

# INDIA DIGITAL PAYMENTS – WHAT'S NEXT?



# Overview

From being a predominant cash economy, India is now considered a 'lighthouse' in the way it has designed its electronic payments infrastructure to emerge as the world's fastest growing digital payments economy. Progressive regulatory policies, the proliferation of smartphones, and booming investments in digital payments are fuelling the country's journey towards a trillion-dollar digital economy. Having embraced the goal of "Faceless, Paperless, Cashless" Digital Payments, the next few years will revolutionise the way money is moved in the Indian economy.



# On the Road to Digital Dominance

India is establishing itself as a global leader in building innovative, population-scale payment systems. “Faceless, Paperless, and Cashless” is the defining tenet of the government’s vision to bring formal payments and banking to every Indian citizen. The government and regulatory bodies over the last decade have adopted a risk-based, light-touch regulation model, rolled out several progressive policy initiatives aimed at strengthening digital payments infrastructure. The concept is most directly exhibited in the case of India’s Jan Dhan, Aadhaar and Mobile (JAM) trinity, the Aadhaar system providing biometric IDs to all of India’s citizens, and mobile connectivity. The JAM trinity endeavour has provided over 420 million financial accounts of which 280 million are owned by rural Indians previously excluded from the financial system. These accounts, linked to Indians’ mobile phones verified by their Aadhaar digital ID, have become the conduit for the government’s vast subsidy system.

Collectively on the ground, these developments are triggering massive behavioural shifts from a payment’s perspective. A burgeoning generation of digitally-minded consumers is increasingly comfortable using digital payment modes for needs as diverse as opening bank accounts, buying tickets for the cinema, summoning taxi rides to ordering food. Contactless payments to taxi drivers, street hawkers and even donations to temples are now possible by scanning a QR code. Payments mobile phone bills, utilities, rent or internet fees, can be made on the go through a few clicks via India’s real-time payment rails (UPI).

Growing at a compounded rate of over 30% year-on-year, the COVID-19 pandemic further turbocharged the development of digital payments. All at once, handling cash, paying for daily essentials, and conducting business in person became risky. For many consumers a practical measure to avoid contact contamination has become the primary preference, as the simplicity, transparency and convenience of digital payments became apparent.

Businesses of all types are racing to take advantage of new opportunities. With the emergence of new fintech companies, payment banks, and big tech the landscape is far more vibrant. The country is at a decisive point in its journey toward achieving universal available, affordable, financial services. Transaction values are growing across the board as more money is circulated in a digital format. By 2025, based on current trends, the cash to non-cash ratio in India could be the exact reverse of what it is today. Digital transactions, as a ratio of total transactions, are estimated to grow from the current 24% to 75% by 2026. The value of digital payments will grow three-fold to touch USD 1 trillion by financial year 2026, accounting for 30 per cent of India’s consumption as compared to USD 300 billion in 2021, according to a report by CLSA.



# New Payment Streams

As the economy continues to grow and consumer behaviour shifts towards using less cash, it is opening the floodgates for payments innovation. Conventional payment systems and business models are being challenged as part of this evolution, which is bringing new ideas, products and use cases to the fore. These positive signs notwithstanding, per capita payments usage remains low in India, especially in rural areas.

It is critical to build a balanced market for digital transactions, wherein consumers can receive as well as spend digital funds with ease. New digitization interventions need to consider expanding consumer usage opportunities, without which consumers can quickly convert funds into cash rather than maintain a digital store of value. A range of new innovations to meet diverse needs of populations are emerging. This includes:

## Offline Payments

Digital payments imply users have access to the internet and a smartphone. For this reason, the availability and affordability of information and communication technology play a critical role. However, despite promising developments, affordability (or lack thereof) remains a key barrier. The digital payments sector is unable to reach over 50% Indians, primarily due to a lack of internet access. India has a large base of 340M users, who have basic no-frill devices and primarily live in rural areas with limited Internet connectivity and limited access to innovative payment products.

To bridge this gap, the central regulator, the Reserve Bank of India (RBI) recently issued a framework to support small-value, offline payments. Offline payments are at an evolutionary phase across the globe as well as in India but could play a crucial role in propelling adoption of digital payment especially in rural areas.

People living in remote areas without any internet connectivity can make offline payments up to INR 200 (USD 2.7) per transaction (subject to an overall limit of INR 2,000) without any additional factor of authentication (AFA). Offline payment solutions can support multiple form factors (e.g., cards, mobile devices, digital wallets, IVR-based solutions, e-vouchers, tokens) that are affordable for low-income segments and will bring many consumers into the digital fold.

