

Demonetisation to Digitalisation -Issues and Challenges

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Abstract

The 8th November 2016 demonetization of the Rs. 500 and Rs. 1000 has played havoc with the lives of common man as regards in purchases and travel. With the withdrawal of these notes and introduction of a Rs 2000 note, a higher denomination note, routine transactions were affected. As the replenishment of new notes was delayed and tempers flared, the government began putting together mobile based payment ecosystem to mitigate the hardships of people. Apart from plastic cards, e-wallets, mobile payments, government sponsored Aadhaar based payment system have been introduced to wean away people from using cash. The basic premise of government for demonetization was ostensibly to curb parallel economy and to address other pressing national issues. Based on secondary data, the paper attempts to find out the various issues and challenges, different modes of payment available post- demonetization, the technical and other requirements for transactions, the drives initiated by government to popularize and promote digital payments. It is found that technology-based transactions would usher in ease and convenience to urban crowd but would take some time for the rural segment due to poor adaptability stemming from illiteracy and technology penetration requiring a concerted effort by government machinery to establish robust infrastructure of payment ecosystem. Suggestions have been offered at the end to have a smooth roll out of digital era.ⁱ

Key words: Demonetization, Digital payments, e-Wallets, Black money.

Introduction

When a currency is demonetized, it is taken out of circulation.

The Reserve Bank of India (RBI) is responsible for managing India's currency under the Reserve Bank of India Act (RBA) of 1934. The greatest denomination note in circulation in India at the time was the Rs 10,000 note, which was issued in 1938 and demonetized in 1946 and 1978.

The reasons put forward by the government for demonetization was to curb black money, corruption, terrorist activities, tax evasion and an attempt to encourage cash-less economy. The announcement by Prime Minister Narendra Modi on 8th Nov'16, to declare demonetization of high and old denomination notes of Rs 1000 and Rs 500 was equivalent to a paralytic stroke disabling the country to economic immobility.

These notes constitute 24% of the volume and 86% of the value of currency in circulation amounting to Rs 14,18,000 Crore as of March'16. Assuming that the black money comprises 25% India's nominal GDP, the parallel economy is expected to be around Rs 33.75 trillion (Bhoi,2016)ⁱⁱ.

Moreover, the Indian Statistical Institute, Kolkata has found that around Rs 400 Crore fake currency was circulating in the economy. With demonetization, it was expected that Rs 4.5 Lakh Crores would be uncovered and more than 86% of the money will be sucked from the system.

People faced hardships by standing in the queues for long periods to get one Rs 2000 note from bank. A blitzkrieg of advertisements from wallet companies and government initiated mobile payment programmes has created awareness and prompted people to try digital mode of payments as it was difficult to withdraw cash from ATMs and banks due to poor replenishment of notes by Reserve Bank of India (RBI).

During the period (Nov-Dec'16), people having online accounts, credit and debit cards could overcome the payment issues utilizing these modes. Gradually, they started patronizing mobile payments modes (e-wallets) like Paytm, Oxigen, MobiKwik, ICICI Pockets, SBI Buddy, Freecharge, Jio Money, HDFC PayZapp etc. to overcome payment issues.

Government on the other hand initiated a number of programmes to help people from all walks of life to go cash-less by introducing Unified Payment Interface (UPI), Aadhar Enabled Payment System (AEPS), Bharat Interface for Money (BHIM),

and Unstructured Supplementary Service Data (USSD). These were apart from the current options available like National Electronic Funds Transfer (NEFT), Real Time Gross Settlement (RTGS), Immediate Payment Service (IMPS), mobile banking and plastic cards linked to banks.

Significance Of Demonetisation

Why demonetization became important and critical all of a sudden? It was suspected that black money, terrorist activities and other illegal activities were rampant with the use of these two demonetized notes.

The figures show that between 2011 and 2016, when economy grew by 30%, the circulation of Rs 500 and Rs 1000 grew by 76% and 109% respectively, indicating the popularity of these notes for nefarious activities. It was also found that Indians preferred using cash for transactions which amounted to 98% in value terms and 68 per cent in volume terms (Das, 2016)ⁱⁱⁱ

Finance Minister Arun Jaitley reiterated that by demonetization, the cash used for bribery, terrorism and for evading taxes would come down to a larger extent (ET,14.12.16). Rogoff (2016)^{iv}, in his book, "The Cash Curse" makes a similar observation by saying that the criminal activities like corruption, tax evasion, sponsoring of terrorism, counterfeiting and human trafficking are the malefic effect of high denomination currency notes and terms the malady as 'curse of cash'.

