

India's Move towards Cashless Economy- Options and Status

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Abstract

The present paper examines the recent scenario of government move towards cashless economy in the realm of demonetisation in India. Various initiatives have been undertaken through diverse channels to promote the usage of digital modes to carry out financial transactions to reap the benefits of cashless economy in terms of cost savings, transparency and efficient governance. However, the efficacy of digital channels for electronic payments hinges on multi dimensional aspects. The present paper highlights the growth trends and patterns of digital payments through various options as well as emerging bottlenecks in the path of realising the goals of cashless economy.

Keywords: Demonetisation, Cashless Economy, Digital Payments.

Introduction

With the government move towards cashless economy in the realm of demonetization has necessitated the use of digital modes of payments. The surge towards digital transactions to ensure transparency by curbing black money, corruption and reducing cash use related costs have given a substantial push towards the development of cashless economy. Besides demonetization, there are also other drivers that are promoting digital transactions including advancements in ICT, digital banking, e wallets, penetration of smart phones, rise in the e commerce industry etc. have fuelled the growth and scope of digital modes of payments. Moreover, various efforts of government and RBI for enhancing financial inclusion have supported the goals of making India a cashless economy.

With the aforementioned measures and developments, the Indian economy is set to move ahead towards cashless economy. However, attaining the targets has multi dimensional socio-economic bottlenecks. Despite of the diverse efforts, the proportion of non cash transactions is quite low as compared to the developed as well as developing economies. India's cash to GDP ratio is 12 percent which is quite high among cash intensive nations of the world. In order to make such high cash intensive economy- a cash less economy, strategic preparedness is of utmost importance. In this given perspective, the present paper focuses on identifying the growth drivers, trends as well as constraints regarding use of digital modes for financial transactions in India. The paper also suggests measures to realise the goals and reaping the benefits of cashless economy. The paper is descriptive in nature, based on secondary data taken mainly from the various publications and research agencies. The remaining paper is organized in the following mode. Section II deals with the

conceptual framework based on the review of literature concerning cashless economy. The growth drivers and trends have been discussed in Section III. The key issues of concern regarding cashless economy have been explained in Section IV of the paper. Section V concludes the paper with suggestive measures as well as further scope of research in this area.

Cashless Economy – Review of Literature

The payment system of a country is a key determinant of its monetary policy and financial stability. Across the globe, there is notable consideration to explore the option of moving towards a cashless economy owing to the demerits of cash based transactions. During the last couple of decades several options for payment methods have been devised. Cashless economy will have apposite control mechanism for ensuring economic uniformity in the world. Cashless economy is capable of curbing illegal practices like crime, illegal drug trade, terrorism, illegal immigration, human trafficking, and corruption (Basir, 2009 and Olusola et al., 2013). Cash being costly mode, there is need to move for a cashless payment system to reduce cash management cost and tax avoidance by assimilating the parallel economy within central domain (Das and Agarwal, 2010-Payment card August 31).

A plethora of innovative modes based on technological advancements for e payments have been launched to make use with convenience and ease. This paradigm shift presents both challenges and opportunities. The key challenge is higher dependence on cash owing to its acceptance, speed and control. However, to ensure cashless there is dire need to evolve efficient, reliable and safe payment modes (RBI, 2012 and Ernest & Young 2013).

Kapoor (2016) opines that added use of digital platforms will smooth the progress of India's move to a cashless society and it would be a significant contributor towards the growth of GDP. Further, it will bring digital financial revolution in the economy as with 1 percent reduction in cash circulation results into increase of 0.4 percent in GDP.

According to a study by Mckinsey & Co. (2015), the growing adoption of digital channels for payments is increasing owing to technological advancements, which will double the card payments by 2019. Similarly another study by Ernest and Young (2016) observes that payment scenario is transforming in India by moving for cards and mobile based transactions. However, despite of the government measures, the cash circulation in India is highest among emerging economies.

