



# India Digital Payments Report

2020



We witnessed digital payments taking center stage across the globe in 2020. In India, new and old payment channels have catered to market needs ensuring long-term growth not only in terms of on-boarding new merchants and customers in the payments ecosystem but also increasing the number of digital transactions. New payment systems like FASTag and Bharat BillPay matured in the previous year while payment gateways continued to be the reliable partners to facilitate end to end payments for consumers and merchants alike.

In 2020, we also witnessed key developments from the regulatory standpoint such as the creation and operationalization of the Payments Infrastructure Development Fund, a pilot scheme for small value payments in offline mode, Streamlining QR Code infrastructure, setting up of a Self-Regulatory Organisation for Payment System Operators among others; these will lead to sustainable positive changes.

For Worldline, 2020 was a landmark year as we successfully completed the acquisition of Ingenico and emerged as the largest merchant acquirer and payment processor in Europe and number 4 globally. We are now able to offer our banking and merchant partners a comprehensive and enhanced range of innovative solutions in online payments, physical merchant acquiring and transaction processing services among others.

As we conclude Q1 2021 and continue to grow with strong momentum, it is useful for us to take a look at how digital payment instruments fared in the previous year.

This annual report gives an in-depth look at digital transactions in India in 2020 as well as insights on transactions that were processed on our network. In addition, we give our perspective on how consumers' payment experience will transform in the near future and our thoughts on the New Umbrella Entity for Retail Payments initiative.

Happy Reading!

**Deepak Chandnani**  
Managing Director, Worldline South Asia & Middle East

**Worldline**

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# HOW CONSUMERS' PAYMENT EXPERIENCE WILL TRANSFORM IN NEAR FUTURE

Consumer spending pattern evolved significantly during the previous year across all demographics. The real manifestation of cashless, paperless and seamless digital transactions is now led by mobile and internet based payments, thus fueling the growth for digital commerce. Nevertheless, digital payments across physical touchpoints have seen remarkable progress thanks to innovation and backing from the ecosystem. Retail merchants are registering high demand to facilitate contactless payments as consumers now prefer the convenience of making payments on-the-go via cards or mobile. The fact that RBI has raised contactless limit to INR 5000 from INR 2000 is a testament that ecosystem is ready to widen its scope to empower plethora of new merchant groups that can offer high-ticket size products to customers. Simultaneously, UPI and QR based payments are on the rise while innovations around wearables, tokenisation, SoftPOS among others are gearing up to address varied needs of customers as well as merchants.

As we continue to combat pandemic and live a new-normal life, we are certain that newer payment trends will emerge to further enhance the growing payments landscape in years to come. Some of the key form factors that will add value to the payment infrastructure in online space and transform the way we make payments today are highlighted below.

**Recurring payments:** Keeping in view the changing payment needs, RBI had issued a framework for processing of e-mandates on recurring online transactions for cards, wallets and UPI. Be it entertainment, education, consumer durables or investments, consumers now prefer to automate their payments and bills by enabling auto debits. Recurring payment delivers convenient and transparent experience to consumers for paying their utility bills, subscriptions, mutual fund investments, insurance premium payment and host of other services. Recently, in order to prevent any inconvenience to the customers, Reserve Bank of India extended the timeline for stakeholders to migrate processing of recurring online transactions with Additional Factor of Authentication (AFA) till September 30, 2021. As majority of Indians are falling under the ambit of formal banking system, they are able to leverage financial services and hence; enabling recurring payments across demographics is becoming the need of the hour.

**International e-commerce:** While merchants are willing to take their products and services beyond national boundaries and are eager to explore new markets to boost sales and revenue, consumers prefer to choose from wide range of international products and make payment in local currencies. There is a huge scope to transform customer experience in cross border payments and technology solution providers are optimising processes in this arena to offer greater benefits to users.

**Payment orchestration:** With the rising payment methods at customers' disposal, it has become essential for merchants to provide multiple payment options while ensuring seamless UX. Payment orchestration plays a crucial role to equip customers with new age payment methods and at the same time, helps merchants to facilitate multiple payment methods under single platform. It helps both the parties by providing API integration and enabling seamless checkout experience. In addition, value adds like aggregating and processing data to provide real time analytics and reconciliation services addresses key pain points faced by merchants today.

At the end, consumers will benefit from innovation solutions that will be simple, seamless and secure and this will drive a change in behaviours to using less cash and more digital.

# WHY HAVING A NEW UMBRELLA ENTITY FOR RETAIL PAYMENTS IS A GOOD IDEA

In August 2020, the Reserve Bank of India (RBI) announced the framework for companies to apply to set up a new umbrella entity (NUE) with the objective to “to set-up pan-India umbrella entity / entities focussing on retail payment systems”. In the notification, the RBI outlined the scope of activities of the NUE; it seeks to create a new network (like Visa, NPCI, MasterCard etc.) or something akin to that which will run a payment network end-to-end which will include but not limited to ATMs, POS terminals, Aadhaar payments, remittance services, new payment technologies.

The pre-cursor to this notification was a RBI policy statement in Jun 2018 which stated “with the maturing of the retail payments market, it is important that the concentration risk in retail payment systems is minimized from a financial stability perspective. The Reserve Bank plans to encourage more players to participate in and promote pan-India payment platforms so as to give a fillip to innovation and competition in the sector.” This was followed by a public consultation paper in January 2019 titled “Authorisation of New Retail Payment Systems”.

The deadline to apply was extended from February 26 to March 31 and as of now 6 consortiums have applied. They include most of the banks, several fintechs and companies such as Tata, Amazon, Google, Jio among others.

The January 2019 paper specifically mentions NPCI having a high concentration of retail payment electronic transactions (it was about 65% in volume in 2020) and apart from several advantages, one of the disadvantages mentioned was ‘Systemic and operational risk’ where a “possibility of single point of failure and also makes the entity too big to fail. Absence of redundancy and fall back arrangements may impact continued availability.” Commentators have said that a NUE is being set up as competition to NPCI but that is not the case; it is being set up with the express purpose of reducing concentration risk which is necessary for a country like India where digital payments are increasing at a fast clip. The function of any regulator globally is to reduce concentration risk in key sectors and that is precisely what the RBI is doing.

A NUE is also likely to spur payment innovations across the board that will benefit buyers, sellers, users, institutions alike. A look at the companies participating shows that there are those with deep pockets and those with a long-term horizon. Since this will be allowed to be a for-profit entity – NPCI is a not-for-profit – companies will be incentivized to spend considerable sums of money on new innovations.

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[https://rbi.org.in/Scripts/BS\\_PressReleaseDisplay.aspx?prid=44126](https://rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=44126)

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# 2020: A year in review

We have analysed transactions available in public databases as well as transactions processed by us in 2020 (January – December) and derived some unique insights.



# DIGITAL PAYMENTS

## LANDSCAPE

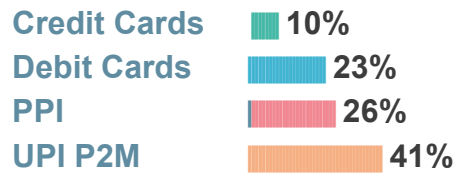
In 2020, combined digital payments volume and value through Cards, PPI and UPI P2M\* was 18.86 billion and INR 21.89 trillion respectively.

Out of these four payment products, UPI remained the most preferred payment mode among consumers with a P2M market share volume of 41% market share while its share of the value of transactions was 23%.