Objective

To identify and analyse the issues and challenges of digitalization in the wake of demonetization.

1. Current Payment Systems Scenario:

As of October 2016, there were 104 billion debit and credit cards in use, with 90 percent of those transactions occurring at automated teller machines (ATMs) and only 10 to 12 percent using point-of-sale (PoS) terminals (BL,24.12.16). India's top 100 cities have a disproportionate share of the country's 2.3 million automated teller machines (ATMs) and 12 million point-of-sale (PoS) terminals compared to the country's 300 million merchants overall. As per K. Srinivas MD and CEO of BTI Payments, India has 6.25 lakh villages but have only 40,000 ATMs. The

mismatch of POS machines against the merchant establishments shows a yawning gap.

Further, currently there are 69 digital wallet players in the country out of which only 10-12 are active. As per research undertaken by Assocham and research firm RNCOS, the mobile transactions are 300Crore in FY2016 with corresponding value of transactions being Rs 8 trillion (Pani, 2016).^v

As regards internet penetration out of the 130 Crore population, there are only 35Crore (26%) internet users, out of this; about 12.81 per cent users are from rural India (Singh, 24.12.16).^{vi}

To envision Digital India, there are issues to be addressed and implementation could be a big challenge both for government and public at large. Some of the critical ones are mentioned below.

Issues On Digitalisation:

1. Most of the day-to-day transactions are conducted by people in cash.
2. People need to be educated to use mobile payments regularly.
3. Consumers are skeptical about safety and security issues of digital payments.
4. Lack of digital infrastructure to use existing and new modes of payment in rural areas.
5. Digital transactions would become transparent and would bring people into tax net.
6. Merchants too prefer to encourage cash transactions to avoid payment of taxes.

Barriers To Digitalization:

1. Get small businesses like kiranas and street sellers to accept other payment methods.
2. The majority of the population cannot be economically included as long as literacy rates remain low.
3. There is either poor connectivity or none at all in remote locations, making the internet unavailable there.
4. There is not enough access to financial institutions for low-income people and those who live in rural, tribal, or mountainous regions.
5. Fifth, financial dealings aren't always possible around the clock or on vacations.

6. Motivating individuals to think differently about mobile commerce.
7. The seventh goal is to encourage people to feel safe and secure when making digital purchases.
8. Smartphones haven't caught on very much, so that's number eight. In India, just about one-seventh of the population uses them.
9. A comparatively low rate of Internet usage. Among Indians, only 26% routinely utilise.

I. The Existing And New Modes Of Payments

Apart from cash, Indians had access to following modes of electronic and plastic card payments.

1. RTGS/NEFT/IMPS: These can be used during the banking hours with real time transaction having payment limits up to Rs 10Lakhs. Internet connectivity, account number and IFSC are required with two factor authentication. IMPS can be used 24X7 with Rs 2Lakh limit with instant transfer with other parameters being similar to RTGS/NEFT.
2. In case of credit and debit cards, transactions can be made 24x7 online at ATMs and PoS. Requirements include expiry date, CVV, PIN details and Internet connectivity.

In addition to the above government has introduced different payment modes to bring to increase adoption of digital payments.

1. USSD: In this payment mode, the per transaction limit is Rs 5000 with requirement of MPIN/IFSC/Aadhaar/ Account number. Can be transacted using smart or feature phone. The advantage is that there is no need of internet connectivity and is available 24x7.
2. E-Wallets: They can be used 24x7 with instant transactions having a limit of Rs 2000 per month using a Smartphone with internet. One needs to log in and pay.
3. BHIM: It is an app for easy and quick payment transactions using UPI launched by National Payment Corporation of India (NPCI), the umbrella Organisation for all retail payments in the country. One can make direct bank-to-bank payments instantly using mobile number or payment address. UPI interconnects banks and both sender and receiver require a Virtual Payment Address (VPA) identity.
4. Aadhaar Pay: It is a model for merchants based on AEPS. By installing the app on the phone and

with a scanned fingerprint, merchants can accept payments from all Aadhaar-seeded accounts. No card, mobile phone or PoS machine is required (Taruna,2016).^{vii}

That people have already started using the new modes is obvious from the table: 1 which captures the volume and value of transactions for a month between 8th Nov to 7th Dec' 16. UPI and USSD saw highest growth of 677 and 1300 percent respectively as they are linked to BHIM and feature phone transactions while RuPay cards had a growth rate of 503 percent as it is linked to PMJDY Scheme with 19Crores registrations followed by e-wallets with 267 percent growth.^{viii}

Table: 1 Digital Payment Options

Mode	Transaction Volume(L/day)		Transaction Value (Rs Cr/day)		%Growth
	Nov-08	Dec-07	Nov-08	Dec-07	
RuPay Cards	3.85	16	39.17	236	503
e-Wallets	17	63	52	191	267
UPI(Nos)	3.72	48.23	1.93	15	677
USSD	97	1.26	1*	14*	1300
<i>Source: Business Line dt 10th Dec'16</i>					
<i>* Lakh per day</i>					

II. The Digital Drive

Sri Ravi Shankar Prasad, Minister for Law and IT informed on 2nd February'17 that the first requirement of digitalization is to create an infrastructure and announced plans to link about 2.5lakh gram panchayats by an optical fiber network.

