

Digitalization of Economy and Electronic Payment System – Overcoming the Challenges for India

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Abstract— One of the foremost important and flagship objective of the Government of India is Digital India. It can be seen that Government has been conducting various experiments for making Digital India, some were successful while other failed. At present it would be difficult to declare the success, however, an attempt of making India a “Cashless, Paperless and Faceless” economy, at least made the country move some step toward the goal. The present paper endeavors to throw some light on the concept of “India as a Cashless Economy” and efforts to understand the challenges of this transition phase. The research design is exploratory. An attempt has been made to relook the system of cashless payment with an objective to review how the challenges may be overcome. The data used is secondary from RBI website as well as from various online sources.

Keywords- Cashless payment, digitalization of economy and electronic payment.

I. CASHLESS PAYMENT SYSTEM – AN OVERVIEW

Cashless Economy as the name suggests is systematic arrangement where the currency notes and coins are not in circulation and the commercial transactions are made through the means other than cash such as debit / credit cards, electronic fund transfer through banks or virtual wallets. This happens through digital transfer of information through the banks, who are custodian of credits earned by their clients through various modes. The Reserve Bank of India, has classified payment system in three broad categories namely, paper based payment system, electronic payment system and other payments system. (RBI, 2009). The cashless economy facilitates easy circulation of money throughout the financial system of an economy thereby providing transparency in payments and increases velocity of money.

The Paper Based Payment system includes the transactions through cheques, demand drafts and other paper based instrument, which are significantly important for country like India where the major transactions are handled through these instruments. In order to expedite the processing of paper based instruments, Magnetic Ink Character Recognition (MICR) technology was introduced. Afterwards there had been a significant development in clearing system which introduced, High Value Clearing, Speed Clearing and incorporation of CTS-2010 standards. The RBI has been discouraging the paper based and currency based transactions

because of which the popularity of electronic transactions gained importance.

The Electronic Payment system consist of payment through Electronic Clearing Service (ECS) introduced in 1990 and was upgraded in 2008 as NECS facilitating multiple credits across multiple clients across the country for repetitive transactions. Thereafter, Electronic Fund Transfer (EFT), National Electronic Fund Transfer (NEFT), Real Time Gross Settlement (RTGS), Immediate Payment Service (IMPS) and Bharat Interface for Money (BHIM) based on Unified Payment Interface (UPI) were introduced by the time.

Other Payment system involves the payment through Prepaid Payment Systems, Mobile Banking System and ATMs / Point of Sale (POS) Terminals / Online Transactions. Prepaid instruments store the value through transfer of funds from bank accounts, through which is subsequently used to facilitate transactions against purchase of merchandise and services. Debit cards, credit cards, magnetic strip cards, internet wallets, mobile wallets are examples of prepaid payment modes.

The modes of electronic payment and other payment system are the real cashless mode of payments, which are further classified as closed, semi-closed and open, based on transfer of money (Dave, 2016). The closed cashless mode does not allow cash withdrawal. It means that once money transfer to such wallet cannot be transferred back to the bank. The client

has to spend money only for the purpose for which it has been transferred. Ola Money is an excellent example of closed cashless mode. Semi-closed cashless mode though does not allow cash withdrawal, however allows to spend money for any other transactions also. These are also called virtual wallets. MobiKwik, Freecharge, Amazon Pay, PhonePe are examples of Semi-closed mode of cashless transaction instruments. Open mode as the name suggests allows the two way transfer of the money. These allows transactions for purchase / sale, fund transfer from one person to other and also to and from the bank account of the holder. For the purpose of efficient operation of banking and electronic payment system, the Reserve bank of India has issued circular RBI/2015-16/65 DPSS.CO.PD.Mobile Banking.No.1/02.23.001/2015-16(RBI, Master Circulars, 2015).

Most of the well developed countries of the world have already adopted cashless. Sweden marks for 97% transactions cashless while in Denmark 1/3 of the population does mobile banking. In Belgium also 97 % of the population prefer cashless transactions and banks in Norway discourages payment on cash.