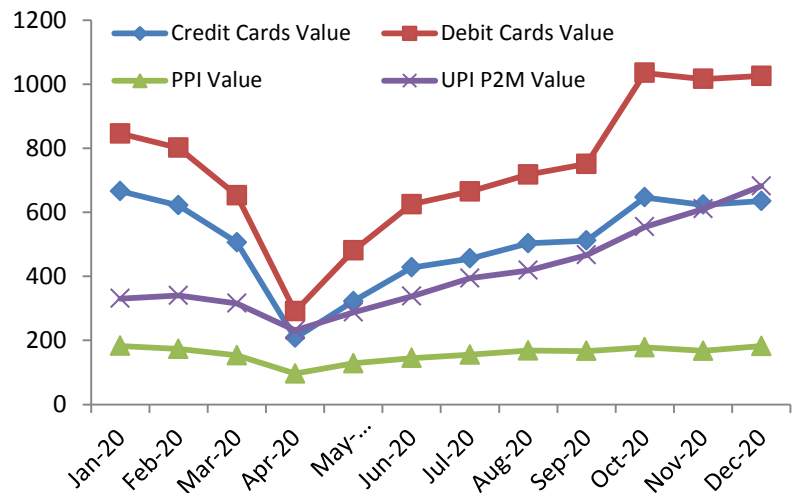
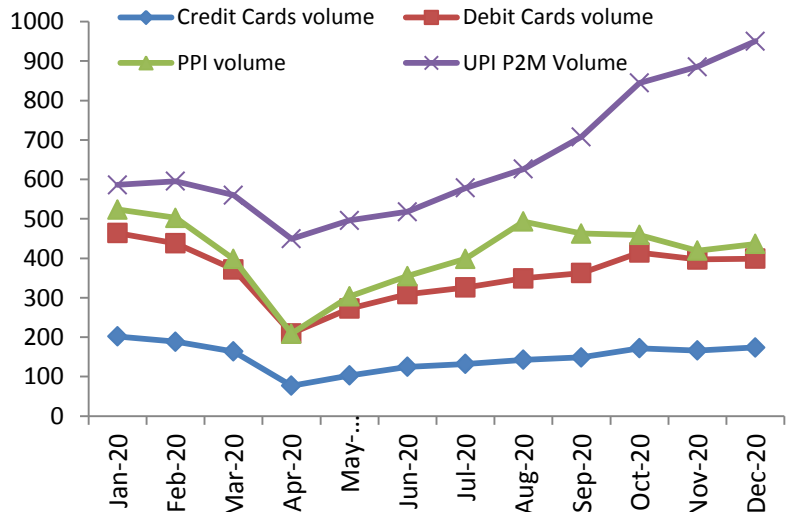
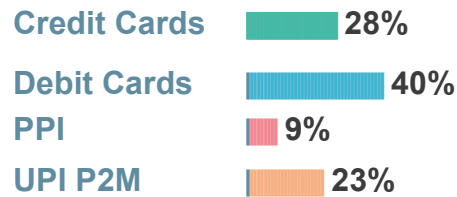
As far as PPIs are concerned, the combined volume of prepaid cards and wallets covered 26% share in volume and 9% in value.

What is evident though is that cards still dominate payments. Credit and Debit card transactions accounted for a good chunk of the pie with 10% and 23% share in volume respectively and in value terms, they accounted for 28% for credit cards and 40% for debit cards.

### VOLUME



### VALUE



Source: RBI, NPCI

UPI P2M transactions for Jan, Feb and March 2020 has been considered as 44.92 per cent of total UPI volume and 15.29 per cent of total UPI value – replicating April 2020 percentages.



# MERCHANT

# ACQUIRING

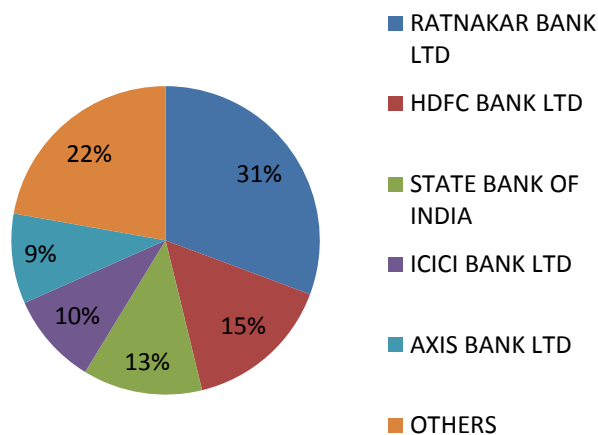
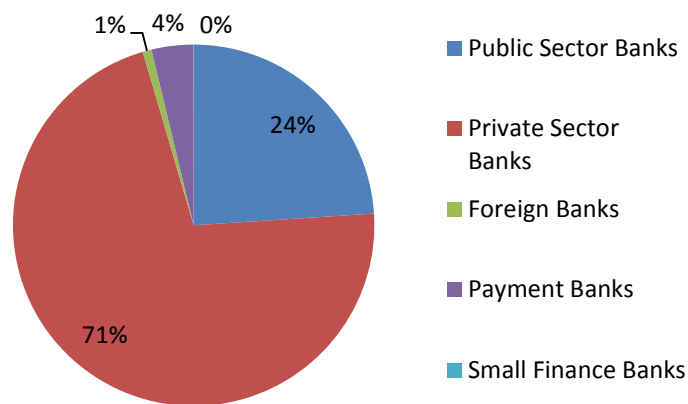
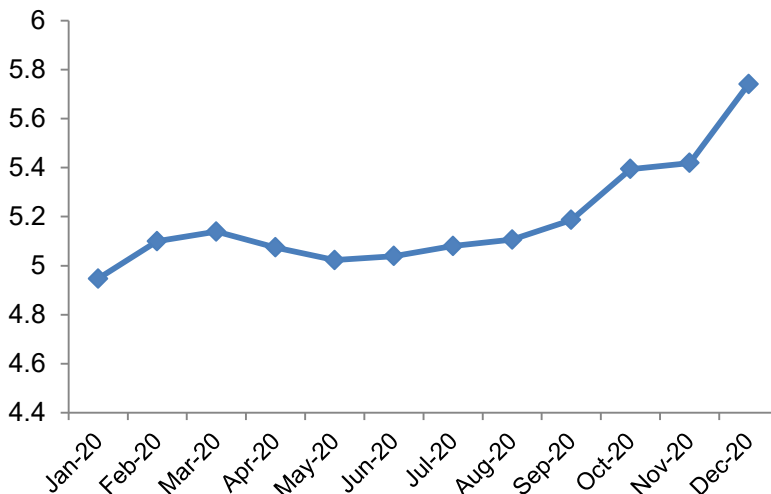
Number of POS terminals deployed witnessed an all-time high figure of 5.74 million in December 2020. Terminals deployed by merchant acquiring banks increased from 4.98 million in December 2019 to 5.74 million in December 2020, a 15% YoY increase.

Private sector banks represented about 71 per cent of the POS terminal market, up by 2% since Q3 2020 (Oct-Nov 2020) while public sector banks accounted for 24%. Payments banks accounted for 4% market share and foreign banks remained constant at 1%.

RBL Bank, HDFC Bank, State Bank of India, ICICI Bank and Axis bank are the top 5 merchant acquiring banks to deploy POS terminals in 2020.

