# DIGITAL INDIA TO CASHLESS INDIA – A STEP TOWARDS FINANCIAL INCLUSION RAJKUMAR RAYABHARAM, Associate Professor, AUROBINDO INSTITUTE OF COMPUTER SCIENCES, Hyderabad (TS) e.mail:profrrajkumar@gmail.com

#### ABSTRACT

People are reluctant to try new things unless it becomes necessary. The demonetization of India's two largest currency bills, accounting 86% of the total circulation in the country nudged a larger number of individuals to lessen their dependence on cash transactions and resort to digital payments. In fact India has evolved as a 98% (by volume) cash-based economy, accounting for more than 70% of the total transactions (by value). Low penetration of non-cash instruments, lack of confidence of the public on digital payments, etc are the biggest barriers for transition into cashless economy. This paper cover all the details on the key challenges in india in the process of emerging as cashless India and also Cases of few countries which adopted digital instruments to go cashless are taken to understand and what can India do to adopt the same to make our economy driven more digitally.

Keywords:- Casheless economy, POS, M-Pesa, IMPS, RTGS

#### Introduction

Cashless Economy is when the flow of cash within an economy is non-existent and all transactions have to be through electronic channels such as direct debit, credit and debit cards, electronic clearing, and payment systems such as Immediate Payment Service (IMPS), National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS) in India. As of now, Cashless Economy has only academic importance. The Indian Economy continues to be driven by the use of cash; less than 5% of all payments happen electronically. in India, the ratio of cash to gross domestic product is 12.42% in GDP, which is one of the highest in the world. It was 9.47% in China or 4% in Brazil. In fact India has evolved as a 98% (by volume) cash-based economy, accounting for more than 70% of the total transactions (by value).Moreover Indians prefer Cash over electronic transactions. Because of the following reasons:

Firstly, lack of access to banking leaves no option other than cash for a large fraction of the population. Secondly, since, there are no extra transaction costs in Cash payments, it affects the consumer behavior. Electronic payments had been so far unviable for small value transactions but

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things are changing fast. Thirdly, Cash provides flexibility and simplicity as a transaction needs only moving from one hand to another, there are no worries about crashing of computers and losing the transactions. Fourthly, India has a large unorganized sector with overwhelming majority of retailers, suppliers and service providers. They have neither the infrastructure to offer card-based transactions nor the inclination to encourage consumers to pay by credit cards or debit cards. Lastly, the lack of education / awareness among consumers regarding use of cards.

## The Scope of cashless economy

The expansion of telecom and smart phones would provide a digital shift to the economy in near future. The private sector the driver of this change. Government is also mulling to provide incentives for electronic payments for example waiver of tax when electronic settlements are used. The private sector has to come forward to drive the change. Apart from this government should also give incentives for electronic for electronic transactions.



## Why cashless economy is a challenging challenge to india ?

"According to a survey conducted by MasterCard in 2013, Singapore and Sweden lead the list with 60% cashless transactions while India is way behind with 2% cashless transactions. While Sweden is nearing 99% cashless transactions, India has a long way to reach at-least 50% cashless economy".

#### Challenges

- Lack of POS terminals in India: Brazil leads the pack with over 33,000 POS terminals per million people among emerging economies; India has only 700 POS terminals for every one million people (1.4 million in India). While you might argue with India's population, compared to Brazil our neighbour, China has 4000 POS terminals for one million people in the country. While start-ups like ePaisa, MSwipe, etc... give POS terminals to merchants at a low cost, more innovative start-ups are necessary to improve the situation.
- 2. Lack of ATMs: India has only 200 thousand ATMs across the country due to less penetration of Debit and Credit Cards. Accounting for the same, on an average 11 transactions are done using credit cards and 2 using debit cards in India, the main reason for discouragement of usage of these cards is the lack of ATMs. ATMs promote a cash-based economy, but still the number of ATMs can be a determinant factor for Indians to use these cards at the POS terminals.
- 3. Less penetration of Banks: India has a total of 170 banks but most of its branches are located in the metros (Delhi, Mumbai, Kolkata, Chennai, Bangalore and Hyderabad) as it contributes to 40% of the total bank transactions. Due to less demand for banking services in rural areas, banks tend to neglect their reach in tier-II cities and rural areas.
- 4. Low encouragement in the retail sector: Basic essentials of the day constitute to 60% of the total value of this chain while others like clothing, furniture, electronics add more profits to this sector to run profitably (35% margin exists in the clothing sector). Food sector runs on low margins (sometimes below 5%), prompting the Kirana store owners for its customers to pay-in cash to cut its expenses incurred in having a high-speed broadband connection, 2% charge on payments made through credit cards, etc.... While large stores run their show due to profits in other sectors, Kirana stores generally refuse payments digitally.
- 5. Mobile and Internet Connectivity: India has close to 1 Billion cell phone connections, but only 300 million are connected to the internet. While a large chuck is connected to 2G and 20 million people using broadband, India has to go a long way to get people on the internet. Two reasons for the same: Lack of purchasing power of costly data packs and less interest shown by mobile operators to provide connectivity to rural areas due to lower ARPU (Average)

Revenue per User), India still needs to work on mobile connectivity to promote digital payments.