II. DEMONETIZATION – A THRUST TOWARD GOING CASHLESS

The demonetization announced on 8th November 2016 was an unprecedented move by the Government of India where in the currency notes of Rs 500 and Rs 1000 no more remained legal tender. There were various objectives of demonetization, the primary was curbing black money and checking circulation of fake currency whereas it also aimed at promoting cashless transactions, thereby moving towards cashless economy. Though India was moving towards cashless but demonetization acted as a catalyst in the same. Those who were hesitant of using online payment had no option but to learn the same. The business of virtual wallets suddenly boomed and the use of credit card, debit card, NEFT and all types of electronic payment system became active which can be witnessed by the data as shown in Annual Reports of Reserve Bank of India as shown in the Table 1.

According to Annual Report 2017-18 of Reserve Bank of India published on 29th August 2018, the pace of increasing digital transactions was maintained by the Department of Payment and Settlement Systems (DPSS) who continuously worked for the preset strategic initiatives. The Payment and Settlement Systems in India: Vision 2018' document targeted some goals which includes decreasing paper-based clearing instruments with consistent increase in retail electronic payments through NEFT, IMPS, RTGS, card transactions and mobile banking. It also aimed at increasing the mobile banking customer base by developing appropriate infrastructure for electronic payments.

From Table 1, the electronic payment logged a robust growth in 2017-18, with increase in both volume as well as value recording a growth of 44.6 % and 11.9 % respectively, which was 56.0 % and 24.8 %, respectively, in 2016-17. The portion of payments through electronic mode in the total volume of retail payments increased to 92.6 % in 2017-18, up from 88.9 % in the previous year with a corresponding reduction in the share of paper based clearing instruments from 11.1 % in 2016-17 to 7.4 % in 2017-18.

Amongst various electronic methods of payments, RTGS handled 124 million transactions valued at Rs1,167,125 billion in 2017-18, more from 108 million transactions valued at Rs981,904 billion in the 2016-17 as shown in Figure 1 below:

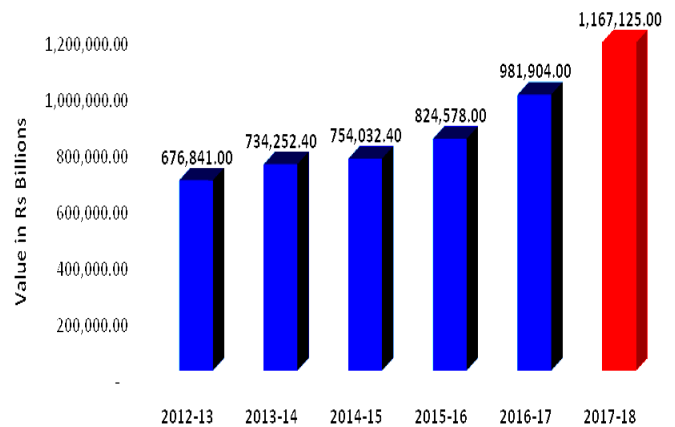


Figure 1. RTGS Payment

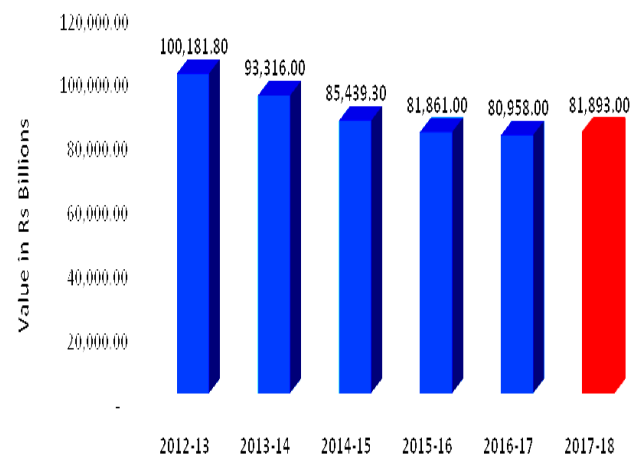


Figure 2. Total Paper clearing

The NEFT system handled 1.9 billion transactions valued at around Rs8,925 billion in 2017-18, up from 1.6 billion transactions valued at Rs4,116 trillion in year 2016-17, thereby recording a growth of 20 % in volume and 43.5 % in value. By the end of financial year 2017-18, the facility of

NEFT could be availed through 1,40,339 branches in 192 banks. This can be seen clearly in Figure 2.