In order to expand the digitalization, the Indian government has taken up many initiatives .The precursor to demonetization has been the [PMJDY](#) (Pradhan Mantri Jan Dhan Yojana) introduced in 2014 , under which 26.68Crore accounts have been opened with 21Crores RuPay debit cards having issued to transact business at stores and to draw cash from ATMs as of 11th Jan'16. (Ramakrishna, 2016).^{ix}

The Reserve Bank of India's will set up an Acceptance Development Fund (ADF) to incentivize banks to set up terminals in every village with 2000 or more population. Also, around 1.50,000 post offices are spread across the country for transfer of money.

The rural development ministry has asked Paytm and Oxigen Wallet to help digitize cash transactions of 26lakh Self Help Groups (SHGs) in the country with 3Crore members to educate on digital payments (ET, 21.11.16). *MasterCard has tied up with Confederation of All India Traders*, which represents 5.77Crore merchants, for accepting payments with QR codes (Singh, 2016).^x

The Finance Ministry has requested that all other Ministries and Departments actively encourage their staff to use debit cards rather than cash for personal purchases. A digital tag for electronic payments at toll booths and checkpoints is something that the Ministry of Transportation for the Roads has requested of all automakers.

Payouts to contractors, vendors, and workers of government agencies should be made exclusively through digital payment mechanisms such as Internet banking, universal payment interface, cards, and Aadhaar-enabled payment systems.

The government plans to increase the prevalence of cashless transactions by enlisting kirana stores with Meri Dukaan Digital Dukaan (MDDD), which would be popularised alongside the 'Digital India' emblem in all Indian stores (BL, 7.12.16)^{xi}

CSCs, the National Institute of Electronics and Information Technology (NIELIT), and the Software Technology Parks of India (STPI) are all receiving training so that they may better educate shopkeepers and the general public.

Workshops are being offered in 500 districts and 6,500 blocks, and each CSC village-level entrepreneur is responsible for training 10 shopkeepers in the 2.5 million gramme panchayats. NIELIT will train three lakh students and STPI will be train 37lakh IT professionals. Further, in order to promote cashless transactions and to raise awareness among people Doordarshan has started a free-to-DTH channel called 'DigiShala' (BL, 24.12.16).

III. CASH INCENTIVES FOR USING DIGITAL PAYMENTS

On 25.12.16, the government introduced two schemes—the Lucky Grahak Yojana (LGY) and the Digi-Dhan Vyapari Yojana (DDVY)—to attract consumers and businesses to switch to digital payments at a cost of Rs 340Crore over 100 days. Any consumer-to-merchant, government-to-

merchant, and Aadhaar-enabled digital transactions between November 8 and April 13, 2017 in the range of Rs 50 to Rs 3,000 are eligible for the rewards.

One thousand rupees (Rs. 1.01) will be given away each day to fifteen thousand lucky winners under the LGY, with seven winners being selected each week to receive up to one hundred thousand rupees (Rs. 100,000). Through DDVY, retailers can win up to Rs. 50,000 apiece every week. On April 14, 2017, a Mega award will be given out, with winners receiving one crore, fifty thousand rupees, and twenty-five thousand rupees, respectively (ET, 16.12.16).

The Finance Ministry has also reduced the monetary limit of electronic payments from Rs 10,000 to Rs 5,000 for government agencies to use while making payments to vendors, contractors, grantee and loanee institutions, etc (ET, 6.12.16)

Financial incentives to promote digital transactions across government agencies were recently announced. Use of numerous services will now receive discounts of between 5% and 10%. There will be a half-percent off savings on season tickets from the Railways. In addition, online ticket buyers on the Indian Railways would receive complimentary Rs10 lakh worth of accident insurance. Telecom companies like Bharti Airtel, BSNL, and Reliance Jio are also in discussions with the government about how they might aid in the spread of digital payment methods (BL, 10.12.16).