The regulation catalyses new and existing initiatives. The National Common Mobility Card (NCMC) – open-loop smart card, which can be used offline for all payment systems (transit operators, retail, e-commerce) across India – using stored value aims to digitise spends

incurred by households on their daily commute. UPI eVoucher enables UPI account holders to text monies to any feature phone user. Many players have also introduced sound-based payments for making and receiving payments linked to UPI or card rails.

### **Biometric Contactless Payments**

The pandemic-driven rise of contactless payments has contributed to increased activity in the biometric card space. UBS analysts project that biometric payment cards could capture a 15% share of the global card market within the next five years. Currently use of contactless payments is constrained due to low transaction thresholds on account of security concerns. For issuers, biometric cards offer a first-mover advantage, enabling them to differentiate card programs and improve card fee revenues. For merchants, biometric cards are designed to be compatible with existing payment terminals. The information processing takes place within the card, there are no additional support requirements for merchants or acquirers during transaction processing.

### **Soft POS Expands Payment Acceptance**

An approximate 60% Indians shop at their neighbourhood stores according to a study by Kantar. According to RBI data, as of July 2020, there were a total of 5.1 million point of sale (PoS) machines in India. The lack of acceptance points, especially among merchants that serve consumers at the base of the pyramid, perpetuates cash usage. Soft POS can transform the economics of payment acceptance for millions of merchants by enabling them to accept payments virtually anywhere with only a smartphone/tablet and a mobile terminal. By eliminating the need for any additional hardware, Soft POS optimises costs of accepting payments and prevents de-digitisation of funds by consumers.

Just like traditional POS software, Soft POS allows merchants to accept credit and debit card payments, contactless cards, QR Payments, and digital and mobile wallets. Furthermore, value-added services (VAS) like billing solutions, GST solutions, expense-management apps can help acquirers increase revenue. Instead of disintegrated processes with different systems running on multiple payment methods, all types of payments are accepted via a single solution and connected at the backend to a single server.

### **Embedded Payments**

In the digital era, convenience wins. Customers are already used to native payment capabilities inside their everyday apps. As “payments” become further absorbed into the commerce journeys of consumers, embedding financial services in non-financial products, can exponentially expand access and adoption

Entering 2022, embedded finance is at the threshold of a surge and will extend into more industries than it ever has in the past. Multiple banks, FinTechs and BigTechs are closely working with non-financial entities to expand the market for business opportunities that span lending, insurance, wealth, and other overlay services. Instead of dealing with separate banking providers, customers can get access to tailored financial services that are seamlessly embedded into the customer journey. For example, ride hailing services offer travel insurance products to drivers as well as customers booking intercity rides directly within their app. Or a hospital app for booking doctor consultations offers health insurance to patients on the same app. Many consumer goods companies likewise offer “buy now pay later” options to shoppers with a lower interest rate at checkout. By logically integrating these services into the customer’s path to purchase, banks can expand markets, reach new customers now when they need their services. Making it work will require new technologies and capabilities, as services are usually distributed to clients via APIs. Banks often struggle with their cost structures, which are frequently based on legacy technology and enabled through manual processes and operations.

## **Open Ecosystems and Super Platforms**

The real need for financial products is likely to be higher than the actual use of a specific financial service by consumers. Financial systems are not able to close the access and usage deficit as they are unable to reap the necessary economies of scale and network externalities to operate on an efficient scale. As a result, they are trapped in a suboptimal equilibrium characterised by high average costs per account and low usage (i.e. few customers and fewer transactions).

In India, super-platforms are at an early growth stage and can play a crucial role in resolving last mile access challenges to cater to the latent need for financial products amongst the unbanked. Globally, and in India, super apps have captured the imagination of consumers over the past few years and can function as a gateway to a versatile range of products and services from utility payments to consumer finance. Prominent examples are WeChat and Alipay in China, Go-Jek and Ovo in Indonesia, Boost in Malaysia and KakaoPay in Korea. By connecting producers and distributors and generating network effects, super platforms can generate economies of scale that allow costs to be lowered and processes to be improved.