In the merchant acquiring space innovations like SoftPOS is set to empower millions of small and micro merchants. It has emerged as a low acceptance solution that transforms a merchant mobile into a POS terminal and enables them to accept multiple payment modes.

POS Terminals (million)





# WORLDLINE

# INSIGHTS

Transactions processed at physical touch points such as grocery stores, fuel stations, clothing & apparel, pharmacies, restaurants and specialty retail together accounted for 80% in volume and 60% in value.

In the online space, financial services, government institutions and education sector accounted for about 20% in volume and 75% in value. Gaming, ecommerce (shopping for goods and services) and utility services contributed to about 80% in volume and over 20% in value.

## **Top 10 states with the highest transactions at physical touch points in 2020 for Worldline India:**

*Maharashtra, Karnataka, Tamil Nadu, Kerala, Andhra Pradesh, Delhi, Uttar Pradesh, Gujarat, West Bengal and Telangana*

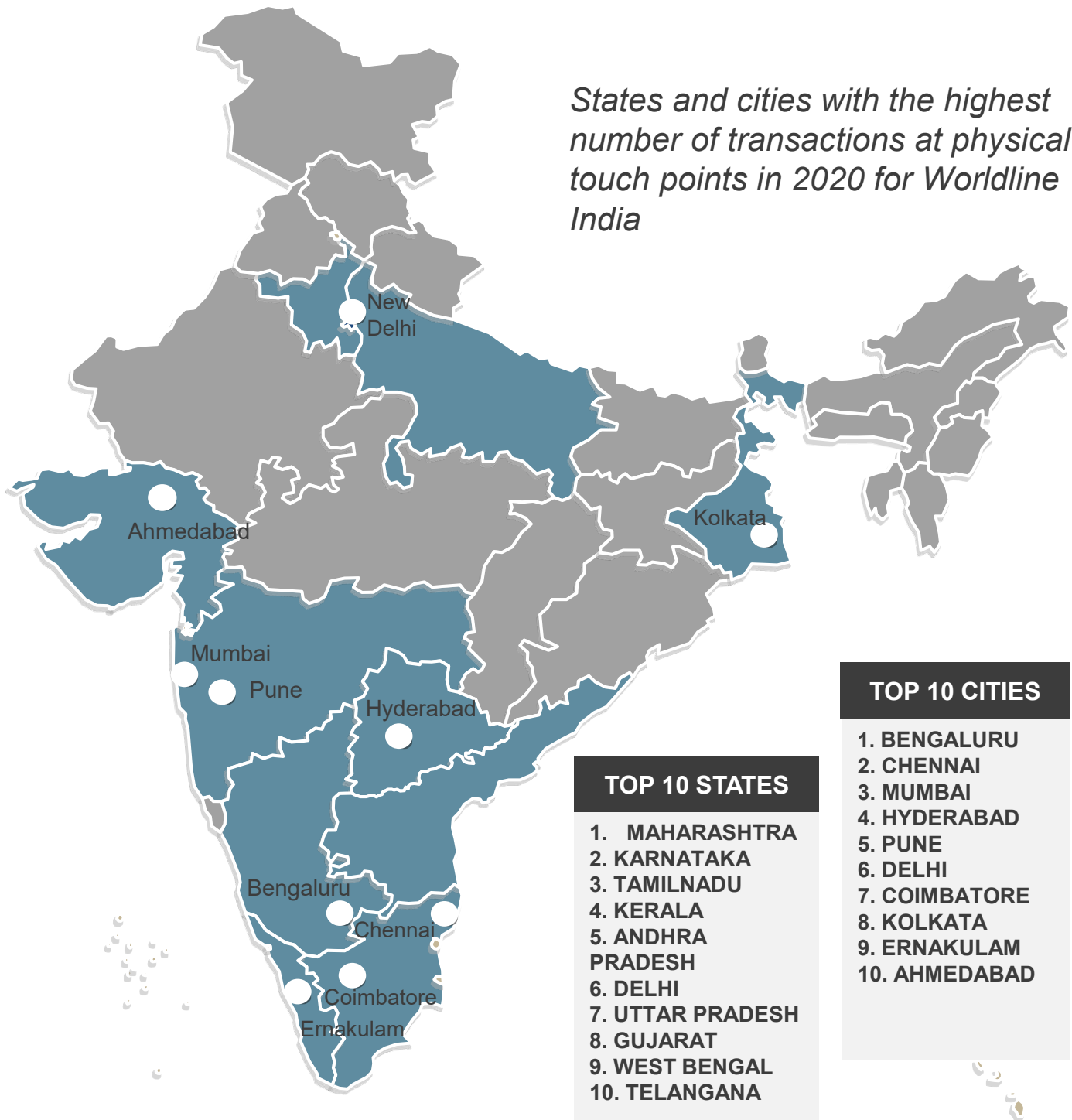
## **Top 10 cities with the highest number of transactions at physical touch points in 2020 for Worldline India:**

*Bengaluru, Chennai, Mumbai, Hyderabad, Pune, Delhi, Coimbatore, Kolkata, Ernakulam and Ahmedabad*

**WORLDLINE**

**INSIGHTS**

*States and cities with the highest number of transactions at physical touch points in 2020 for Worldline India*



**TOP 10 STATES**

1. MAHARASHTRA
2. KARNATAKA
3. TAMILNADU
4. KERALA
5. ANDHRA PRADESH
6. DELHI
7. UTTAR PRADESH
8. GUJARAT
9. WEST BENGAL
10. TELANGANA

**TOP 10 CITIES**

1. BENGALURU
2. CHENNAI
3. MUMBAI
4. HYDERABAD
5. PUNE
6. DELHI
7. COIMBATORE
8. KOLKATA
9. ERNAKULAM
10. AHMEDABAD

# CARD

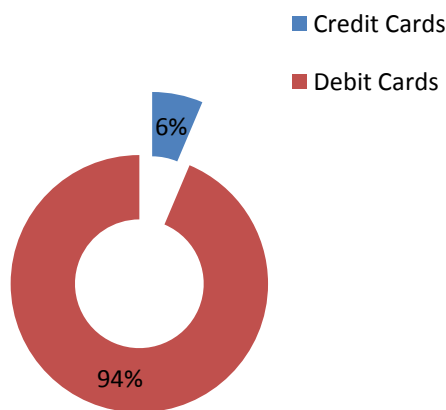
# ISSUANCE

The total number of cards in circulation stood at 946.81 million as of December 2020.

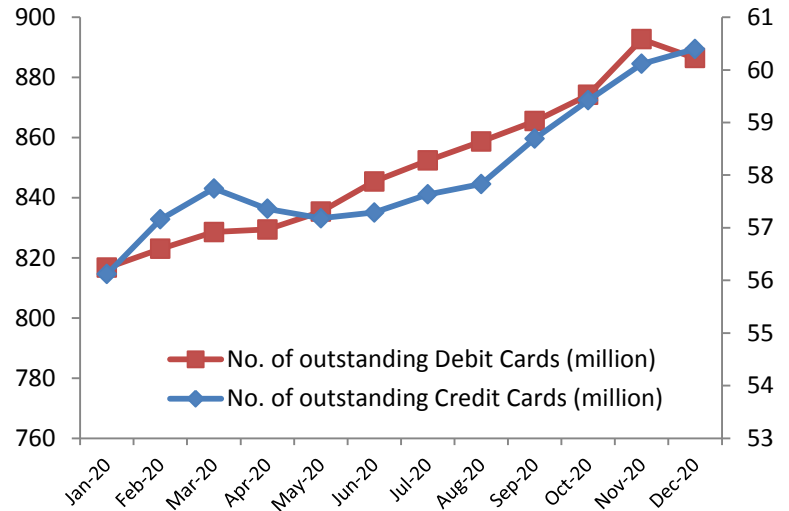
Outstanding credit cards increased by 9% from 55.33 million in December 2019 to 60.39 million in December 2020 while outstanding debit cards increased by 10% from 805.32 million to 886.41 million during the same period.

