Indian Retail Payment Initiatives
Serving a Billion People

Chicago Payments Symposium

Nanda Dave
October 12, 2016
India at a glance

**Population in million (2015)**

- China: 1,371
- India: 1,311
- United States: 321
- Indonesia: 161
- Brazil: 10
- Pakistan: 5
- Nigeria: 1
- Bangladesh: 0

**Internet Users in India (in Million)**

- 2010: 92
- 2011: 126
- 2012: 159
- 2013: 193
- 2014: 272
- 2015: 341

CAGR = 30%

**Credit and Debit Cards Issued (in Million)**

- 2011: 1,161
- 2012: 1,196
- 2013: 1,213
- 2014: 1,247

**ATM and POS Comparison**

- US
  - ATMs: 425
  - POS Terminals: 14

- India
  - ATMs: 216
  - POS Terminals: 1.45

Source: World Bank, IBEF, BIS

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Reserve Bank of India

Main Functions

- Monetary Authority
- Regulator and Supervisor of financial system
- Regulator and Supervisor of Payment and Settlement Systems
- Manager of Foreign Exchange
- Issuer of Currency
- Developmental Role
- Banker to Government
- Banker to Banks
Payments Vision 2018

Building best of class payment and settlement systems for a ‘less cash’ India through responsive regulation, robust infrastructure, effective supervision and customer centricity

Key Drives:
- Financial Inclusion
- Move to a ‘Less Cash’ economy
- Demand for faster payments
- Interoperability
- Integration of government payments

Key Enablers:
- Government Push
- Smart phone Penetration
- Widespread Innovation
Retail Payments Ecosystem

Instruments
1. Debit / credit cards
2. Prepaid Payment Instruments (PPI)
3. Bank account: Net banking and mobile banking
4. Cheques

Remittance System
1. National Electronic Fund Transfer (NEFT)
2. Immediate Payment Service (IMPS)
3. Unified Payment Interface (UPI)
4. Aadhaar Enabled Payment System (AEPS)

Bulk & Repetitive
1. National Automated Clearing House (NACH)
2. Aadhaar Payment Bridge System (APBS)
3. Electronic Clearing Service (ECS)

Segmental Needs
1. Trade Receivables Discounting System (TReDS)
2. Bharat Bill Payment System (BBPS)
Key Initiatives

Card Payments

Aadhaar (Biometric Identity) Based Payments

Mobile Payments

Fast Payments
Electronic Retail Payments

Transaction Volume

Payment Value

Card Payments

Aadhaar

Mobile Payments

Fast Payments

Source: RBI data
Securing Card Transactions

2009 - 2011

- Online Alerts
- AFA for CP/CNP
- PIN validation at ATMs

2012 - 2014

- PIN@POS for Debit cards
- EMV processing at POS

2015 onwards

- NFC payments
- EMV Chip and PIN cards (2018)
- EMV processing at ATMs (2017)

Debit Cards: 688 million
Credit cards: 26 million

Card Payments
Aadhaar
Mobile Payments
Fast Payments

Source: RBI data
JAM Trinity

246 million
Basic Savings Bank Deposit Account

Ubiquitous, handy, safe
Last mile connectivity
1.03 billion

Unique Customer Identification, Biometric
1.06 billion

Source: TRAI, PMJDY, UIDAI
Aadhaar – Unique Biometric Identity

Direct Benefit Transfer

- MGNREGA Payments
- Scholarship Disbursements
- Old Age Pensions

Sponsor Bank

NPCLI

Issuer Bank’s CBS

Issuer Bank’s Fi Switch

NPCLI Central Switch (AEPS)

Acquirer Bank’s Fi Switch

1. MGNREGA Payments
2. Scholarship Disbursements
3. Old Age Pensions

Card Payments

Aadhaar

Mobile Payments

Fast Payments

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Mobile Wallets in India

- Telecom Backed Wallets
  - Idea Money
  - Reliance Jio Wallet
- Independent Wallets
  - Airtel Money
  - Vodafone M-Pesa
  - Paytm
  - mRupee Mobi Wallet
  - Oxigen Wallet
  - Mobikwik Wallet
  - ICICI Pockets
  - State Bank Buddy

Card Payments  Aadhaar  Mobile Payments  Fast Payments
Mobile Payments at a glance

Mobile Payment Volume in million
- CAGR (Mobile Wallets) = 164%
- CAGR (Mobile Banking) = 94%

Mobile Payment Value in INR billion
- CAGR (Mobile Wallets) = 174%
- CAGR (Mobile Banking) = 307%

Source: RBI data
Fast Payments System: IMPS

- IMPS (IMMEDIATE PAYMENT SERVICE)
- Multi-Channel
- Push & Pull Transactions
- INR 200,000
- Banks and Non banks
- Account Aadhaar MMID
- Multiple DNS in RTGS
Unified Payment Interface (UPI)

- Remitter Bank & Payer PSP, Payee PSP & Beneficiary Bank could all be separate entities.

- Virtual Address
- Push & Pull Payments
- Interoperable Merchant payments
- Rides on IMPS (24 x 7)

Card Payments | Aadhaar | Mobile Payments | Fast Payments
The Way Forward

- Increasing Acceptance Infrastructure
- Leveraging the mobile
- Enhanced use of Aadhaar in payments
- Creating Customer awareness
- Cyber Security
Thank You!

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Single Window for anywhere anytime bill payment

Offers accessibility, convenience and enhances consumer trust

“Anytime anywhere” interoperable Bill Payment System

Will set common standards across the country both for ON-US and OFF-US Bills

Allows Multiple Payment Modes

Instant and Verifiable Confirmation of Payments
Inter-operable mobile banking service on USSD (Unstructured Supplementary Services Data) platform

Banking customers dial a common number *99# to access an interactive menu on the mobile – irrespective of telco or bank

Works even without internet.

Works on basic phone as well as smartphone.

All 11 telcos in the country are connected to the platform

Service is offered in 11 regional languages and English

Transaction value limited to INR 5000

Financial and Non-financial transactions

4.33 million transactions in September, 2016
Cheque Clearing Systems

- 85 – 90 million Cheques per month
- CTS (Three grids)
- Electronic Cheque Clearing (Over 1200)
- T+1 Clearing
- CTS 2010 standards
- Positive Pay
- National Archival for Images