



India: the frontier of payments innovation

A comprehensive and open digital public-good infrastructure serves as the backbone for one of the world's most interesting markets for new payment ideas

India's Unified Payments Interface (UPI), the instant payment system built and backed by the Indian state, is the foundation upon which one of the world's most vibrant digital payments industries has been built. Innovation continues here at pace, creating a compelling opportunity for providers and customers.

The UPI is open architecture, fully interoperable and free to access. UPI was designed to enable interoperability between money custodians, payment rails and front-end payment applications. This means barriers to entry are low, encouraging not only banks but also fintechs to participate in the development of payment architecture.

The result is the most active digital payments market in the world: the National Payment Corporation of India (NPCI) logs ten billion digital payment transactions a month through UPI, and seeks to reach 100 billion transactions a month. It is also a market in a constant state of evolution.

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UPI's evolution brings product development

As UPI has grown from its payment roots, new features have enabled different digital use cases. For example, UPI Autopay allows telecom companies to collect subscription



flows without a customer having to initiate a payment. The RuPay credit card has been embedded on to the platform, which is likely to drive credit card adoption from its current rather muted level of 85-90 million cards for 1.4 billion people. And the UPI Lite model allows access to UPI for those with feature phones, rather than the more technically advanced smartphones, broadening financial inclusion.

"There has been a constant evolution in UPI from being a payment scheme for P2P payments, into a growing payment channel for business payments," says Mridula Iyer, Head of Treasury and Trade Solutions, South Asia, Citi. "Solutions like UPI Auto Pay and the linkage of RuPay to UPI would lead to new use cases for businesses.

"On the back of payment infrastructure like UPI, business models are changing rapidly because digital infrastructure is encouraging corporate clients to think about digitizing traditional forms of business."

This is visible in companies going direct to the consumer, disintermediating retailers and distributors. Companies are also launching their own marketplaces for their products, taking advantage of easier payment and collection services.

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Head of Treasury and Trade Solutions, South Asia, Citi





Cross-border - the future of innovation

Looking to the future, cross-border will be an obvious area for innovation. India's UPI and Singapore's PayNow have been connected in a pilot for instant settlements, but there is enormous scope to do more.

NPCI International Payments Limited (NIPL) is building a large acceptance network for RuPay and UPI which will help Indian travelers pay with these payment channels in foreign destinations. NIPL is also building a technology platform to onboard global remittance institutions, enabling them to connect directly with the UPI platform in India for instant settlement of inward remittances.

It is likely that India's Central Bank Digital Currency (CBDC), the Digital Rupee, currently in a pilot testing stage, will find its greatest practical utility in cross-border ecosystems, because this market is filled with inefficiency: there are capital controls, India's is not a fully convertible currency, transfers are inefficient and settlement is slow.

For this to happen, there will need to be a more standardized framework

globally for the settlement of CBDC transactions. But the Reserve Bank of India's Payments Vision 2025, an important roadmap to the future, has a clearly stated priority to bring efficiencies in payment processing and settlement to CBDCs both domestically and cross-border. So it would appear to be only a question of time.

Domestic stitching of solutions

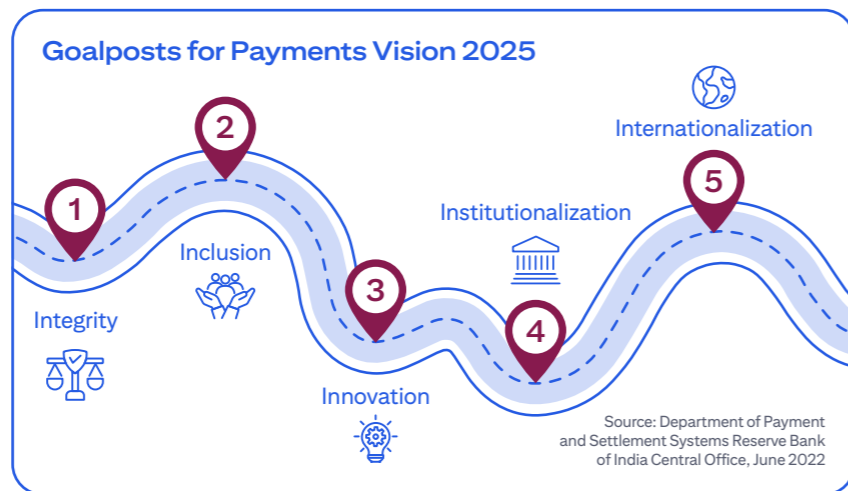
Domestically, an opportunity for banks such as Citi can be found in stitching together the many payment