There is significant relationship between e payments and GDP growth as exhibited by the research at international level. Presently, the Indian economy witnessing high GDP growth coupled with a mobile revolution resulting in over 700 million, PoS, ATM, branch expansion, rise of ecommerce industry and the diffusion of e wallets. Additionally, enhanced urbanisation and industrialisation is fuelling the growth of a middle class society of over 300 million with the projected growth of household income by three times in the next two decades and thereby making India the world's 5th largest consumer economy by 2025 which is presently on 12th number (Namburi, 2011)

According to an estimate, the RBI spend 21,000 crore as cash management costs per annum. Besides the cost, there are also other adverse impacts of intensive cash uses like higher share of unorganised sector, black economy, tax avoidance, illegal trade practices etc. (Mazzotta, et al. 2015 and PWC, 2015).

The above review of literature explains about rationale, benefits and challenges of cashless economy. The present study focuses on the India's status for shifting towards cashless economy, which is missing in the above studies. Hence it is expected it would fill the research gap in the Indian scenario.

Growth Drivers and Trends towards Cashless Economy

In order to achieve the mission of cashless economy, the Government of India has instigated various modes of digital transactions and most recently in the course of the move of demonetisation. These efforts have been further driven by different factors besides demonetization, discussed as follows:-

Demonetisation - The recent move of demonetisation is a progressive step towards attainment of the goals of cashless economy in India. The government has initiated various steps and measures to enhance the adoption levels of digital payments to ensure maximum number of non cash based transactions to mitigate the ill effects of cash economy such as black money illegal trade, counterfeit notes, corruption, terror funding, drugs financing etc. Indian economy is highly cash intensive economy as presented in Table 1. In India, cash as percentage volume of consumer payments ratio is 98 percent and cash as percentage value of consumer payments is 69 percent. On the other side, in U.K., the ratio is 48 percent and 11 percent; in U.S.A. the ratio is 55 percent and 14 percent respectively. Therefore, in order to lessen cash based transactions, the move of demonetization coupled with enhanced use of digital modes of payments to ushering cashless economy. It is expected to provide benefits in long run in forms of higher tax compliance, increase in tax to GDP ratio and more tax collection.

Table-1 Use of Cash in Consumer Transactions

Country	Cash as Percentage Volume of Consumer Payments (%age)	Cash as Percentage Value of Consumer Payments (%age)
United Kingdom	48	11
USA	55	14
Australia	65	20
Brazil	85	38
Japan	86	43
China	90	45
South Africa	94	41
Mexico	96	57
India	98	68
Indonesia	100	69

Source: PWC (2015).

Technological Advancement – Owing to the swift and vast technological advancements particularly in the area of ICT have fuelled the growth of digital payments. The increased penetration of internet and smart phones has facilitated the

access to digital platforms with more ease and convenience. It resulted into user friendly mode of making online payments to gain the benefits of time savings and expediency.

Table-2 Mobile Phones, Smart phones and Internet Users in India

Year	People	MobilePhone Users	Internet Users	Smart phone Users
2015	1250 Million	1000 Million	300 Million	240 Million
2020	1350 Million	1200 Million	650 Million	520 Million

Source: BCG (2016).

Table 2 exhibit the penetration level of internet and mobile phone users in India as well as the expected level in the year 2020. Accordingly, in 2015 the number of mobile phone users was 1000 million, internet users 300 million and smart phone users were 240 million. It is further estimated that these numbers would grow substantially in 2020 whereby mobile phone users will count 1200 million, internet users by 650 million and 520 million smart phone users. This level of penetration along with higher share of younger demographics is a significant catalyst for shifting towards cashless transactions with the use of technology.

Rise in E Commerce Industry - The exponential growth in e commerce industry is also a vital contributing factor towards the rise in the use of digital channels for initiating the online payments. Enhanced use of mobile phones for online shopping has provided ease and comfort for convenience shopping through finger stroke. The industry is expected to gain higher scales in future owing to increased share of internet and mobile phone users as explained above. According to Assocham-ricewaterhouse coopers study, India's e-commerce industry is expected to grow a compounded annual growth rate (CAGR) of 35 percent over

the next five years. The sector is estimated to gain 72 percent increase in the average annual spend on online purchase per individual from the current level of 65 percent. Another study by e marketer predicts increase in digital buyers to 329 million by 2020 which is 130 million in 2016. The astounding progress of e commerce industry is proving a big game changer ahead for digital payments by offering cash back incentives and discounts on using debit cards, credit cards and mobile wallets for making payments.

