

# Digital and Internet Finance: Future of India's Financial Inclusion Plan

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## Introduction:

As per Global Findex Database 2014, ownership of bank accounts in India increased 35 (2011) to 53 (2014) percent<sup>1</sup>. The Government of India, Reserve Bank of India and various agencies are making concerted efforts to promote financial inclusion. In efforts to bring unbanked people in to mainstream banking, several policy measures and schemes are launched over a period. In pre-internet era, structural changes were brought through schemes like Micro Finance Self Help Group Model (1992, Kisan Credit Card (1998) and No Frill Accounts (2004). After internet became ubiquitous, schemes like Business Correspondents and Business Facilitators (2006, 2009) Swabhimaan (2011), ATM and White label ATMs, electronic payment transfers through NEFT<sup>2</sup> and RTGS<sup>3</sup>, Pradhan Mantri Jan Dhan Yojana were brought into action. A mini ATM, Point of Sale Machine and Aadhaar<sup>4</sup>-enabled payment system (AEPS) makes digital money more accessible and user-friendly. Incentives are offered for online transactions and transit to less cash economy.

Information technology has played a key role in financial inclusion. Technology has enabled more effective, lower cost and real-time delivery of financial services. Younger people are rapid technology adopter, whose use of the Internet and mobile phones is growing. The sinking cost of Internet access has facilitated the adoption of digital technologies. The data rate in 2013 was double than what it was in 2016. Due to aggressive marketing and mobile network, mobile access has improved. More consumers rely on the Internet and mobile phones to meet their banking needs. The Indian Banks' Association's 2016 survey shows that almost 80 percent of transactions in the newer banks are made through digital channels. Internet and mobile transaction have accelerated since demonetization. The journey of financial inclusion in India has crossed half mark, but still 40 percent people are outside the banking circle. To bring excluded community to formal banking system is huge task and several challenges are ahead. This

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<sup>1</sup>Findex 2017 will be launched in 2018 Spring; <https://twitter.com/globalindex/status/788389422177878016>

<sup>2</sup> National Electronic Funds Transfer (NEFT) is a nation-wide payment system. Under this Scheme, individuals can electronically transfer funds from any bank branch to any individual having an account with any other bank branch in the country participating in the Scheme. NEFT transactions are settled in batches.

<sup>3</sup> Real-time gross settlement are specialist funds transfer systems where the transfer of money or securities takes place from one bank to another on a "real time" and on a "gross" basis.

<sup>4</sup> Aadhaar is a 12-digit unique identity number issued to all Indian residents based on their biometric and demographic data. Aadhar is used for direct payment of several government schemes.

chapter discusses the current scenario and how financial inclusion programs have performed so far. This chapter discusses challenges and solution to reach the universal financial inclusion goal in India.

## **Financial Exclusion**

In spite of recent growth in financial inclusion, the excluded mass is almost equal to people in the financial system. The government of India introduced several policy and administrative measures to draw people to use mobile banking transaction. The financial exclusion is attributed to various reasons. Conventional financial system has several inherent limitations which lead to unserved population. The environment in which system operate may not be compatible due to local factors. The evidence shows that high cost for small ticket size financial transaction in conventional financial system make the transactions unviable. Rural and urban poor are not aware of such system, many of them do not feel ease of operating on internet or mobile banking. Mobile and internet finance require knowledge of basic English, while literacy level in India is 74%. However, as per one estimate only 10 per cent people speak English. While mobile and computer density is 80%, smart phone density capable to allow internet banking is further low. Internet infrastructure, electricity accessibility and consistency are other bottleneck that restrict use of mobile and internet finance.

One of the major essential medium used in internet finance is mobile. In spite of very high mobile density in India, the potential for leveraging on this technology for offering financial services is largely untapped. As per one report, only 40 million subscribers out of 900 million total subscriber uses mobile for the banking transaction. The Government of India have mandated to link mobile number and bank account with unique ID, known as Aadhaar Number before 31<sup>st</sup> March 2018. Government grants and dolls are directly credited in beneficiaries' bank account. . Only 4.4 per cent mobile users have linked their mobile with banking system. There are several reasons which are responsible for this poor conversion. Low level of literacy is one of the reasons. Majority of subscribers are not familiar with English language. Mobile payment services provider Paytm, which claims 27 million users, is developing vernacular versions and expanding beyond payments to become a marketplace. Another startup, ikaaz, founded by former Nokia managers is working on making payments easy using smart phones in English at present with plans for vernacular languages soon. It has tied up with Development Credit Bank and claims 9,000 merchants on its platform which enables B2B payments. Many more merchants are now accepting payment through debit/credit cards. This has obvious accelerating effect on digital payment. Indian Post have largest network in terms of post offices throughout the country. Indian Post has more than 154,000 branches

throughout the country. Indian Post is transferring money through electronic money order, which was earlier sent through regular mail. Electronic Money Order is a web based rapid money transfer service offered by India Post between two individuals within India. The services are considered to be cost effective and secured.

