

Cashless Economy, “A Socio Economic Transformation”



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Abstract

Cashless Economy can be defined as a situation in which the flow of cash within an economy is non-existent and all transactions must be through electronic channels such as direct debit, credit cards, 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. The purpose of this research paper is to clearly examine the development and challenges of cashless economy and also knowing about availability of various alternative modes of payment. It will also help to understand what Steps Should be Taken towards Cashless Economy? Enabling access to banking is a pre requisite to promote cashless economy. So the success of initiatives such as Jandhan accounts linked to Aadhaar data will be very important. A robust payments mechanism to settle a digital transaction is also needed, though the National Electronic Funds Transfer and Real Time Gross Settlement services. The Indian central bank will also have to shed some of its conservatism, part of which is because it has often seen itself as the protector of banking interests rather than overall financial development. What Is 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 is 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 transactions.

Keywords: Cashless Economy, Less Cash Economy, Financial System, Business Transaction, Modes Of Payments And Detailed Operational Process.

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.

The RBI and the Government are making several efforts to reduce the use of cash in the economy by promoting the digital/payment devices including prepaid instruments and cards. RBI's effort to encourage this new variety of payment and settlement facilities aims to achieve the goal of a 'less cash' society. Here, the term less cash society and cashless transaction economy indicate the same thing of reducing cash transactions and settlement rather doing transactions digitally.

Cashless transaction economy doesn't mean shortage of cash rather it indicates a culture of people settling transactions digitally. In a modern economy, money moves electronically. Hence the spread of digital payment culture along with the expansion of infrastructure facilities is needed to achieve the goal.

On November 8th, Government withdrawn Rs 500 and Rs 1000 notes- two highest denominations in circulation. Main objectives were to fight counterfeit money and black money. The action has given tremendous boost to cashless transactions as card based and digital payments were not hindered when all high denomination cash transactions suffered because of absence of high denomination currencies.

Objectives of the Study

The objective of this paper is to study the impact of cashless economy on Indian system such as:

E: ISSN No. 2349-9443

1. To promoting digital payments
2. To prepare a roadmap to boost transparency and financial inclusion.
3. To achieve the goal of a 'less cash' society.
4. To examine the development and challenges of cashless economy.

Methodology

The study has been mainly accomplished through secondary data, since the collection of data was made through various published sources like reports, magazines, journals, documents, newspapers and the like etc.

Types of Cashless Modes and Payments

Mobile Wallet

It is basically a virtual wallet available on your mobile phone. You can store cash in your mobile to make online or offline payments. Various service providers offer these wallets via mobile apps, which is to be downloaded on the phone. You can transfer the money into these wallets online using credit/debit card or Net banking. This means that every time you pay a bill or make a purchase online via the wallet, you won't have to furnish your card details. You can use these to pay bills and make online purchases.

Plastic Money

It includes credit, debit and prepaid cards. The latter can be issued by banks or non-banks and it can be physical or virtual. These can be bought and recharged online via Net banking and can be used to make online or point-of-sale (PoS) purchases, even given as gift cards. Cards are used for three primary purposes – for withdrawing money from ATMs, making online payments and swiping for purchases or payments at PoS terminals at merchant outlets like shops, restaurants, fuel pumps etc.

Net Banking

It does not involve any wallet and is simply a method of online transfer of funds from one bank account to another bank account, credit card, or a third party. You can do it through a computer or mobile phone. Log in to your bank account on the internet and transfer money via national electronic funds transfer (NEFT), real-time gross settlement (RTGS) or immediate payment service (IMPS), all of which come at a nominal transaction cost.

The RBI classifies every mode of cashless fund transfer using cards or mobile phones as 'prepaid payment instrument'. They can be issued as smart cards, magnetic stripe cards, Net accounts, Net wallets, mobile accounts, mobile wallets or paper vouchers. They are classified into four types:

Open Wallets

These allow you to buy goods and services, withdraw cash at ATMs or banks and transfer funds. These services can only be jointly launched in association with a bank. Apart from the usual merchant payments, it also allows you to send money to any mobile number linked with a bank account. M-Pesa by Vodafone is an example.

Semi-Open Wallets

You cannot withdraw cash or get it back from these wallets. In this case, a customer has to spend what he loads. For example, Airtel Money/Ola Money

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is a semi-open wallet, which allows you to transact with merchants having a contract with Airtel/Ola.

Closed Wallets

This is quite popular with e-commerce companies; where in a certain amount of money is locked with the merchant in case of a cancellation or return of the product, or gift cards. Flipkart and Book My Show wallets are an example.