Table 1: Payment made through Electronic Modes (In Rs Billion)

Item	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
RTGS	676,841.00	734,252.40	754,032.40	824,578.00	981,904.00	1,167,125.00
NEFT	29,022.40	43,785.50	59,803.80	1,622.00	4,116.00	8,925.00
Credit Cards	1,229.50	1,539.90	1,899.20	2,407	3,284	4,590
Debit Cards	743.4	954.5	1,213.40	1,589	3,299	4,601
Prepaid Payment Instruments (PPIs)	79.2	81	211.9	488	838	1,416
Total Card Payments	2,052.10	2,575.40	3,324.50	4,483	7,421	10,607
Total Retail Payments	134,115.00	143,747.70	154,129.30	1,77,752	2,20,703	2,85,612

Source: Compiled from RBI Annual Reports 2016-17 and 2017-18

During 2017-18, there was tremendous increase in the number of transactions through plastic money. The volume of transactions with credit cards and debit cards was recorded to be 1.4 billion and 3.3 billion, respectively. The details can well be understood from Figure 3:

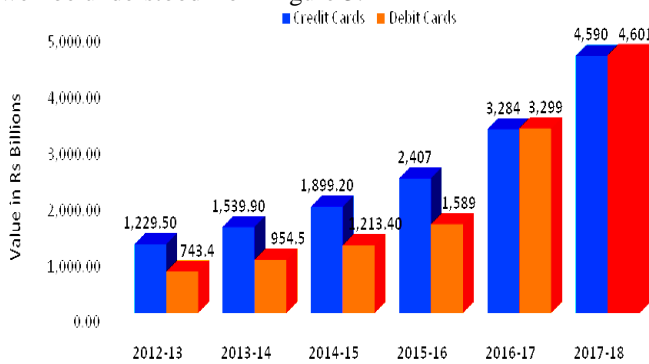


Figure 3. Credit and Debit card payments

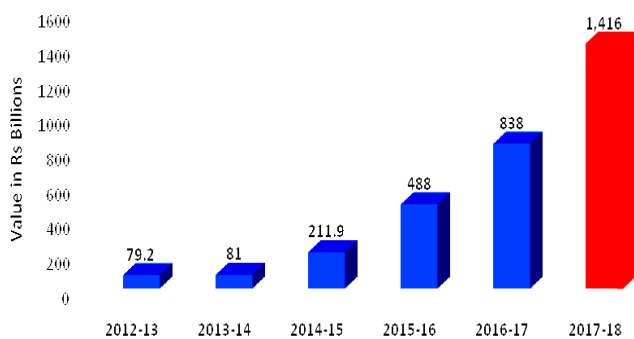


Figure 4. Prepaid payment instruments

The Prepaid payment instruments i.e., Mobile Wallets, App based Payments, BHIM etc also documented a volume of about 3.5 billion transactions, which was valued worth

Rs1,416 billion as compared to Rs 838 in previous year. The Mobile banking services also witnessed a good growth of 92

per cent and 13 per cent in terms of volume and value, respectively. There was a remarkable increase in the number of registered customers of mobile banking by 54 % as compared to previous year numbering 251 million by March 2018 end as compared to 163 million at previous year end. Figure 3 clarifies the above data.

From the above data and discussion, it can be clearly observed that the demonetization played a significant role in paving the growth towards cashless economy. But at the same time it would be so early to declare how well has it addressed primary purposes.

According to (Maji, 2017), the registered user of Mobikwik – A mobile based payment wallet, has increased to 65 million which has more than doubled after demonetization. Though after restoration of cash, the peak of transaction came down but the momentum has trained the public at large about the use of online payment system. Now a lot of people are regularly using mobile wallets for availing large variety of financial and non-financial services which includes online recharging mobiles, payments for utility charges, booking travel tickets, movie shows as well as for eating out.

III. BENEFITS AND CHALLENGES OF CASHLESS TRANSACTIONS

Going cashless has its own benefits and challenges, especially for a Cash Prominent country like India. The Government of India also planned to go cashless with lot of planning. It started with the policy of financial inclusion typically called as Jan-DhanYojana followed by giving

licenses to Payment Banks. It has also been promoting mobile banking by one or other way.