Out of the total cards in circulation, debit cards accounted for 94% while credit cards represented a 6% market share.

Interestingly, 15 banks account for 95% of credit cards issued while 40 banks account for 99% of debit cards issued.



## No. of outstanding Cards

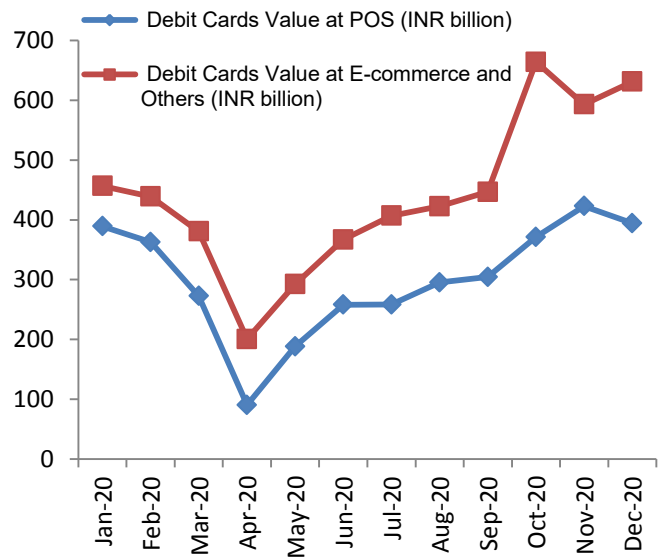
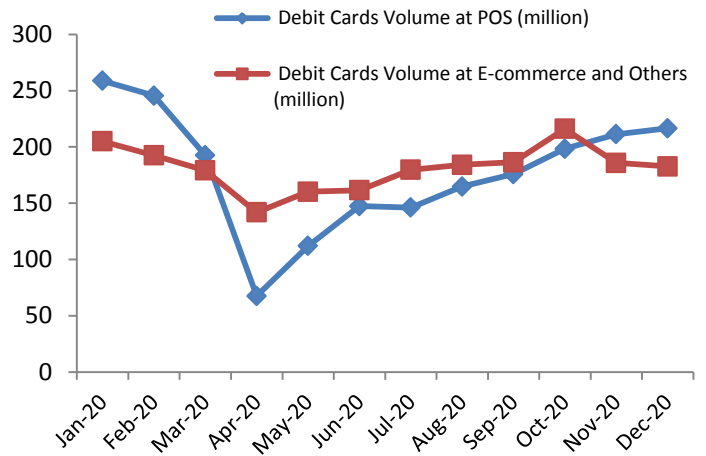
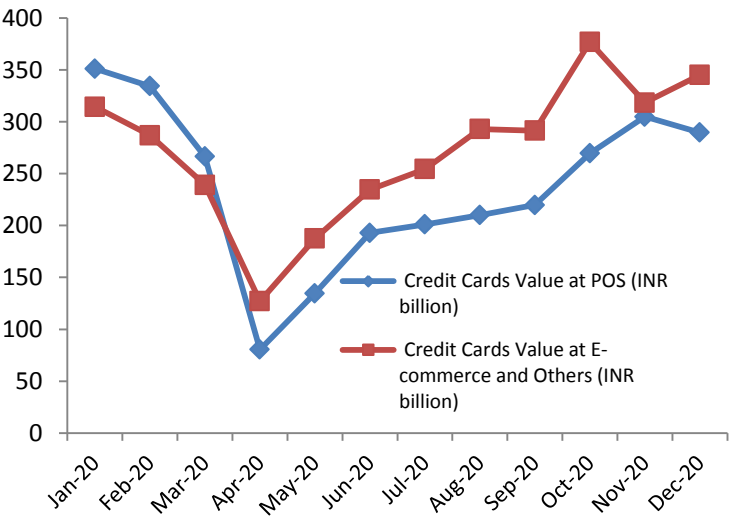
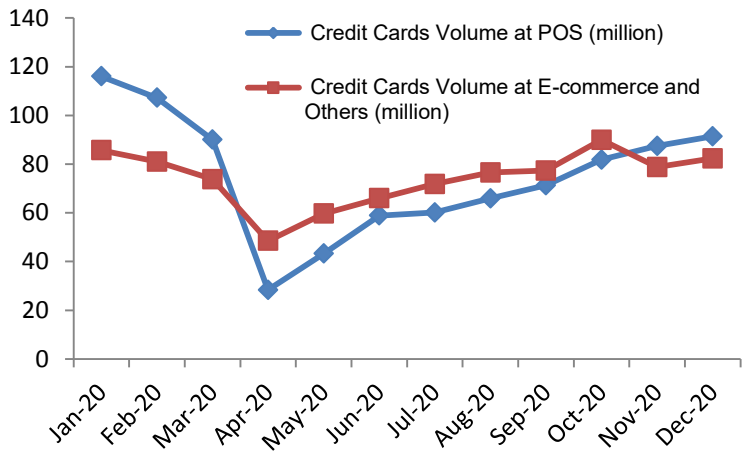


## Transaction analysis of Credit Cards

Credit cards volume and value in 2020 stood at 1.79 billion and INR 6.13 trillion respectively.

The number of credit card transactions at POS accounted for 901.95 million while ecommerce was 891.52 million. In terms of value, consumers transacted INR 2.86 trillion at POS and INR 3.27 trillion at ecommerce via credit cards in 2020.

# CARD ISSUANCE



## Transaction analysis of Debit cards

In 2020, debit card transactions volume and value stood at 4.31 billion and INR 8.91 trillion respectively.

Out of the total debit card volume, transactions at POS were 2.14 billion and e-commerce were 2.18 billion. In terms of value, INR 3.61 trillion was processed at POS terminals while INR 5.30 trillion was processed at e-commerce via debit cards.

Even though credit cards volume at POS and e-commerce are nearly equal, value of e-commerce transactions is 15% higher as compared with value of transactions at POS. Similarly, debit card transactions value on e-commerce was 47% higher than its transactions value at POS. This reflects a larger movement seen in the previous year from physical to the virtual.

As of December 2020, Average Ticket Size of credit cards was INR 3653 and Average Ticket Size of debit cards was INR 2568.