Digital Banking – The banking sector in India has witnessed significant revolution in terms of use of ICT for providing banking services aiming at covering maximum people to attain the goals of financial inclusion. Various e delivery channels have been launched such as internet banking, mobile banking, Debit and Credit cards, RTGS, NEFT etc. There is manifold expansion in the use of such channels in the recent years and rising trend is expected in the future also in the wave of demonetization. There is also tremendous rise in the use of mobile banking as revealed in Table 3. A larger numbers of customers are using mobile banking due to time saving and convenience. Hence, mobile phone is also adding its utility in the form of a bank and wallet

Table- 3 Mobile Banking Users in India

Year	Numbers	Value
2012-13	1124	60
2013-14	2367	224
2014-15	6022	1035
2015-16	10394	4018

Source: RBI (2015).

Table 4 depicts the number of transactions through the use of debit cards and credit cards. It clearly shows the increasing trends in using the debit cards and debit cards. Similarly, Table 5 and Table 6 demonstrate the usage pattern of debit

cards and credit cards respectively. The use of debit cards is largely used at ATMs whereas credit cards are largely used at Pos (Point of Sale).

Table-4 Number of Debit and Credit Card Transactions

Year	Debit Cards (Million)	Credit Cards (Million)
2012-13	3,575	243
2013-14	6,904	503
2014-15	7,804	619
2015-16	9,263	790

Source: RBI (2015).

The percentage use of debit cards usage as ATMs during 2014-15 was 94.83 percent and at PoS it was 5.17 percent. On the other hand, percentage of total credit card usage at

ATMs during 204-15 was 1.22 percent and at PoS it was 98.78 percent.

Table-5 Usage of Debit Card

Year Wise Usage	2012-13		2013-14		2014-15	
	Volume (Million)	Value (Billion)	Volume (Million)	Value (Billion)	Volume (Million)	Value (Billion)
%age of Total Debit Card Usage at ATMs	92.18	95.73	90.77	95.37	89.65	94.83
%age of Total Debit Card Usage at PoS	7.82	4.27	9.23	4.63	10.35	5.17

Source: RBI (2015).

Table 6: Usage of Credit Card

Year Wise Usage	2012-13		2013-14		2014-15	
	Volume (Million)	Value (Billion)	Volume (Million)	Value (Billion)	Volume (Million)	Value (Billion)
%age of Total Credit Card Usage at ATMs	0.63	1.16	0.58	1.08	0.69	1.22
%age of Total Credit Card Usage at PoS	99.37	98.84	99.42	98.92	99.31	98.78

Source: RBI (2015).

E Wallets - The innovation of e wallets have also pushed the growth in terms of users for making digital payments. E wallets are prepaid payment instruments (PPIs) to making online payments and are different from the wallets issued by the banks. Usually, Mobile wallets are issued by banks or by authorised non-banking institutions having the benefits in terms of fund transfer limits and cash withdrawals. On the other hand, wallets issued by non-banking institutions do not provide cash withdrawal options. As per the RBI guidelines, PPIs are issued under the Payment and

Settlements Systems Act, 2005 and that assist purchase of goods and services and including funds transfer. Such instruments can be issued as smart cards, magnetic stripe cards, internet wallets, mobile accounts and any such instrument which can be used to access the pre-paid amount. Unlike other pre-paid payment instruments, e-wallet is only an internet based online account (Kumar, 2016). Table 7 exhibits the usage of PPIs in terms of numbers and value. It indicates rise in the usage in terms of value compared to the numbers.

Table - 7 Usage of Prepaid Instruments (in million)

Year	Numbers	Value
2012-13	897	60
2013-14	431	57
2014-15	596	187
2015-16	618	462

Source: RBI (2015).

RBI Measures - The RBI has initiated a variety of options to realise the goals of financial inclusion in order to make financial transactions in digital form. The licensing of payment banks and establishment of National Payments Corporation of India (NPCI) are the most significant measures adopted by the RBI. NPCI has been established in cooperation of the Reserve Bank of India (RBI) and Indian Banks' Association. NPCI received the Certificate of Commencement of Business in April 2009. NPCI aims to generate infrastructure for payment services by functioning in the payment industry in India. NPCI has initiated various innovative digital channels to cover maximum people in the ambit of digital transactions. It includes UPI (Unified

Payment Interface), Immediate Payment Service (IMPS) , Bharat Bill Payment System (BBPS), Aadhaar Payment Bridge System (APBS), Aadhaar Enabled Payment System (AEPS), Cheque Truncation System (CTS), National Automated Clearing House (NACH), *99# service for mobile banking without internet, Jan-Dhan Yojana , RuPay etc.