solutions in the country in a way that is more efficient for customers by bringing multiple APIs and payment systems together. This could help customers receive instantaneous refunds on returned orders, or digitize cash on delivery orders via QR based payments for e-commerce companies. It could involve combining multiple technologies to tip a delivery boy bringing food to the customer's door, or assisting non-banking financial companies (NBFCs) on instant account validation and loan disbursement.

"We are co-creating new use cases with our clients to help them collect and pay in the most efficient manner by leveraging payment schemes in the country to enable our clients to provide better services to their customers, suppliers and vendors," says Iyer.

The Reserve Bank of India will continue its efforts to reduce the amount of cash in the Indian economy, which still accounts for roughly 12.5% of GDP. The specific aims of Vision 2025 include trebling the number of digital payment transactions in four years, driving annualized growth of 50% in UPI and 20% in IMPS/NEFT (instant payment mechanisms), and reducing cash in circulation.

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Two initiatives to watch

01. The Open Credit Enablement Network (OECN)

is a decentralized repository through which banks, non-banks and fintechs can connect and share borrower-related information, with their consent, to make better lending decisions. OECN has codified the flow of credit between borrowers, lenders, and credit distributors under a common set of standards. This speaks to an increasing trend: the linking of credit mechanisms to payment mechanisms, which will make it easier for lending decisions to be made promptly using the same digital channels through which payments are directed today.

02. The Open Network for Digital Commerce (ONDC)

is a government-led initiative aimed at promoting open networks for all aspects of exchange of goods and services over digital or electronic networks to achieve interoperability and unbundling of services. ONDC is a communication protocol that allows buyer network participants and seller network participants to interact with each other.

Planned as a pan-Indian initiative it is currently being piloted in over 270 cities in India, and aims to increase India's e-commerce penetration to 25% in the next five years from the current level of 7.8% by allowing small retailers and storekeepers access to vastly improved markets through a low-fee and open platform.

"ONDC will be the next big frontier for change in this country," says Iyer. "It is revolutionizing e-commerce by encouraging competition and innovation. I don't think an experiment like this has been done anywhere in the world."

These two platforms illustrate trends that will continue to define payments and treasury trends in India in the years ahead: expanding payments infrastructure into lending, and marketplaces which cut out intermediaries and empower e-commerce suppliers. They are examples of the innovation afforded by India's great investment in digital infrastructure. India is leading the way in the development and evolution of Open Digital Ecosystems (ODEs), fostering innovation and growth at an unprecedented pace.

1. <https://www.moneycontrol.com/news/business/npci-launches-new-upi-features-to-achieve-100-bn-monthly-transactions-details-here-11323831.html> 2. paytm.com/blog/bill-payments/upi-autopay/here-is-all-you-need-to-know-about-upi-autopay-3 3. www.rupay.co.in/rupay-credit-card-on-upi-4 4. www.livemint.com/industry/banking/credit-card-dues-at-2-tn-by-apr-mark-a-milestone-11688909501655.html 5. www.mas.gov.sg/news/media-releases/2023/launch-of-real-time-payments-between-singapore-and-india 6. www.livemint.com/news/india/tbis-retail-pilot-of-the-digital-rupee-goes-live-in-4-metro-cities-11680863898471.html 7. rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/PAYMENTSVISION2025844D11300C884DC4ACB8E56B7348F4D4.PDF 8. www.statista.com/statistics/1028133/india-currency-in-circulation-as-share-of-gdp/#:~:text=In%20fiscal%20year%202022%2C%20the,India%20was%20nearly%2014%20percent 9. rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/PAYMENTSVISION2025844D11300C884DC4ACB8E56B7348F4D4.PDF 10. bfsi.economicstimes.indiatimes.com/news/fintech/explained-whats-ocn-and-how-can-it-accelerate-digital-lending/100951449 11. [ondc.org](https://www.ondc.org)

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CTA 4451