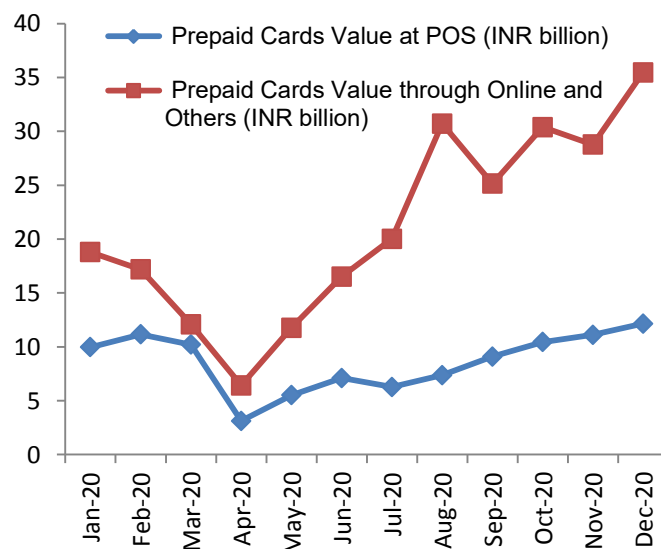
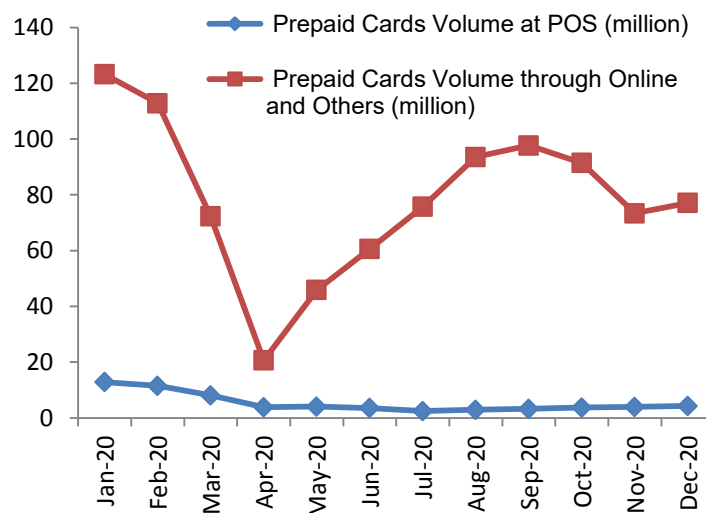
# PREPAID PAYMENT INSTRUMENTS

As of December 2020, there were 2.08 billion prepaid payment instruments in the country. Of this 2.08 billion, 166.41 million comprised of prepaid cards and 1.91 billion were mobile wallets. During 2020, there was a 67% increase in the number of prepaid cards while number of wallets increased by 16%.

## Analysis of Prepaid Cards transactions

In 2020, total prepaid cards transactions volume and value was 1.01 billion and INR 356.85 billion respectively. Its transactions at POS accounted for 64.45 million while transactions through ecommerce were 944.37 million.

In terms of value, prepaid cards at POS processed transactions were worth INR 103.54 billion while INR 253.31 billion was processed through ecommerce. Total spends through PPI instruments increased by 65% during the year 2020.



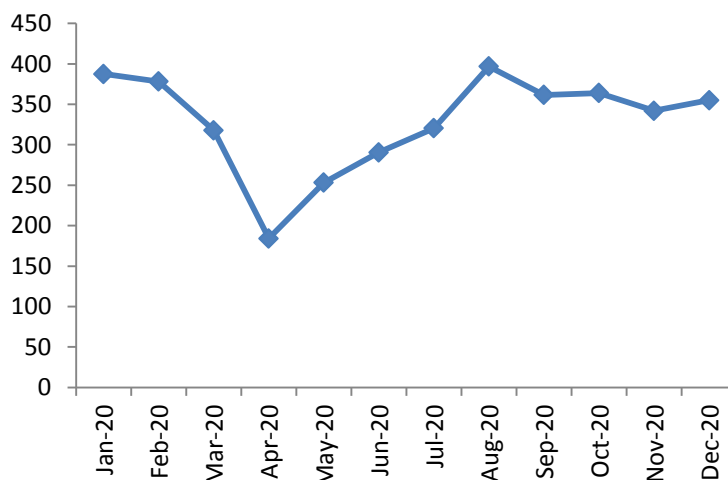
# PREPAID PAYMENT INSTRUMENTS

## Transaction analysis of Mobile Wallets

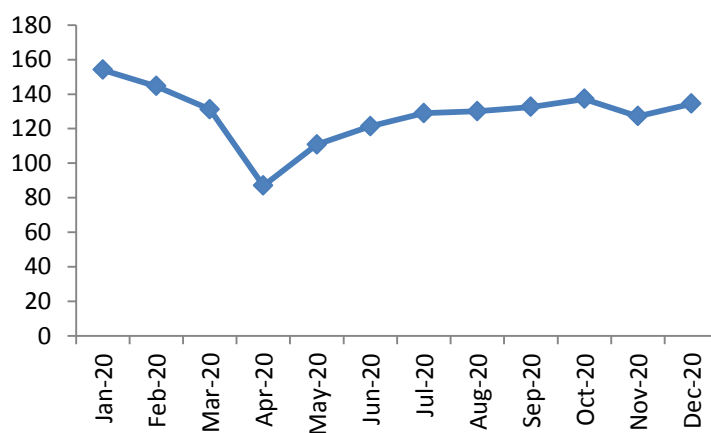
In 2020, transactions through mobile wallets were 3.95 billion and its value was accounted for INR 1.53 trillion.

Mobile wallets witnessed negative growth of 8% in volume and 16% in value. It is possible that UPI growth has eaten into this.

m-Wallet Volume (million)



m-Wallet Value (INR billion)



# MOBILE BASED PAYMENTS & INTERNET BASED PAYMENTS

In 2020, consumers made 21.44 billion mobile based payments whereas Net Banking / Internet browser based transactions were over 3.12 billion. In terms of value, INR 75.41 trillion was transacted through mobile while INR 378.59 trillion was transacted through the internet.

## Mobile payments

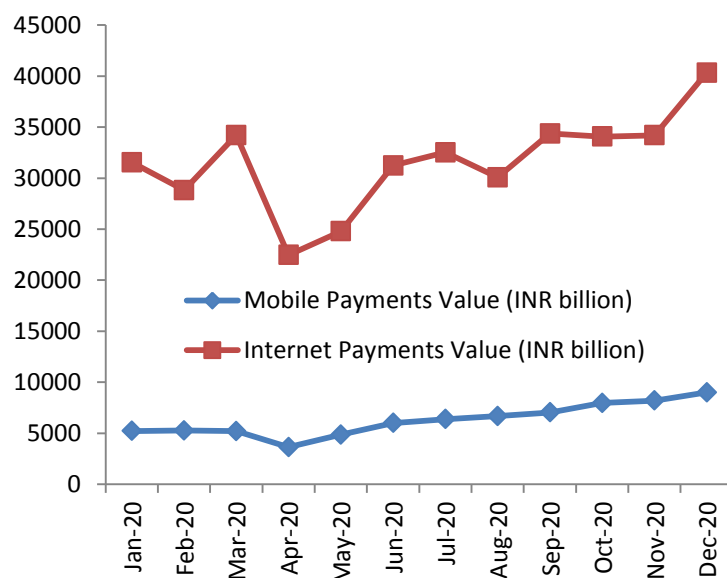
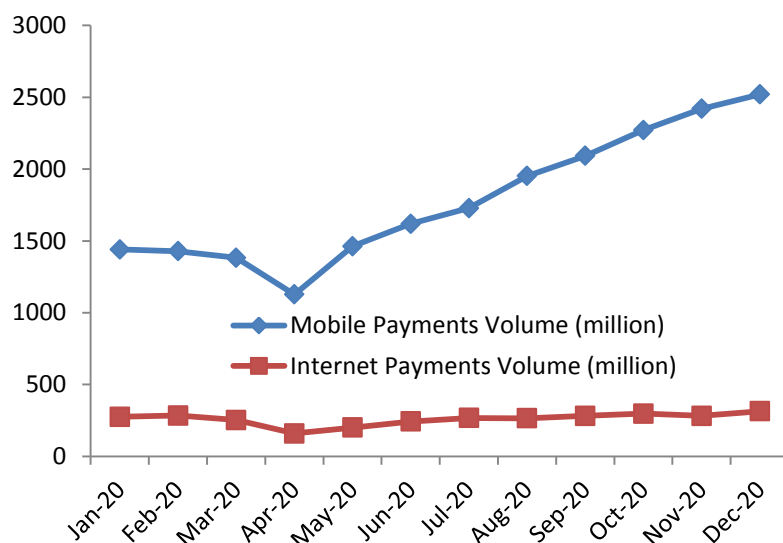
In 2020, Mobile based transactions recorded a volume of 21.44 billion and INR 75.41 trillion in value.