## **India: A Different World on Earth**

India is one sixth of the world population. India controls 064% land on earth (1.269 million mi<sup>2</sup>/196.940 million mi<sup>2</sup>). India is third largest economy of the world. The most important indicator – India is youngest nation and largest democracy. Average Indian is 29 year old. 30% population lives in the cities, means 70% lives in villages. Rural – Urban and Poor – Rich divide is eye catching. India houses one third of world poor. It also accommodates 35 million small businesses. The country speaks over hundred languages and dialects. In each of the 30 provinces or state, you will find over 100 special meal dishes. The way business is done in Western part country is quite different than how it is done in South. Within Western part, how a Marwari merchant deals is different than Gujarati. It may be noted that the top 100 wealthiest families belongs to select 5-7 communities. Each such community have specific DNA how their families and heirs do business. MNCs ranging from IT to retail and consumer products to industrial products have adopted slightly different business model than they have adopted in other part of world. Similarly differences exists among regions and communities how each cluster meets their financing needs.

Mumbai is considered to be one of the largest city and alike any Western city if you travel to south. Within Mumbai there is Asia's largest slum called 'Dharavi', with population greater than combined half dozen states like Montana, Nebraska, Wyoming, Delaware, Maine and Alaska! The slum also occupy self-grown millionaire! Mumbai is financial capital of the country. Delhi being the National capital accommodates people who rule the country. Bengaluru, Hyderabad and Pune are global IT hubs. Ahmedabad, once a textile hub produce one third of medicines through pharmaceutical units in the state. Each part of the country enjoys unique character that masters uniquely the life. You can only understand financing in India, if you understand pulse of the region, community and local traditions.

A survey of accounts opened under Pradhan Mantri Jan Dhan Yojana, India's flagship financial inclusion programme, found that only 33 per cent of all beneficiaries were ready to use their Rupay cards. The others were bewildered by the complicated PIN and activation procedures. Inconsistent electricity and

sporadic Internet access further eroded customers' trust in ATMs and POS machines, with one failed transaction enough to make an entire village swear off formal financial institutions.

Migrating from a cash economy to a digital economy will demand a recast of the entire mindset for consumers. In fact, the last mile of the digital highway is not infrastructure but user skill levels. Making gadgets available will not help unless we bring about a change in the overall outlook of people. Consumers will take up digital platforms and embrace new opportunities if they believe that changing their behaviour and exerting the effort necessary will make certain specific pains go away. We have thus to address real pains, not just offer generic benefits. Building inclusive digital economies requires the collective action of governments, industry, financiers and civil society. Before speeding ahead, we need to build the infrastructure, align the policies and create tools that will enable the poor to comfortably board the digital train.

## **Technical Compatibility**

Mobile transaction occurs through series of instruments, software and network platform. These mobile instruments, software and network platforms are developed by different companies using different technologies. Lack of modularity and smooth interaction creates incompatibility during integration. One of the major technical issues identified by the Reserve Bank of India (RBI) is disparity in the type of mobile handset, and consequentially, the technology most customers uses. The majority of handsets in the country are GSM<sup>5</sup> or CDMA<sup>6</sup> enabled, and a comparatively small number have GPRS<sup>7</sup> technology. The RBI identified three major ways of mobile banking utilised by most banks as SMS<sup>8</sup>, USSD, and application based banking. The problems the RBI identified with the SMS method were that the service is not encrypted, and that it may become inconvenient for customers to remember the syntax required for the commands. The USSD<sup>9</sup> system solves the complexity issue, as it presents an interactive menu and is much faster than SMS. However, it is still not a secure means of communication. The technical ease depends upon cohesive flow of data on both sides. Compatibility range differs from one technology to others. The industry itself can standardize their instruments to be modular with rest of the system, as there is no regulatory provision exists to control such incompatibility.