# Open Initiatives

The payments market growth comes with certain risks in terms of data protection and privacy, digital exclusion and market concentration. If not adequately managed, these risks could undermine financial inclusion outcomes. This underscores the importance of effective regulatory, oversight and supervision frameworks. The Indian regulator has taken several steps to promote open systems that do not exclude disadvantaged segments. Prominent examples of new initiatives include Open Credit, Open Lending and NUE,

## **Expansion of Digital Credit**

A mere 11% of India's 63 million MSMEs have access to formal finance and the latent need for credit is estimated to be USD 330 billion. A large unserved segment of the population is failing to meet traditional credit assessments. OCEN, a framework of APIs for interaction between lenders, loan service providers and account aggregators, aims to eliminate asymmetries in access to credit. With OCEN any company can connect to the open network and get access to a vast and secure infrastructure for lending, and immediately start financing its customers OCEN enables loan service providers to tap into alternate data sources such as cash flow to evaluate credit worthiness rather than traditional balance sheets. For instance, the Sahay app being piloted allows merchants to raise working capital loans against outstanding invoices. BCG envisages the OCEN network would be instrumental in moving 75% of all digital loans onto 3rd party platforms. The infrastructure also has the potential to open other innovative retail micro-lending products and services. For example, a company that remits a high volume of invoices promptly may be eligible for lower interest rates on a loan. BNPL RBI guidelines allow any approved entity to disburse loans up to INR 60,000 (USD 833) in a year to a person registered through Aadhaar OTP-based KYC process.

Embedded finance also offers a bonus in terms of the data banks can collect from each transaction to help enhance customer service experience and innovate new products and experiences.

## **Rise of Open Commerce**

India is the world's most promising Internet economy, with a rapidly increasing 'netizen' population. With 750 million smartphone customers, India is the second-largest country globally in terms of internet users. With improved data affordability, improved consumption capacity and newer financial products, the e-commerce market is set to grow by 84% to \$111 billion by 2024. The next set of online sellers and shoppers are expected to come from Tier II cities or beyond, and a vast majority of them would be less tech-savvy.

The network will facilitate the creation of a shared digital infrastructure to standardise operations such as onboarding, price discovery, and product cataloguing, to drive efficiencies in logistics. ONDC will expand the market by facilitating sellers and buyers to sell or buy on any platform and transact through an open network. A consumer searching for a product can see a seller listed on another platform and opt to buy from the merchant as the price is more competitive or due to a better delivery time.

Although early days yet actualisation of an open commerce network will bring the long tail of merchants onto the digital fold and create a fair and transparent transacting environment.

## **Payments Infrastructure**

Market competition and a level playing field is critical to establishing an enabling environment for the provision of inclusive retail payment services. While many jurisdictions enable authorised/regulated non-banks to offer payment services to end users, operating payment infrastructures for central clearing and settlement of transactions in many countries is controlled by the regulator or regulator approved bodies. For instance, in India currently the National Payment Corporation of India (NPCI) powers digital payment rails for AePS, UPI and IMPS. With the exponential growth being witnessed in the payments segment, there is a need to encourage more players to strengthen the payments landscape with a view to minimize the concentration risk in retail payment systems and make markets more diverse, competitive, efficient, and inclusive by enabling connectivity for non-banking financial companies.

In February 2020, the RBI drafted a framework for setting up a pan-India umbrella entity (PUE) focusing on retail payment systems in India. Globally several examples abound. In the EU region Single Euro Payments Area (SEPA) Instant Credit Transfer scheme co-exists with some local FPS, such as Express Elixir (Poland). Other overlay services (for example, in Italy and France) also use SCT Inst as the underlying rail to carry out real-time payment. In South Africa, although Real Time Clearing (RTC), an FPS, is present in the market. BankServ Africa plans to launch a new mobile friendly FPS, Rapid Payments Programme (RPP) by Q2 2022 to create an integrated platform for payments and increase financial inclusion.

NUE would be tasked with setting up, managing, and operating new payment systems in the retail space. Multiple use cases are expected to emerge to fill the white spaces in India's payment landscape, such as ATMs, white-label PoS, Aadhaar-based payments and remittance services, cross-border remittances, PoS switch and Government payment platforms. The entity is also expected to operate clearing and settlement systems, and manage risks such as settlement, credit, and monitor retail payments system to avoid shocks and fraud in the economy. Competition in the space would improve accessibility of payments services for every citizen, lower costs and drive further growth.