Mobile payments volume increased by 75% while its value increased by 73%. Out of the total mobile based payments volume, 1.93 billion were intra-bank transactions and 19.51 billion were inter-bank transactions. In terms of value, mobile payments registered intra-bank transactions of INR 15.26 trillion while inter-bank value was INR 60.15 trillion.

## Internet Payments

In 2020, Internet based transactions recorded volume of 3.12 billion and INR 378.59 trillion in value.

Internet based payments volume and value registered an uptick of 14% and 28% respectively. Out of total internet based payments volume, 680.95 million were intra-bank transactions and 2.44 billion were inter-bank transactions. In terms of value, internet payments accounted for INR 185.35 trillion intra-bank transactions and INR 193.23 trillion inter-bank transactions.

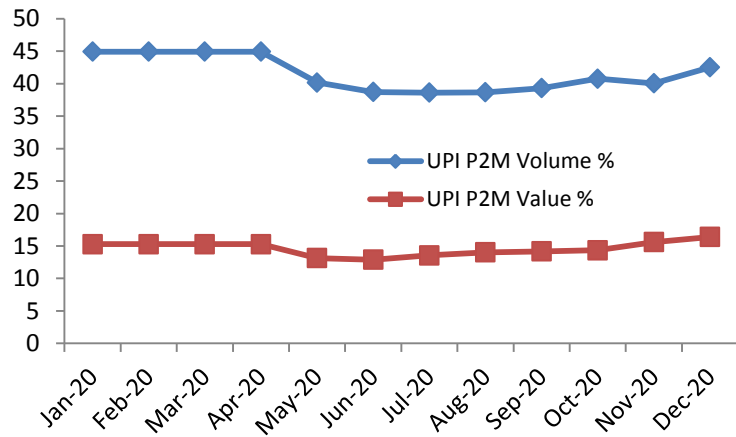
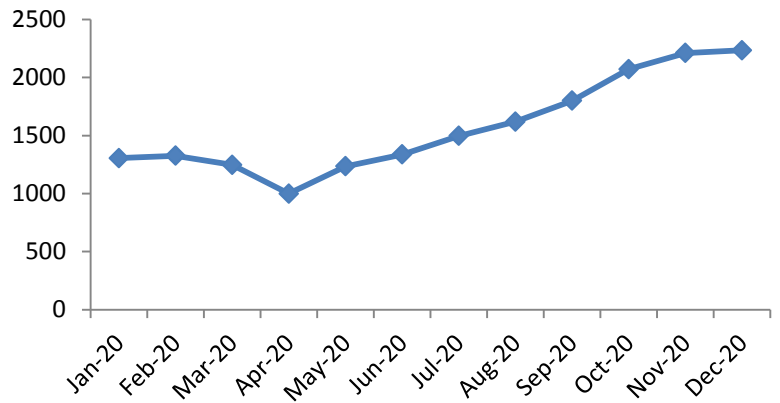


# UNIFIED PAYMENTS

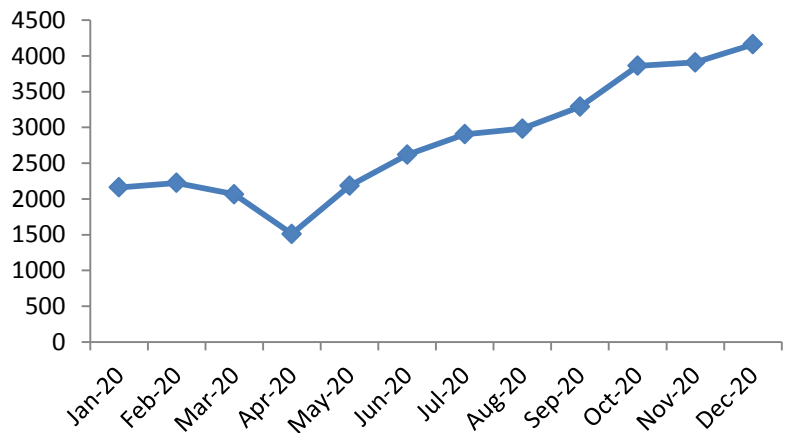
## INTERFACE

By December 2020, 57% of UPI transactions were P2P (Person-to-Person) while 43% were P2M (Person-to-Merchant).

UPI Volume (million)



UPI Value (INR billion)



Overall, UPI continued to grow as one of the most preferred mode of payments in 2020 by recording 18.88 billion transactions in volume and INR 33.87 trillion in value.

64 banks joined the UPI ecosystem in 2020 bringing the total number of banks providing UPI services to 207 as of December 2020. NPCI's BHIM App was live for customers of 165 banks by the end of 2020.

### Immediate Payment Service (IMPS)

IMPS recorded transactions volume of 2.97 billion and value of INR 26.83 trillion in 2020.

61 banks joined the IMPS ecosystem in 2020 bringing the total number of banks providing IMPS services to 620 as of December 2020. IMPS continued to grow in 2020 even after RBI decided to make National Electronic Funds Transfer (NEFT) system available on all days of the year, including holidays. Further, on December 14, 2020, RBI decided to make RTGS available round the clock on all days of the year. IMPS completed 10 years of its existence in November 2020.



# NATIONAL ELECTRONIC

## TOLL COLLECTION

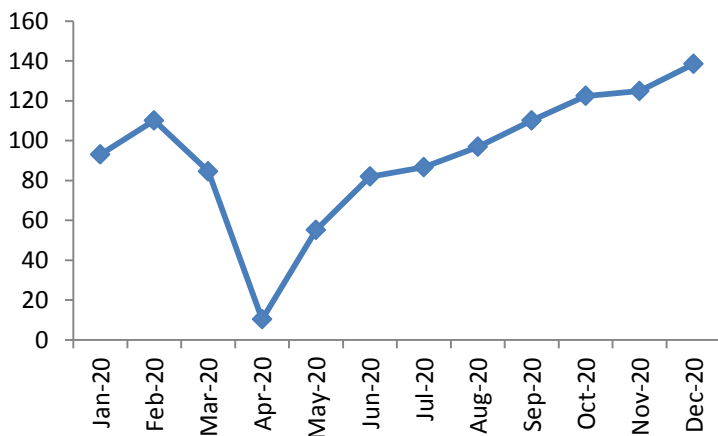
In 2020, NETC processed about 1.11 billion transactions worth INR 169.06 billion. Its transactions volume jumped 201% while value increased by 143% as compared with previous year.