- Smartphone penetration: India became the 2<sup>nd</sup> Largest Smartphone market with close to 250 million users, but a major population still doesn't use the new-tech phones due to less familiarity and costs.
- 7. Affordability: We have to encourage spending on internet connections and better quality Smartphones such that both don't give up in a crisis situation. Today's low cost smartphones and cheap data packs don't give better battery life, security and high speed respectively. With less public WiFi access, the internet connection is an added burden over existing transaction cost both to the merchant and the customer
- 8. Large country with less bandwidth: India recently witnessed unprecedented digital payments after the demonetization almost 10 times in cab payments and acceptance of wallets like PayTM, led to clocking of the network due to high volume payments.
- 9. Language:- India is the second largest English speaking country (100 million people approx.) (Though not fluently); but more than 1 Billion people don't understand and communicate in English. A country with 1700 languages united under one roof, payment interface in major official languages isn't in place, making it difficult for the large un-educated population to opt for digital payments.
- 10. **Security and Privacy:** Is our data safe? This is a major question mark when it comes to digital payments in India. With hackers gaining access to banking systems due to overloading in the past 15 days due to high volume digital payments, is India ready with security systems in place is the biggest question above all reasons stated above.



Cases of Sweden and Kenya-to undesrstand how they imparted cashless eco system

## SWEDEN-ALMOST CASHLESS

In 1661, Sweden was among the world's first countries to start paper currency notes. Roughly after 350 years, people in Sweden see a person with suspicion when he makes a payment through cash, assuming him to be doing some anti-law activities.

**Reason to go cashless:** – Robbery. The developed country has suffered many protests due to robberies in banks and residences in the late 20<sup>th</sup> Century. In 2008, over 100 thefts have taken place in banks reducing to all time low of 1-2 thefts in 2015, as the banks don't have cash which could have been stolen (security being the other reasons)



Sweden is nearly cashless with better implementation of policies **How did they achieve it:** – All major banks in the country came together to launch one digital payment app: – Swish. This app could be used to make payments at places like petrol pumps, local grocery stores, buses, etc.... even to donations in churches, such that the transaction is done directly between bank accounts on one platform.

Effects in sweden: -

- 1. The money kept in the banks are at a negative interest rate of -0.5%
- The largest currency bill is 500 kroner (USD 60) as recently Sweden scrapped 1000 kroner currency bill
- 3. The ATMs in the country are vanishing slowly, some still exist for people who aren't able to adapt to the app payment

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- 4. Five major banks (out of 6) have already gone cashless in the country.
- 5. By 2020, the country expects to not print currency bills while researchers predict another 5-10 years for the same to happen in Sweden due to aging population reluctant to use the digitised version of payment.

## **KENYA – JOURNEY TO GO CASHLESS**

Kenya achieved the same through mobile banking which was started by dominant telecom operator Safaricom in association with Vodafone group in 2007 through M-Pesa (M – Mobile and Pesa – Money in Swahili (largest spoken language in the hinterland)).

Reason: – M-Pesa was started to collect re-payments for micro-finance loans, evolved into a mobile banking system for the major population in Kenya for their daily needs like milk, grocery, person-to-person money transfer, etc....



M-Pesa is playing the role of providing banking system in Kenya

**How did they achieve it:** – With only 840 bank branches in the country and less penetration of Credit/Debit cards in the country, M-Pesa built a strong retail store chain and 40,000 agents to keep direct contact with the customers of M-Pesa; they act like portable bank branches to the M-Pesa customers who can give them with hard-cash instantly and it is debited from their M-Pesa account. The agents and retail stores are paid commission on the number of customers they provide services. The customers join the network through a valid KYC which the government can use to check valid transactions and probably bring them to the banking ecosystem. Their success was accounted to the large market share of Safaricom in the country as a telecom operator. On a side note, the interest generated due to deposits of money from the customers is used for charity and other philanthropic activities in the country.

#### Effects on Kenya: -

- 1. Due to lack of banking services to a large population, the government has tied up with M-Pesa to provide seamless connectivity to the unbanked population.
- 2. It has helped the government to control inflation, which is a serious issue in many African nations.
- 3. Despite accounting for 70% of the transactions in the country, it adds value of only 2% to the economy. But still it has helped the government to focus on more serious issues in the developing economy rather concentrating on the unbanked sector.

Despite low penetration of internet and Smartphones in the country, Kenya was able to achieve a cashless society for the poor at a low cost such that the poor can live their life in peace and harmony, not worrying about robbery or cheating due to illiteracy.

#### HOW CAN INDIA EVOLVE INTO A CASHLESS ECONOMY

India can surely become a cashless economy if The government can implement the following policies like:

- Levy taxes for cash payments
- Reduce the transaction fees through non-cash payments
- Reduce circulation of large currency bills in the country
- Team up with telecom operators to introduce free data services for UPI-based apps such that people don't have a second thought to do digital payments as they don't have make incur data costs
- Bring the entire un-organisedlabour sector into the banking system in order to curb black money circulation (by their employers)
- Educate the illiterate to use these payment modes by showing its advantages and ease to use along with a spark of patriotism which was seen well in the demonetization drive, helped the government take its time to control the cash crunch
- Introducing door-to-door cash correspondents (in remote rural areas where ATMs and bank branches don't exist) to deliver cash for their digital wallets/debit cards.

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While through the government start-up UPI (United Payments Interface) the government can ensure security and safety of the customer's data and privacy, instead of allowing private and foreign players like Visa, PayTM, Mastercard, etc.

the government has to create a robust platform using the security features developed by NPCI (National Payments Corporation of India), provide better access of RuPay cards at all POS terminals, etc... in order to secure the consumer data.

#### Conclusion

If cashless economy becomes a reality, the government can do away with Income Tax from recovering the costs by charging for bank transactions..However, In highly populous country like india trying to push people into cashless system may not produce results instead create troubles henece its better to encourage the people to mingle with less cash system. Infact the first ATM was launched in 1987 in india but the penetration of ATMs was intensified only after 2000, it shows the slow and steady progress of digital transactions in the country. Hence, sudden policy changes may create pain to people rather than gain and it may

Create unprecedented challenges.

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