Further, the approval to payment banks is another significant step towards financial inclusion. These banks can accept deposits up to one lakh. However these banks cannot issue loans and credit cards. RBI approved 11 enterprises to set payment banks in August 2015 and 10 small finance banks in September 2015. As opposed to the traditional banking,

where lending is a key function to generate revenues, Payments Banks will develop multiple models to provide basic banking services, remittance and payments requirements through technological innovations to lessen operational costs. Payments Banks are mainly meant for India's migrant labourers, low-income households and small businesses to which savings accounts and remittance services can be offered at lower transaction costs. It is expected that Payments Banks will enhance the scope of financial services among the low income customer groups by using technology and vast geographical access (Ernest & Young, 2016).

Recently, in the shift towards demonetization, the RBI and government have offered incentives through various schemes to promote the use of digital channels for financial transactions including luck draw schemes for customers and businessmen, tax incentives for small traders and discount offers on specific transactions carried with the use of digital modes of making payments.

Key Issues of Concern

As mentioned earlier, cashless economy offers both opportunities and challenges. Despite of the available options and measures as discussed in Section III, the adoption level of digital channels is quite low and not sufficient to achieve the goals of cashless economy. There are various challenges that hinder the growth of cashless economy, explained as follows:-

Inadequate Infrastructure - The state of infrastructure availability in terms of internet access, ATMs, bank branches, e payments terminals particularly in semi urban and rural areas is a key issue of concern, constraining the growth of digital payments. The internet speed in India is quite low and connectivity is regularly disturbed that makes online payment process- a tedious task.

Increased Share of Rural Population – The majority of Indian population belong to the rural areas and even they deprived from the basic banking services owing to the lack of banking facilities in remote areas. Rural population is already facing the problems concerning basic necessities and thereby having low level of income and literacy. It is also a daunting task to incorporate such population in the main stream of banking and digital economy.

Low Level of User's Confidence- No doubt, India has gained significantly in term of technological developments but at the same time, there are also rising cases of cyber crimes and frauds. Such malpractices shackle the confidence and faith while using digital modes for making payments. A recent report estimates that around 40 percent of cyber crimes are related with the misuse of debit and credit cards. Such insecure systems lessen the confidence among users and thereby people prefer cash based transactions.

Large Unorganised Sector - The Indian economy consists a large share of unorganised sector dominated by small traders and vendors. Majority of the population is employed in the organised sector. Cash powers in this sector. Owing to the intensive cash use in this sector, it is a great challenge to transform their entire process from cash to non cash based mode.

Transactional Cost – Digital payments involves cost that is another area of concern that pushes back the use of digital payments. On the contrary, cash transactions are free of cost and mostly preferred.

Low Level of Digital Literacy - The digital literacy even among educated persons is quite low. Most of the people hesitate to use even the debit cards. The Indians are habitual towards cash based transactions and are less inclined for making digital payments. This problem is quite severe in the rural areas and remote areas.

Conclusion and Suggestions

No doubt, after the demonetization announcement there is upsurge in the usage of digital channels for payments. However, there is further need of massive efforts to ensure the adoption of cashless modes of payments. In order to augment the adoption level of digital payments, there is a dire need to address the issues of concern such as digital literacy, infrastructure developments, safety, access, reliability and moreover educating the people about benefits of cashless economy to make them confident about their financial security as they feel comfort on cash based transactions. The government must organise mass digital payment awareness programmes aiming at individual access to the uses particularly in the rural and semi urban areas. There is also need to expand the infrastructures required to ensure wider access of digital modes for carrying out the transactions without and problem, inconvenience and extra cost. Moreover, co-ordinated efforts combining all stakeholders need to be initiated combating the adverse issues to realize the vision and mission of cashless economy. Further, research can be undertaken in the area of adoption level regarding digital payments in the rural areas. Another research area can be the cyber security in the context of online modes of payment for ensuring security and reliability.

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