As of December 2020, 28 banks were live on the NETC program and about 22.95 million FASTags have been issued since its inception.

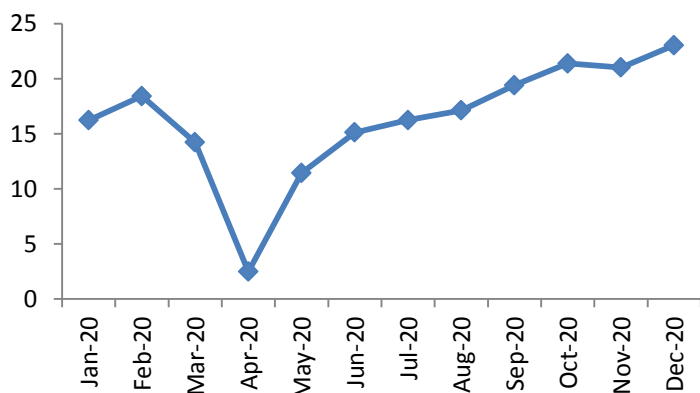
Currently the program is live on 720+ toll plazas across the country. NPCI is enhancing NETC enabled use cases like contactless and interoperable parking solution in major cities like Bengaluru, Delhi, Chennai, Hyderabad and Mumbai.

FASTag has been made mandatory for four-wheelers from January 1, 2021. Moreover, FASTag has been made mandatory for new third party insurance with effect from April 2021 and the renewal of fitness certificate will be done only after the fitment of FASTag for transport vehicles.

NETC Volume (million)



NETC Value (INR billion)

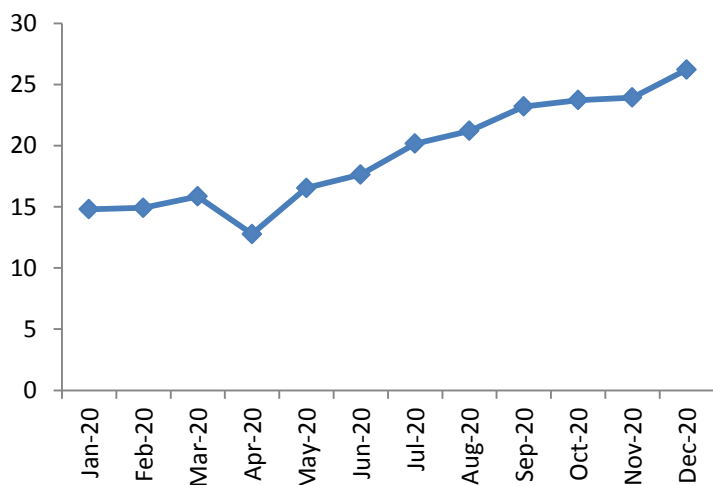


# BHARAT BILLPAY

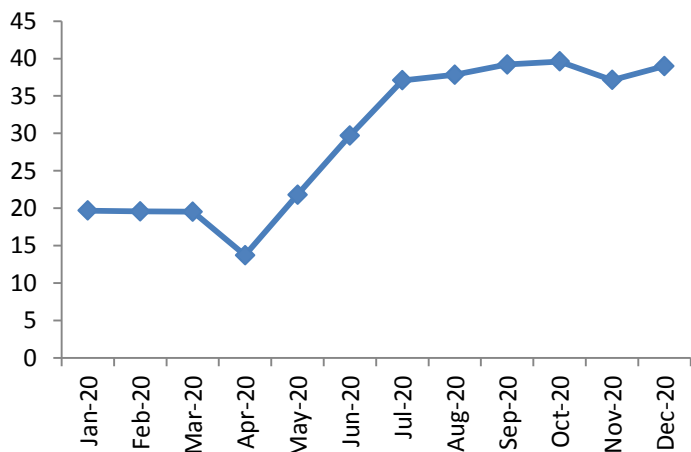
The transactions volume passing through Bharat Bill Payment Central Unit (BBPCU) in 2020 stood at 230.94 million while its value was INR 353.82 billion. It registered an increase of 84% in volume and 89% in value as compared with the previous year.

By the end of 2020, 19,316 billers were live with Bharat BillPay comprising of major recurring payment categories like Loan repayments, Insurance, Education, Housing societies, FASTag recharge, TV cable subscription, Hospitals among others.

**Bharat BillPay Volume (million)**



**Bharat BillPay Value (INR billion)**



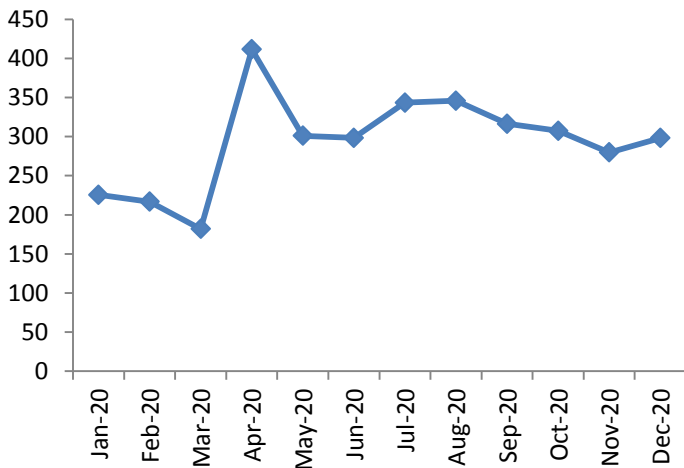
# AADHAAR ENABLED

## PAYMENT SERVICE

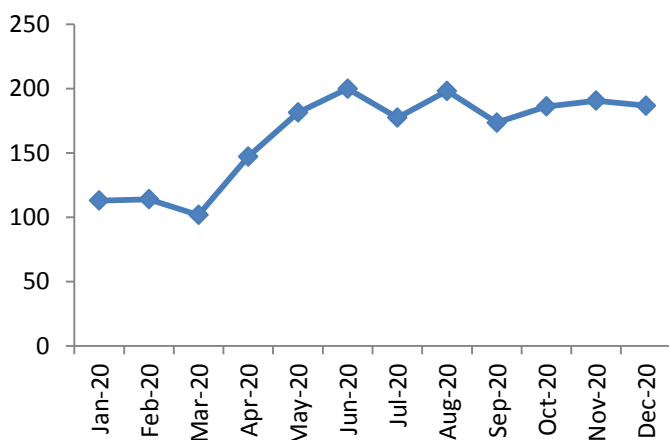
**AePS transactions (ONUS, OFFUS, DEMO AUTH & eKYC) in 2020 recorded a substantial volume of over 3.52 billion transactions and processed transactions worth INR 1.96 trillion. It registered an increase of 49% in volume and 85% in value over 2019.**

AEPS has facilitated the government's Direct Benefit Transfers to beneficiaries during the year and several banks have provided banking services at customers' doorstep through Banking Correspondents.