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<sup>5</sup> Global System for Mobile Communication

<sup>6</sup> Code Division Multiple Access

<sup>7</sup> Global Packet Radio Service

<sup>8</sup> Short Message Service

<sup>9</sup> Unstructured Supplementary Service Data

## Security

Though there is low reporting of transaction failure and fraud in mobile banking in India, the feeling of trust breach, hardship in getting refund of money have negative impact and lead subscriber to avoid such internet transaction. RBI policy measures are aimed at strengthening the security of internet banking transactions including beneficiary management, velocity checks, migration from magstrip to CHIP and PIN cards and strengthening the security of card processing infrastructure. The RBI conceded that application based mobile banking is the best way to offer the service both in terms of user friendliness as well as security, but stated that developing these applications requires a large amount of research and development due to the extremely high number of permutations and combinations of handsets and operating systems available on the market, and that smartphones are in the minority as far as type of handsets go. India is a huge country in terms of area and population. The country have different culture, languages and dialects, economic standards and political fabrics, The regulators, financial institutes, mobile and software companies should come on common platform to resolve this complex issue. As a security measure, banks are using different approaches in mobile transaction. Banks use Short Message Service, USSD<sup>10</sup> and mobile applications. To resolve these issues, the RBI suggested that banks continue offering all three services, so that the largest number of people can take advantage of mobile banking services. The RBI also recommended that all banks implement a uniform mobile banking system across all three architectures (SMS, USSD, and applications) for the ease of consumers. Over emphasize on security create hurdles, delay and complexities in carrying out a transaction. Reducing the turnaround time for handling customer grievances and changing consumer behavior being a challenge, the trade-off between security and convenience often is not an easy one, given the feeble trust placed on electronic payments in India. Strong consumer protection and creating awareness can lead to stabilization in mobile payment systems.

## Cost

Indian consumers are highly price sensitive. For the small ticket, the per cent cost per transaction is very high. Cash withdrawal at an ATM in India through a credit card is charged at about 2.7%-2.8% monthly, which on an annualised compounded basis comes to about 40%. The swipe at e-store will land consumer 'instant' cash at just 1%, the rate charged by most mobile wallets and payment gateways for ecommerce

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<sup>10</sup> USSD (Unstructured Supplementary Service Data) is a Global System for Mobile(GSM) communication technology that is used to send text between a mobile phone and an application program in the network. Applications may include prepaid roaming or mobile chatting.

transactions. 60 per cent of population who lives in villages has no access to e-store purchase. Since July 2017, Government of India is levying 18 per cent GST on internet services. For small ticket size transactions, this burden will have high impact on poor and middle class people. The government has launched what it calls the Jan Dhan (People's Money) program, opening bank accounts for millions of previously unbanked customers to promote financial inclusion. About 280 million such accounts have been set up as of March 2017, allowing users to receive government subsidies and to access remittances, credit, insurance, and so on. Low-cost Indian platforms have been launched to promote digital payments—for example, RuPay, a cheaper, domestic alternative to international credit- or debit-card gateways such as MasterCard and Visa; the Unified Payment Interface (UPI), a system to facilitate the transfer of funds between bank accounts on the mobile platform; and the Bharat Interface for Money (BHIM), a mobile app based on UPI.

