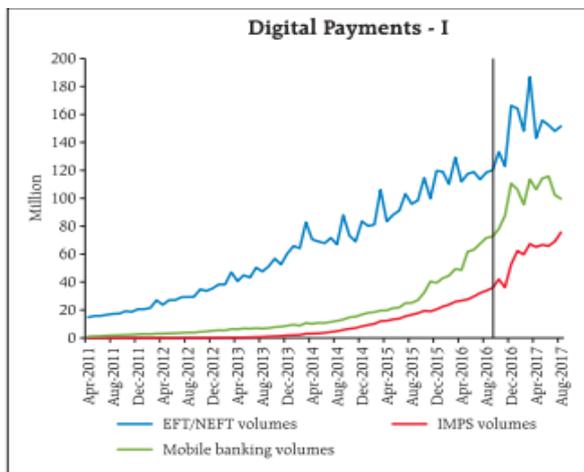


Last Mile Digital Payments: Value Focused Approaches for Promoting Uptakes



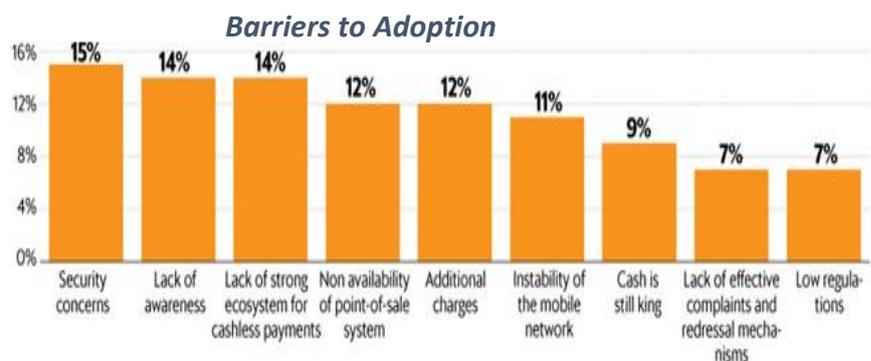
Digital payments and per capita transactions are one of the lowest in India compared to other countries such as China, Mexico, Brazil, South Africa¹. In developing economies, 80 % of the economic transactions happen through cash as opposed to 21 % in developed economies (i.e. 18 % of the GDP) leaving significant room for opportunities in increase in usage.²

The **RBI report on the Impact of Demonetisation on the Financial Sector** (Refer Fig. 1) shows that there has been a significant drop in digital payments in Jan-Feb 2017, post demonetization, as soon as cash supply resumed back to normal. The largest drop off observed has been among low income consumers and small merchants owing to the poor viability of payment models and low incentives for digitisation.

The number of digital transactions fell from 893.9 million in March to 853.1 million in April 2017 (4.56 % decline). Highest volume recorded was in December 2016, 957.5 million (RBI). While, there has been a marginal increase in digital transactions from April to May 2017, it would be too early to attribute this to significant structural shifts or behavioural changes among merchants and consumers.

The Last Mile Bridge:

The fragmentation of end users (including consumers, merchants and suppliers) as well as solution providers, complexity of the interface and its processes, confusion amongst users due to multiple digital payment options, lack of convenience and trust factors are other barriers for the expansion of digital payments.



Last mile connectivity has also been affected due to increasing costs of digital payments for urban merchants and the lack of PoS infrastructure for rural merchants. Urban merchants are reluctant in shifting towards wallet services due to higher transaction costs, and increase in business volumes are insufficient to support the recurring monthly costs in maintaining the telephone infrastructure for digital payments RBI data reveals that the number of PoS machines have increased by 47% from Oct'16 to Feb'17, and this increase has been observed in urban areas while PoS infrastructure remains inadequate in rural areas.

Crossing the Last-Mile Bridge: Creative Approaches

Mobile payment solutions

- India has 1.03 billion phone users with a teledensity of around 85 percent, 1.09 billion out of the total population of 1.25 billion have Aadhar numbers.
- M-wallet firms like Paytm Freecharge and Mobikwik announced major expansion plans after demonetization partnering with cab operators, vegetable vendors and kirana stores for digital payment.
- Google Tez**, mobile payments service by Google launched in October 2017 (operating on UPI interface and does not require users to share any personal information such as mobile numbers or usernames like other payment applications, uses Audio QR codes and rely on sound transmitted at a frequency inaudible to human ear from the payee handset to the merchant handset). Currently accepted by PVR Cinemas, RedBus, Mc Donald's and expected to be joined by other businesses like Dish TV, Jet Airways and Domino's. Over 30 million transactions were made on the app as of October 27, 2017.

Thus innovations engaging mobile based financial tools could be the way forward providing unique capabilities in overcoming the challenges of the payments landscape and thereby significantly lowering the cost of banking services to customers.

