, limiting their ability to use digital tools effectively and securely.
- **Cybersecurity Concerns:** With the increase in digital transactions, cybersecurity threats such as **data breaches, identity theft, and financial fraud** have become more prevalent, posing risks to individuals and businesses.
- **Privacy Issues:** There are concerns about the privacy and **protection of personal data** in the digital realm, particularly with the proliferation of social media platforms and digital services collecting vast amounts of user information.
- **Digital Divide:** Disparities in access to digital infrastructure, education, and economic opportunities exacerbate the digital divide **between urban and rural areas**, as well as among different socio-economic groups.

## Way Forward

- **RBI's Payments Vision 2025:** Emphasizing the **5Is for Digital Payment** Landscape- integrity, inclusion, innovation, institutionalization, and internationalization - essential for shaping the digital payment ecosystem.
- **Enhancing Digital Literacy for Fraud Awareness:** Digital education aims to equip citizens with knowledge about potential fraudulent practices encountered during digital transactions.
- **Harnessing Technology:** Develop a framework for [Internet of Things \(IoT\)](#) based payment systems, enabling customers to conduct transactions through connected devices beyond traditional smartphones and tablets.
- **Reviewing Legal and Institutional Infrastructure for Payments:** The RBI is initiating a comprehensive review of the [Payment and Settlement Systems \(PSS\) Act 2007](#) to align it with India's evolving digital payment landscape.
- **Driving Innovation and Regulatory Strength:** Impact of Legislative Initiatives such as the new [Digital Personal Data Protection Bill, 2022](#) and [Digital India Act, 2023](#) are poised to

stimulate growth and foster cutting-edge innovation in digital payments, both domestically and globally.

# DIGITAL PAYMENT SYSTEMS IN INDIA

A digital or electronic payment refers to transferring money from one payment account to another using a digital device or channel (bank transfers, mobile money, QR codes etc.)



## Payment Systems by NPCI

National Payment Corporation of India (NPCI) is an umbrella entity for retail payment (Payment and Settlement Systems Act, 2007).

### Immediate Payment Service (IMPS)

- ↳ For retail customer
- ↳ **Limit:** ₹1-5 lacs (Fees+GST)
- ↳ 24/7 (Instant Settlement)
- ↳ **Provider:** Banks, PPI, Mobile Wallet Companies

### Unified Payment Interface (UPI)

- ↳ Technology for digital payment apps based on IMPS
- ↳ Push and Pull Transaction
- ↳ Also adopted by other countries like France, UAE, Singapore
- ↳ **UPI-Lite+NFC:** For offline payment
- ↳ **BHIM-UPI:** Money transfer app

### Rupay Card Payment Gateway (RuPay)

- ↳ **Works in 3 Channels:** ATM, Point of Sale Device, Online Portals
- ↳ Given free with PMJDY
- ↳ Adopted in foreign countries as well (e.g. Mauritius)

### Miscellaneous Initiatives

- ↳ Bharat Bill Payment System (BBPS) & Unified Presentment Management System (UPMS)
- ↳ National Electronic Toll Collection (NETC)
- ↳ PAI Chatbot
- ↳ Bharat QR
- ↳ e-RUPI
- ↳ Aadhaar Payment Bridge (APB) System
- ↳ Aadhaar enabled Payment System (AePS)

## RBI's Centralised Payment System (CPS)

### Real Time Gross Settlement (RTGS)

- ↳ For high value transactions
- ↳ **Lower Limit:** ₹2 Lacs (No Upper ceiling) (No fees)
- ↳ 24/7 (Instant Settlement)
- ↳ Provided by banking & non-banking entities

### Lightweight Payment and Settlement System (LPSS)

- ↳ RBI's emergency alternative to NEFT/RTGS
- ↳ Temporary, portable solution

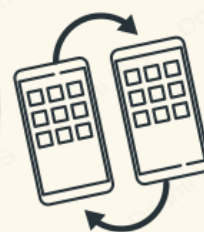
### National Electronic Fund Transfer (NEFT)

- ↳ For mid-range transactions
- ↳ No limit imposed by RBI (No fees)
- ↳ 24/7 (Settles net amount between banks @ 30 minutes intervals)
- ↳ Provided by banking & non-banking entities



### Digital Payment Regulatory Bodies

- ↳ Digital Transactions Ombudsman
- ↳ Board for Regulation & Supervision of Payment & Settlements Systems (BPSS)



## UPSC Civil Services Examination, Previous Year Questions (PYQs)

### Prelims

**Q Regarding 'DigiLocker', sometimes seen in the news, which of the following statements is/are correct? (2016)**

1. It is a digital locker system offered by the Government under Digital India Programme.
2. It allows you to access your e-documents irrespective of your physical location.

**Select the correct answer using the code given below:**

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

**Ans: C**

### Mains

**Q.** The emergence of the Fourth Industrial Revolution (Digital Revolution) has initiated e-Governance as an integral part of government". Discuss. **(2020)**

PDF Reference URL: <https://www.drishtiias.com/printpdf/sansad-tv-vishesh-digital-payment-revolution>