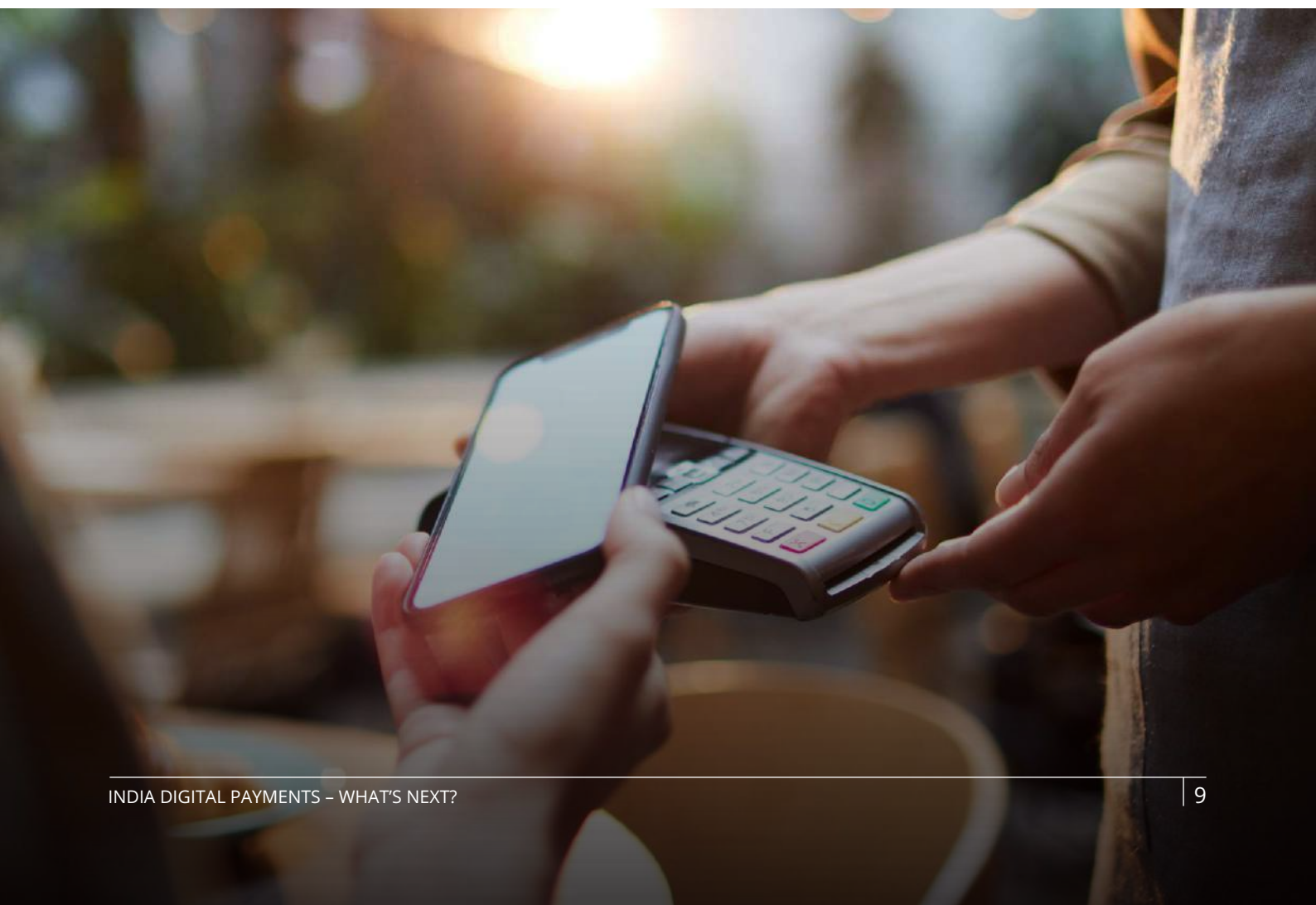


# In Conclusion

A modern regulatory policy framework, substantive investment in digital innovation from Fintech sources and a digital environment that inspires trust continues to propel India's meteoric rise into a global payments powerhouse.

For 30 years, FSS has been guided by its purpose to connect the world through fast, secure and simple payments technology that empowers individuals, communities, and economies to thrive. Having pioneered digital payments in India, with the establishment of the first ATMs and ATM Switch in the country, and the first processing facility, FSS continues to support this growth to bring each segment under the formal fold of digital payment services.

India's digital payments landscape will be dominated by billions of micro-transactions (transactions of value lower than Rs 100). In fact, 50% of transactions are to be under Rs.100, according to the Google-BCG report. FSS is working to build internet-scale, robust infrastructure that banks and non-bank providers can plug into to begin offering services to customers.



## About FSS

FSS (Financial Software and Systems) is a leader in payments technology and transaction processing. FSS offers an integrated portfolio of software products, hosted payment services and software solutions built over 30+ years of experience. FSS, end-to-end payments products suite, powers retail delivery channels including ATM, POS, Internet and Mobile as well as critical back-end functions including cards management, reconciliation, settlement, merchant management and device monitoring.

Headquartered in India, FSS services leading global banks, financial institutions, processors, central regulators and governments across North America, UK/Europe, Middle East, Africa and APAC.

For more information, write to [products@fsstech.com](mailto:products@fsstech.com)