



ธนาคารแห่งประเทศไทย  
BANK OF THAILAND

BOT Digital Finance Conference 2023

# Innovation of Payments from India Experience

## Sep 14, 2023

# Unique model by India – Digital Public Infrastructure



Digital Identity

Layer 1



Digital Payment

Layer 2



Digital Data Exchange

Layer 3

# India Story: India leading from the front in the Digital space with India Stack

**80%**

Population with the access to banking services

**1<sup>st</sup>**

Largest digital ID issuance under Aadhaar scheme with 1.3 billion

**1<sup>st</sup>**

Country with large liberalized internet (Affordable data with \$0.17 per GB, 1.2 Bn cell phone users with 70% smartphone)



Source : [Statista](#) , [IMF](#)



Demographic dividend of India  
Indian median age **28**  
years



3<sup>rd</sup> largest fintech ecosystem with rapidly surfacing Unicorns



Active customers in digital payments - exponential growth of **367%**



Best in class Digital Public Infrastructure

# NPCI has Transformed and Modernized the Payment Infrastructure in India by driving innovations in payments

NPCI has Transformed and Modernized the Payment Infrastructure in India by driving innovations in payments

An Umbrella Organization for all retail payments in India. Incorporated in the year 2008

NPCI was set up under the guidance and support of Reserve Bank of India and Indian Banking Association

NPCI is a Not-For-Profit Organization



Presently **65 Partners** are shareholders of NPCI

**19**

Private Sector Banks

**04**

Foreign Banks

**10**

Multi State Co-op Banks

**05**

Regional Rural Banks

**11**

Public sector Banks

**02**

Payments Banks

**10**

Payment System Operators (Non-Banks)

**04**

Small Finance Banks

Regulatory Bodies



Indian Banks' Association

Shareholding Entities

ICICI Bank

HDFC BANK

AXIS BANK

SBI

पंजाब नैशनल बैंक  
punjab national bank

Standard Chartered

Deutsche Bank

HSBC

citibank

kotak  
Kotak Mahindra Bank

YES BANK

amazon pay

Hitachi Payment

Union Bank  
of India

बैंक ऑफ बड़ौदा  
Bank of Baroda

इंडिया पोस्ट  
पेमेन्ट्स बैंक

sodexo

paytm payments bank

PayU

₹ PhonePe

Pine Labs

# With 74 Billion financial transactions on UPI in '22; India leads digital payments

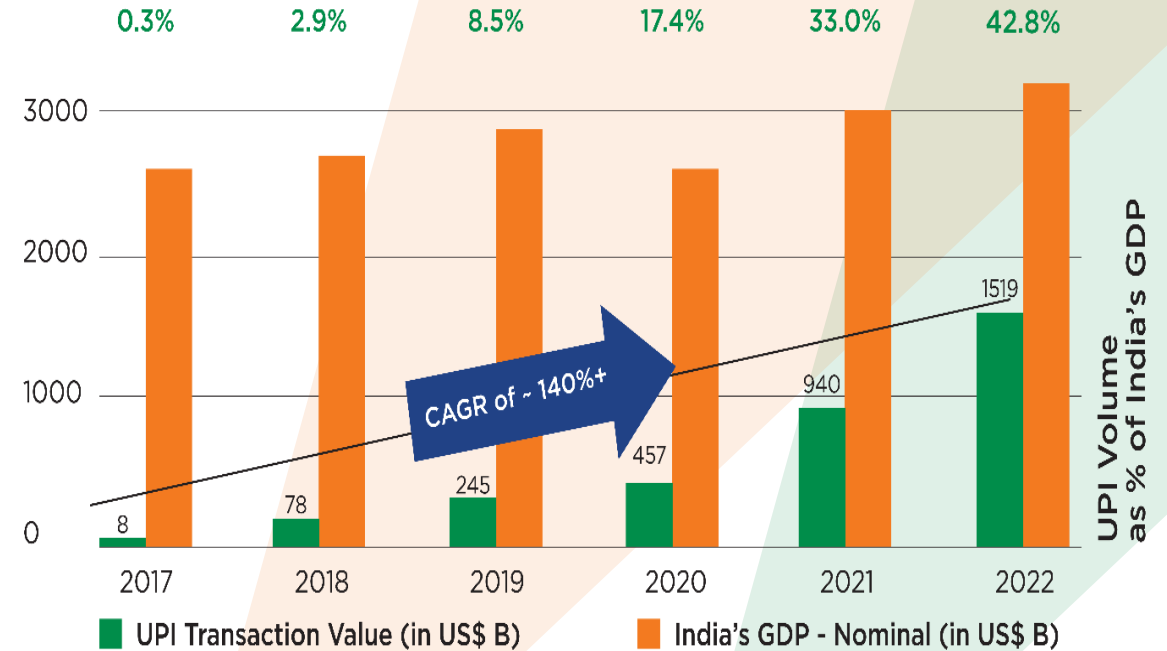
UPI processed **10.6 Billion** financial transactions and **USD 190 Billion+** transaction value in Aug 2023

# 1 On **processed value and volume** in the World

## UPI's Eco-system in India



## UPI's Performance in India



75% share in digital payments in India and growing



Capacity to process ~1 Billion transactions/day



40% of instant payments in world are processed on UPI



US\$ 1.5 Trillion worth commerce in 2022



# Value created by UPI like deployment runs across multiple use-cases

## Merchant Payments



Merchants sector for payments using QR as asset lite mode of acquiring

## Personal payments



Person to person payments / remittances for various needs using UPI ID and/or UPI QR