¹ (NITI Aayog Interim Report of the Committee of Chief Ministers on Digital Payments, Jan 2017).

² ePaisa, December 2016

Aadhar Enabled Payment System (AEPS) allows online transactions at points of sale (microatm) through business correspondents (BC's) of any bank using Aadhar authentication.

- AEPS transactions have grown 3.6 times in 2016-17 to 344.84 million (from 95 million in 2015-16, NPCI data). Business correspondents use AEPS at a rate of nearly 1.5 million transactions per month for disbursing cash and is utilised in Common Service Centres.

Aadhaar-based Biometric Authentication (ABBA) system, using an electronic point of sale (pos) machine to authenticate each transaction in the PDS.

- 5.2 lakh Fair Price Shops (fpss) in the country covering 80.7 crore persons under NFSA against 23.2 crore ration cards. 2.83 lakh fpss in 20 States/uts have pos devices for electronic capturing of sale transactions at fpss.
- So far 81% ration cards are reported to be seeded with Aadhaar number of atleast one family member. In the month of October 2017, 47 % of pos transactions are reported to be without Aadhaar-based authentication.³

Aadhar Pay: Bhim Aadhar Pay app for merchants across the country links Aadhaar number and biometric fingerprint to complete transactions.

- No additional charges are levied on merchants unlike debit/credit cards, installation costs of a biometric scanner for Aadhar Pay are much lower than POS machines, and eliminates longer waiting periods and hassles associated with getting a new pos machine; the disadvantage being the need for internet connectivity. Customers do not need to have an android phone or any other technology to make payments. No service tax or any extra charges on the payments using this app. Instant Payments are facilitated through Aadhar bridge system, similar to (AEPS).
- **Incentives for merchants and shopkeepers** adopting the biometric mode for digital transactions in line with the commission given by banks to BC's, and incentivising banks with 0.25 % on the value of a transaction for Aadhar Pay could drive their adoption.
- BHIM Referral Bonus Scheme incentivizing existing BHIM users for bringing new users on the BHIM platform and encouraging new users to do transactions with others using BHIM. BHIM Merchant Cashback Scheme incentivizing one-time adoption of BHIM by merchants, encouraging transactions via BHIM mode and cashback to the merchant could be upto Rs 300 per month, with each merchant eligible to win up to Rs 1800 in 6 months.
- **IDFC Aadhar Pay**, the first Aadhar linked cashless solution for digital payments have been launched after successful pilots across 16 states enrolling 1500 merchants with transaction limits of 10,000 Rs, tapping into the lower consumer sector.

Smart Cards: Smart Cards in Bangalore metro buses and Kochi metro provides integrated services by offering cashless bus and train travel and can be used in 1.8 million outlets across the country. The National Highways Authority of India (NHAI) launched two smartphone apps in August 2017 to ensure smooth functioning of the Electronic Toll Collection system. Myfastag (consumer app to purchase and recharge fastags) and fastag Partner (merchant app) -- enabling buying or recharging fastags online. Introducing toll and transit cards would be the most common use cases for going digital in India.

Employing Behavioural Strategies: The migration towards digital platforms also involves a cultural-economic revolution, and recasting the mind set of consumers.

- Catalyst's first phase in Rajasthan entailed running few experiments across India in understanding merchant and consumer behaviour, and incentives for adoption of digital payments. Merchant enablement camps were held in target clusters, educational material in print/digital and video were circulated towards educating merchants on different digital payment solutions. Other initiatives include digital khaata solutions for newspaper distributors, "digital credit as a hook" models linking credit incentives to attainment of payment milestones, transit payments, supply chain payments and wage digitisation in the informal sector.
- Paytm recorded that fewer than 1 percent of all orders during their first festive season sales in 2017 were paid through cash on delivery, mainly due to high cashback offers for payments through digital wallets. Well-designed incentives such as cashback offers serve as effective nudges in driving adoption of digital payment.

The Way Forward:

Advantages of adopting digital payments include accessibility to new, high-value customers like foreign tourists, driving larger basket sizes, entering e-commerce and home deliveries platforms, business formalisation and access to broader financial services such as credit, savings, insurance etc. India's digital payment system is estimated to grow to US \$500 billion by 2020, contributing to 15 % of India's GDP in four years' period. The trends shaping this emerging landscape could be the expansion of Digital India through increasing internet connectivity and smartphone penetration; promising regulatory surroundings through the infrastructure of India Stack, Startup India Program, Jan Dhan Yojana, Aadhar Adoption, NPCI initiatives etc, escalation of Nextgen Payment Service Providers involving telecom, banks, mobile wallets, e-commerce and technology firms and enhanced customer experience and similar nudges and incentives designed to initiate the shift towards digital payments, and policies that sustain people within the digital infrastructure.

³ <http://pib.nic.in/newsite/mbErel.aspx?relid=173643>