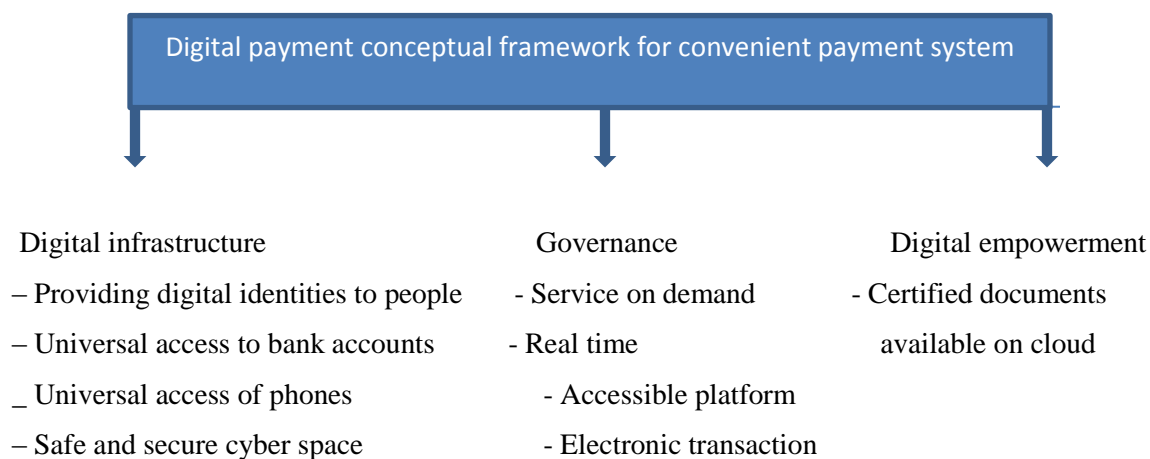
The availability of data in India has become cheaper, convenient and pervasive. Jio, a cellular company has brought revolution in mobile handset and data market. As per <http://www.trai.gov.in/>, Airtel is the country's largest mobile service provider with 282.02 million users and 23.84 percent market share, followed by Vodafone (207.37 million, 17.53 percent) and Idea Cellular (190.1 million, 16.07 percent). On the fourth and fifth positions are Jio and BSNL with 138.6 million and 11.72 percent share, and 105.76 million users and 8.94 percent share, respectively. IndiaStack and open application programming interfaces (APIs) banks can now access customer information from a single source. Many of these digital-finance initiatives use the national unique identification number (Aadhaar) to authenticate customers. The recently launched DigiLocker, for example, is a cloud-based document-repository system that enables the sharing of digitized identity documents and certificates. These developments give financial players opportunities to build innovative business models serving millions of new consumers. Both new entrants, free of legacy issues and with much lower infrastructure costs, and innovative incumbents have an advantage in reaching and serving customers. Since many existing banks have balance-sheet limitations, relatively unconstrained ones also have an opportunity to take over some wholesale loans on their own terms. In addition, disruptions, both in technology and policy, could help new banks create value and increase their efficiency.

## **Convenience**

Low level of literacy, large volume of non-English speaking users, lack of internet infrastructure, unreliable electricity supply, unskilled staff in banks and complicated documentation portray threat to mobile banking and internet finance system because of inconvenience to the consumers. The internet

penetration in India is in English, the users demand local languages interfaces to shop, pay bills, to reach out to doctors and other online services. Three fourth of the users comes from non-English speaking backgrounds. They find it difficult to navigate in English language.

Reserve Bank encourages innovation and innovative payments without ignoring the convenience factor with suitable safeguards for protecting or limiting customer liability. RBI emphasize on four principles on which financial inclusion should be achieved. These principles are; availability, affordability, acceptability and assurance of safety & security. The principles are built on three pillars namely, digital infrastructure, governance and digital empowerment as depicted in chart below:



## Government Policy

To push for digitization in India, the government policies favor financial inclusion and promote competition by allowing new domestic players to set up payments banks (which can only accept deposits and cannot issue loans or credit cards) and small-finance banks (which provide basic banking services to underserved sections of the economy). The further easing of norms, such as permission to set up wholly owned subsidiaries, makes it easier for foreign banks to enter India's banking sector. Although processes are evolving, regulatory interventions point to the emergence of a digital, inclusive, and interoperable financial-services market in India. The Indian government's twin thrusts; to encourage digital identification and cashless transactions are driving change throughout the economy. These measures picked up steam after the Unique Identification Authority of India (UIDAI), a statutory body responsible for providing the country's residents with a biometric identity and a digital platform to authenticate identity was set up in 2016. The UIDAI has issued more than a billion unique identity (Aadhaar) cards, covering most of the country's adult population. The government is pushing the whole financial system to

use this unified identification system, and that has major implications for the financial sector. The system, which can be used not only for verifying customers but also for loans, direct transfers of subsidies, and a host of other financial transactions will promote internet finance.

The regulatory push by the government and the RBI over the past few years is encouraging more competition and the emergence of digital business models. New categories of banking licenses have been launched; such as payments banks and small-finance banks. It's also become easier for foreign players to enter the market, since they can now set up wholly owned subsidiaries in the country. This means that they can operate much as Indian-owned banks do, without restrictions on their branch footprints or their efforts to raise domestic capital. Some of the most significant opportunities in Indian banking over the next three to five years will accrue to partnerships, a strategy that will require banks to embed themselves in the daily lives of customers to meet their financing needs. A payments bank, for example, can allow customers to cash in or cash out through local retailer outlets, bypassing the need for traditional (and more expensive) branches and ATMs. This approach will require banks to build close relationships with partners, creating integrated digital infrastructures that span their individual platforms. This mechanism of being able to embed into another ecosystem and build an entirely digital model, relies on the physical networks of the partners to access customers. It has the potential to change the economics and the ability to serve underserved segments.

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