## UPI on Delivery



Payment on Delivery using QR scan and Pay; push payment using UPI ID

## Website Payments



Online/ website payments using QR and Request to Pay feature merchant website

## Bill Payments



Bill payments using QR and dynamic UPI ID for enabling direct bill payments

## Recurring Payments



Recurring payments using the mandate facility of UPI like solution

## Biometric payments



Biometric payments basis biometric authentication using a trusted third party (e.g., National ID provider)

## Feature phone payments



Enable Feature phone payments using the USSD protocol integrated with RTPS

## UPI IPO Mandate



Subscribe for IPOs using UPI. UPI IPO Mandate is a request on a smart phone app to block the fund for an IPO application

## UPI is CBDC ready



UPI Protocol is future ready for Central Bank Digital currency support

# Digital transformation in India is well acknowledged....

**EXCLUSIVE INTERVIEW** **SUNDAR PICHAI**  
CEO, GOOGLE & ALPHABET

## Country has Set Shining Example with UPI, Aadhaar & India Stack

Concerned by some aspects of CCI rulings against Google, says Pichai



**NEW DELHI** Alphabet and Google chief executive Sundar Pichai said India has set a shining example of what it has accomplished with the Unified Payments Interface (UPI), Aadhaar and India Stack and has set a responsible regulatory model for governments across the globe who need to grow their economies. Pichai, who visited India in April, said the country's digital transformation is a model for the world.

**Given the scale and role that technology plays in society, governments – including in India – are rightfully ensuring citizens' rights, particularly around privacy, security, data, etc.**

Fintech · 2 Min Read

## With UPI, India has created something 'truly special': Mark Zuckerberg

Facebook CEO Mark Zuckerberg said he is 'excited' that WhatsApp has been approved to launch payments across India and said he wanted to thank all the partners who have made this possible.

## IMF praises India's digital transformation, calls it 'world-class infrastructure'; Asks other nations to learn from it

India's journey highlights lessons for other countries embarking on their own digital transformation

WEB DESK · Apr 6, 2023, 08:00 pm IST in Bharat, Technology

## India's Aadhaar, UPI, CoWin Journey Inspiring; Others Can Follow for Digital Evolution: UNDP Officer

## India's UPI system a global model: Bill Gates

YOOLIM LEE BLOOMBERG

China, I'd say they should look at India," Gates said at the Singapore Fintech Festival on Tuesday. "Things are really exploding there and innovation around that system is phenomenal."

India digital payments took off after the government pushed demonetization in 2016, invalidating most of the country's high-value bank notes in a move to curb corruption and push Indians away from cash.

The Unified Payments Interface, or UPI, has been aided by booming smartphone use and wireless data rates that are among the lowest in the world.

India mandates that companies use its UPI platform so payments can be sent easily among all services, including those from Facebook Inc., Amazon.com Inc., Walmart Inc., Paytm and any new upstart.

"If people are going to study one country right now, other than



ards to roll out similar systems based on open-source technologies, he added.

India's biometric system – called Aadhaar or "foundation" in Hindi – has raised privacy concerns because it can also be used for government surveillance of citizens. Prime Minister Narendra Modi opposed the system before coming to power, but has since embraced it. Countries such as Russia, Morocco and Bangladesh have expressed interest in the approach.

Gates, overall, was optimistic about how quickly vaccines were being developed to address the Covid-19 pandemic. He expects there will be about six treatments available in the first quarter of next year, which he called a significant accomplishment.

"Digital things overall – remote learning, telemedicine, digital

finance – were greatly advanced," he said. "So even though the pandemic has been terrible, it has pushed some of these innovations, including how quickly we make vaccines."

But Gates warned that addressing the virus has to be done in an equitable way – rich countries shouldn't get to decide who gets access to vaccines.

That's why his foundation is working with global manufacturers, including the Serum Institute in India, to make sure there are sufficient dosage numbers at reasonable prices.

He said he expects vaccines to put an end to the coronavirus in 2022, though he warned against complacency.

"We can't forget that another pandemic will come, so we need to invest and be ready," he said.

## UPI makes India global leader in growth of real-time payments infrastructure as cash use declines: Report

## How India became the global 'guru' of instant payments

The country is exporting its successful digital payments model to help other markets develop UPI ecosystems

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## India can repeat UPI success in e-commerce: Walmart CEO Doug McMillon

'We talk about India in every board meeting'

National Payments Corporation of India  
Connecting commerce



# Formation of NPCI International for A Journey Beyond, to democratize payments

NPCI has formed a subsidiary - NPCI International Payments Limited (NIPL) in Q2 2020 to take indigenously developed best-in-class digital payment solutions to International markets



From India to the World for “Digital Public Good”



## Journey backed by our achievements in India

- ✓ Driver of Financial Inclusion ~744 Million
- ✓ RuPay card holders
- ✓ 345+ Million Unified Payments Interface users
- 266+ Million Merchant QRs



## Our Objective

- ✓ UPI for Digital Public Good
- ✓ Acceptance for UPI apps and RuPay Cards Globally
- ✓ Remittance to and from India with efficiency and speed

Financial Inclusion

Cash Displacement

Sovereign Solution

Enable Open Banking

Fintechs Incubation

Multiplier of Economic Activity

Cross-border Interoperability

Enabler of National Agenda, with public infrastructure





Thank You



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