**AePS Volume (million)**



**AePS Value (INR billion)**



*A mobile first, mobile only acceptance solution that transforms a merchant's smartphone into a POS terminal.*

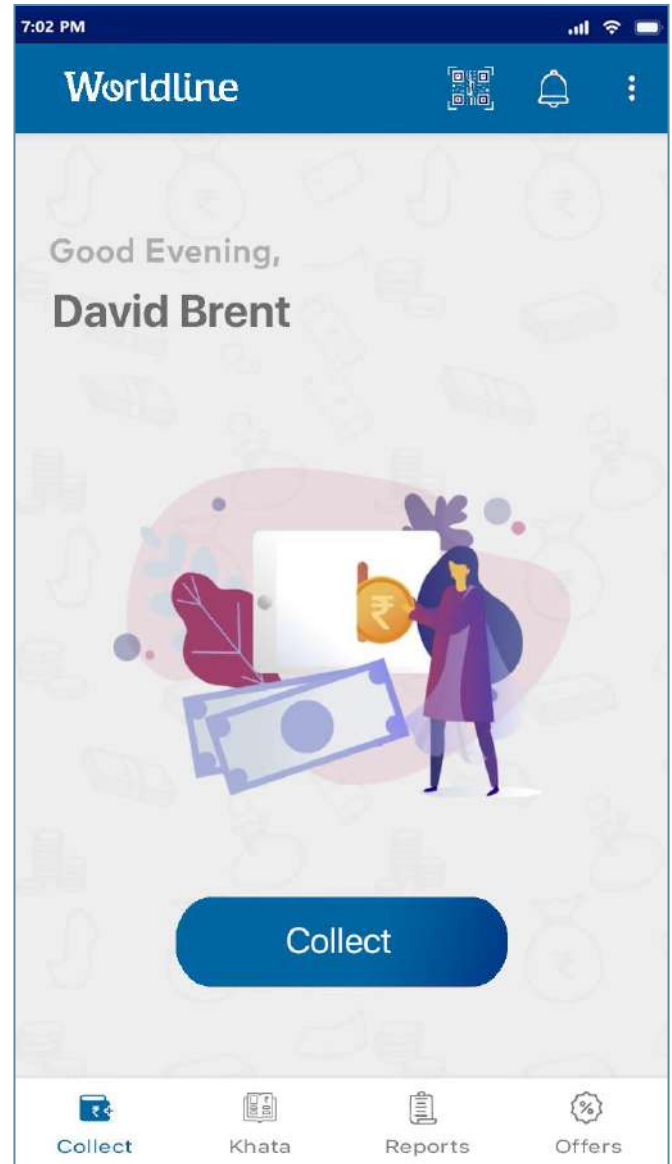
Worldline presents an asset-less acceptance solution with a 360 degree coverage of payment modes for in-person and remote payments acceptance. It is a low cost solution with a specific focus on merchants in Tier II and below cities.

## TAP ON PHONE

- ❖ An industry first capability of allowing contactless payments acceptance on an NFC enabled Android mobile device.
- ❖ Fully compliant with existing regulatory restrictions of accepting contactless payments without AFA up to INR 2,000
- ❖ Currently certified with individual schemes under the scheme specific pilot program guidelines.
- ❖ Upgrade to a PCI CPOC certified solution is in the roadmap.

## FEATURES

- ❖ **DIY on-boarding experience:** Integrated with real time KYC validation and seamless digital on-boarding
- ❖ **Khata:** Record customer level credit ledgers and send reminders for collections with built in payment links for a seamless collection experience.
- ❖ **Cash Register:** It can record cash transactions making it convenient for the merchant to keep a record of all collections.
- ❖ **Online Dukaan:** Create a virtual store front and catalogue your inventory for customers to make online purchases.
- ❖ **Acceptance Coverage:** Accept payments using contactless cards, Bharat QR, UPI and payment links sent over SMS/E-mail.





# PAYMENT ORCHESTRATION PLATFORM BY INGENICO

Payment Orchestration Platform is an innovative interface to manage multiple integrations on a single platform.



## Why You Need This Innovative Payment Solution?

### Faster Access

Allows effortless addition of new payment features on the platform as and when they are launched.

### Acquiring Control

Provide complete control to choose from wide array of payment methods, just pick and choose as per your requirement.

### Growth And Innovation

It allows you to focus on growth instead of managing complex payment infrastructures.

### Cost Efficiency

Optimises resources and cuts down cost involved in managing multiple payment methods.

### Elevating Customer Experience

Seamless checkout experience for your customers with highest success rates.

## What Can You Expect



### Maximise Digital ROI

It helps you optimise payments by increasing payment acceptance rates, manage transaction flows, analyse payment performance, and mitigate risks.



### Minimised transaction failure

Ensures minimal link failures, transaction drops, and errors even if the customer's internet connectivity drops.



### Handles all forms of payments

Supports multiple payment methods like debit and credit cards, net banking, wallets, and UPI.



### Smooth migration

Uninterrupted and hassle-free transition from existing payment integration to Payment Orchestration Platform.



### Secure transactions

Transactions are safeguarded using card tokenisation and payment tokenisation to prevent any data breach.



### Easy accessibility across platforms

Can be integrated with Android, iOS, and other hybrid applications for enabling direct payments from banks, acquirers, and processors.



### Operational support

Helping you manage multiple payment formats with business ready dashboard with real time payment reports, and analytics.

## For whom?

Payment Orchestration Platform is important for businesses with multiple customer touchpoints.



# ABOUT WORLDLINE

## WORLDLINE & INGENICO

CREATING TOGETHER A GLOBAL PAYMENT SERVICE PROVIDER

**#1**  
MERCHANT ACQUIRER  
IN CONTINENTAL  
EUROPE

**#1**  
EUROPEAN  
PAYMENT  
PROCESSOR

**#1**  
POS MARKET  
LEADER

DIGITAL PAYMENTS  
FOR A TRUSTED WORLD

**c.1,200**  
FINANCIAL INSTITUTIONS  
CLIENTS

**20,000+**  
WORLDLINERS

**#1 EUROPEAN PSP**  
(in revenues)

**LEADERSHIP  
& SCALE**

**c.1 M.**  
MERCHANTS

**c.35 M.**  
POS TERMINALS DEPLOYED

**50+**  
COUNTRIES/TERRITORIES

**#4 GLOBAL PLAYER**  
(in revenues)

**#3**  
EUROPEAN PROVIDER  
OF E- & M- PAYMENT  
SOLUTIONS

**c.2.5bn**  
NUMBER OF ONLINE  
TRANSACTIONS  
PROCESSED

**Worldline**

Worldline [Euronext: WLN] is the European leader in the payments and transactional services industry and #4 player worldwide. With its global reach and its commitment to innovation, Worldline is the technology partner of choice for merchants, banks and third-party acquirers as well as public transport operators, government agencies and industrial companies in all sectors. Powered by over 20,000 employees in more than 50 countries, Worldline provides its clients with sustainable, trusted and secure solutions across the payment value chain, fostering their business growth wherever they are.

**Worldline India** (WI) is wholly owned by Worldline SA, is a transactions facilitator in all spectrums of the digital payments ecosystem and provides the highest available level of products, services and solutions that are fully compliant with PCI and RBI guidelines. The main areas of business in the digital payments ecosystem it is involved in are merchant acquiring, card issuance, FASTag issuance and acquiring, loyalty solutions, private label card management service, bill payments platforms, recurring payments platforms and cloud platforms, payment gateway and payment aggregator services, risk mitigation, Value-added services among others. Worldline India is constantly investing in the latest technologies to increase efficiencies, drive innovation and deliver customer delight. It is the payment partner of choice for merchants, banks, government agencies and industrial companies, delivering best-in-class digital transaction services.

In 2020, Worldline generated a proforma revenue of 4.8 billion euros. [worldline.com](https://www.worldline.com)



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Worldline India

**Worldline**



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