Fuel purchases from state-owned oil retailers will be discounted by 0.75 percent if paid for online. Paying your Life Insurance Corporation premiums online can save you 10% on general insurance policies and 8% on new life plans.^{xii}

IV. SAFETY AND SECURITY ASPECTS OF DIGITAL PAYMENTS

With increased use of technology, the chances of fraud and hacking of personal accounts is a possibility and cannot be overlooked. Incidents like Wiki leaks, hacking of US Democrat Hillary Clinton emails, data breaches at LinkedIn and credit/debit card information of lakhs of people have shaken the confidence of IT experts and consumers alike, revealing that no data base can be considered as safe. In a similar incident, the mobile wallet provider Paytm recently lost almost Rs 6lakh due to insiders' collusion with dishonest clients.

The same goes for point-of-sale terminals and ATMs. About 26.68 Crores worth of RuPay debit cards are associated with PMJDY, making them vulnerable. Even though mobile wallets are a newer payment method than credit cards, over a lakh consumers still reported fraud in 2017. As the number of people using mobile payment systems grows, so too will the number of potential cyberattacks. (BL, 19.12.16)

For example, JLT Independent Insurance Brokers' head of financial lines, Amit Agarwal, has stated on the record that mobile wallet companies lack a risk mitigation plan and cyber insurance, leaving them open to cyber assaults. Such findings were published in 2017 by (Chandrashekar & Ghosh).^{xiii}

Government is seized of this reality and hence has taken steps to address the same by starting a separate Digital Payments Division in India Computer Emergency Response Team (CERT-In). Cyber security auditors are also being appointed. A new [technology](#) center Botnet is being established to remove automatically any system having a malware. Further, IT law is being studied thoroughly for reinforcement and stricter regulation due to expansion of digital payments.

Conclusions

Demonetization in its wake has ushered in digitalization. Government has taken many initiatives starting with PMJDY which was a precursor to financial inclusion. New payment modes like BHIM, USSD, Aadhaar based RuPay cards and e-wallets are going to lead the way towards less-cash economy. Apart from massive training programmes, safety and security aspects of digital payments are also being put in place seriously to avoid any breach which may jeopardize 'Digital India' movement. Though it may be seen as a bitter pill, demonetization is expected to eradicate the malaise of parallel economy and other ailments plaguing India and would usher in a successful digital economy in the near future.

Suggestions

1. Financial inclusion is must for digitalization.

India being a vast country with a huge economic divide requires population to have access to banking

and financial services. With PMJDY and Aadhaar cards, part of the population is covered. Lot needs to be done by the state and central government to achieve this dream. According to Rogoff (2016), India lacks the necessary financial inclusion infrastructure to make the shift to a cashless economy.^{xiv}

2. Digitalization is to be implemented systematically as it takes time for people to change their mind-set.

People do not change their habits overnight. Having accustomed to handling cash, new modes of payment will take time for them to patronize. According to Arora(2016)^{xv}, the widespread adoption of electronic payments across industries will begin with an incremental increase in the number of individuals using formal banking services, and then accelerate as new payment methods become the norm. The secret to its success is methodical implementation.

3. If we want to make it easy for as many individuals as possible to use our services, we need to provide a variety of payment options.

The urban- rural duality would throw up many challenges for digitalization. Literacy rates, internet penetration, safety, cultural attitudes require different modes of payments. According to Vasa(2016)^{xvi}, India is not a market of 'one-shoe-fits-all,' but rather requires multi-fold solutions for each segment and section of society. Today, more than ever, simple payment options are essential.

4. High cost of PoS and merchant discount rate (MDR).

One of the main reasons for traders and merchants not interested in installing PoS machines are the cost of the PoS and the charges for transactions they have to bear. Each mobile PoS machine costs Rs 1500-2000 with the terminal charge being Rs 150 per month and the merchant discount rate (MDR) or the share of the bank and other players per transaction is around 1% of the bill if it is above Rs 2,000 and 0.75% if the transaction value is less than Rs 2000. The cost of installation and operation of PoS machines have to be reduced to encourage usage and also allay their fears of falling in tax net.

5. Removal of constraints for making India a less-cash economy.

The challenges envisaged for digital payment expansion is infrastructure. ATM and PoS machines have to be installed for easy access. New modes of payment should be made user friendly within the boundaries of security systems. Rural and urban poor must be educated on their regular usage. It is to be noted that there are 150 ATMs per million people in

India compared to 350 per million in China and 1000 per million in USA(Gill,2016)^{xvii}

Every new movement needs an inflection point for mass adoption and with regard to digitalization all stakeholders, namely, the government, RBI, industry players and consumers have to join hands to make it a success for an economically stronger India.

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