Promoting cashless transactions will be beneficial for the country in various ways. According to Economic Survey 2018, the tax base is required to be increased. The number of tax payers are only 4% which is targeted to be increased to 23 % by 2020. Moving to cashless economy will help in increasing the transparency and accountability, thereby increasing the tax base of the country. The cashless transaction emphasis on ease of doing financial transaction thereby increasing the rank in Ease of Doing Business in India. This will save time and money being in a queue for cash withdrawal as well as checking the risk factor of carrying huge amount of money otherwise.

It also reduces cost of printing, security and circulating currency in the economy. Inserting security features in the currency needs to have a immense Research and Development initiatives which are quite expensive. This will help in checking money laundering activities such as hawala transactions, financing terrorism and checking black money menace, drugs smuggling and human trafficking.

It is not easy to implement cashless economic system in the country. There are various challenges in the same of which foremost important is adequacy of financial and IT infrastructure which is a costly venture. The number of ATMs and POS terminals are required to be increased, besides the internet service connectivity of the country needs to be adequate. Presently only 2.3 laksa ATMs and 14 lacks POS are there. Further these are concentrated more in urban areas than rural ones. Most of the people are using ATMs to withdraw money from banks and then spend the cash for their day to day transactions which is also a problem as it results in leakage of money. Customer awareness is another challenge before going cashless. The areas where literacy rate is very less, it is difficult to spread awareness about cashless economy and its benefits. The general public are not aware of the new technology instruments and how to use the same. Even in urban area, people are hesitating in using innovative services. This has to be involved through education system at school levels.

Digital and cyber security is another important problem of cashless economy. The police administration is even not appropriately ready to fight with it.

IV. GOVERNMENT'S INITIATIVES TO FACILITATE CASHLESS ECONOMY

Government has taken various steps for meeting the challenges of going cashless. As an initiative it gave license to 11 payment banks in August 2015. A substantial rebate in excise duties have been announced for installing POS

machines. For increasing awareness amongst public, regular camps are being organized where in banking and financial literacy is imparted. Pradhan Mantri Jan DhanYojana is another important step of the government towards inclusion of financially excluded people. The government also launched RuPay, UPI, USSD, e-wallet and aadhar related payment system to make the public comfortable in doing the transaction. Various schemes of promotion such Lucky GrahakYojana and Digi-DhanVyaparYojana are also launched by the Government. Rebates and discounts on various services and products are also announced by the government such as 0.75% rebate in form of cash back on purchase of fuel through electronic payment, discount of 0.5% on electronic payment of tickets through IRCTC app, 10% discount on National Highway toll payment have been launched.

V. CONCLUSIVE REMARK

From the above discussion it can be concluded that in order to be in line with advancement in the world, adoption of cashless economic system has become the need of them time. Where it seems very lucrative to adopt cashless economy at the same time there are lot of challenges in its effective implementation especially for India, being cash prominent country. But is is not impossible if all the stakeholders join their hands together for the development of the country at large.

REFERENCES

- [1] Dave, R. (2016, November 23). 3 Types of Cashless Transaction Options via Prepaid Payment Instruments for you. Economic Times - ET Prime, p. Editorial. Retrieved September 19, 2018, from <https://economictimes.indiatimes.com/wealth/spend/a-look-at-various-cashless-options/articleshow/55508641.cms>
- [2] Maji, P. (2017, November 8th). Demonetisation Keeps Digital Payments up; Cashless Transactions Grow 13.5% in September 2017. Business Today. Retrieved September 20, 2018, from <https://www.businesstoday.in/money/banking/demonetisation-digital-payments-cashless-transactions-ewallets-credit-card-debit-card-paytm/story/263466.html>
- [3] RBI. (2009). Payment and Settlement Systems. Retrieved September 19, 2018, from Reserve Bank of India: https://www.rbi.org.in/scripts/PaymentSystems_UM.aspx
- [4] RBI. (2015). *Master Circulars*. Retrieved from Reserve Bank of India: https://rbi.org.in/SCRIPTS/BS_ViewMasCirculardetails.aspx?id=9869

Authors Profile

Dr. Manvinder Singh Pahwa, B.Com, M.Com., Ph.D., ACS, PGDIB, PGDHR, LL.B., LL.M. M.B.A (Gold Medalist), an eminent academician with a rich experience of 18+ years which is a rare blend of academia, industry, corporate consultancy and research. Presently, he is working as an Associate Professor-Senior Scale School of Business and Commerce, Director, Alumni Relations at Manipal

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