Semi-Closed Wallets

These wallets do not permit cash withdrawals or redemption, but it allows you to buy goods and services from listed vendors and perform financial services at listed locations. Paytm is an example.

Pros of a Cashless Economy

Positive Impact on Society

We are seeing the impact of cashless economy on the society when it comes to crime rates. According to Union defense minister after demonetization the crime rates in Mumbai has dropped to half. Not just Mumbai but Delhi is seeing a substantial decline in crimes related to financial motive. Bank robbery, burglary, extortion etc are declining because of demonetization.

Attack on Parallel Economy

This is one of the most important reasons why a cashless society is must. People who hoard money under their bed (also known as black money), people who launder money bypassing banking channels, terrorist who need money to finance their terror etc will run out of business now. Size of Parallel economy will reduce substantially.

Financial Inclusion

Digital economy will help to enhance our current banking system. There will be increased access to credit for people who did not fall in any banking network. Financial inclusion will automatically reduce poverty.

Increase the Tax Net

All the transactions that are done can be monitored and traced back to a given individual. If officials from tax department smell something fishy then they can trace the money transaction back to the individual. Hence it will be really difficult for someone to evade tax. Increasing tax net is very important for any government.

Security and Convenience

Last but not the least is security and convenience. You don't have to carry a wallet with money in it. You just use your mobile phone or credit card for transaction. It is very hassle free and already going on in urban areas of the country.

Cons of a Cashless Economy

Security – Cyber Attack, Fraud and Power Outages

Cashless economy can be a nightmare when it comes to security. All your transactions will be done digitally. You will be prone to cyber attacks like hacking. Hackers can hack your sensitive information like password, credit card number etc and leave your account with no money. Even your personal computer is compromised. You can save yourself from fraud but it is very difficult to save from a cyber attack.

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Have to Trust Government or Third party

As I said earlier there is no money in your hand. All the money is digital so either they are in control of banks or government or any other third party. You have to trust government or bank blindly because everything is under their possession. This is could be scary because if tomorrow something happens you will be left with no hard cash.

Reduced Liquidity means Bad for Certain Sectors

There are certain sectors which depend upon high level of transaction. Sectors like Real Estate, jewelry, retail industry, restaurants and eating joints, cement and other SME will be affected badly because of cashless society. It means a lot people who are employed by these sectors are also going to be affected.

Really Bad for Poor

This is the real point and will be debating this in great details in following paragraph. Here I just want to say cashless economy is really going to hurt poor.

Challenges in Transitioning to a Cashless Society Acceptance Infrastructure and Digital Inclusion

Lack of adequate infrastructure is a major hurdle in setting up a cashless economy. Inefficient banking systems, poor digital infrastructure, poor internet connectivity, lack of robust digital payment interface and poor penetration of PoS terminals are some of the issues that need to be overcome.

Financial Inclusion

For a cashless economy to take off the primary precondition that should exist is that, there should be universal financial inclusion. Every individual must have access to banking facilities and should hold a bank account with debit/credit card and online banking facilities.

Digital and Financial Literacy

Ensuring financial and digital inclusion alone is not sufficient to transition to a cashless economy. The citizens should also be made aware of the financial and digital instruments available and how to transact using them.

Cyber Security

Digital infrastructure is highly vulnerable to cyber-attacks, cyber frauds, phishing and identity theft. Off late cyber-attacks have become more sophisticated and organized and poses a clear and present danger. Hence establishing secure and resilient payment interfaces is a pre-requisite for going cashless.

Changing Habits and Attitude

Indian economy functions primarily on cash due to lack of penetration of e-payment modes, digital illiteracy of e-payment and cashless transaction methods and thirdly habit of handling cash as a convenience. In this scenario, the ideal thing to do is to make people adopt e-payments in an incremental fashion and spread awareness to initiate behavioral change in habits and attitude.

Best cashless payment options in India – Go Cashless in India

Going cashless is trending in India nowadays. Soon after government's demonetization

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move, people started adapting to modern ways of cashless payment options.

There are many cashless payment options available in India. But in this post I will share with you the best cashless payment options that you can use to transact cashless India.

To promote cashless economy, many cashless transaction providers have started giving out 100% cash back on cashless transactions.

How these cashless payment options work?- Detailed operational process

E Wallets

E Wallets have become very famous nowadays. After demonetization, use of e wallets has been implemented at a very large-scale. You might have seen those '*chai walas*' and other road side vendors accepting Paytm. That is what exactly e wallets are all about. Paytm is an e wallet and there are many others available.

Now add money to your e wallet. You can add money to your paytm wallet online using debit/credit card/net banking. Also there are physical recharge points available all over India where you can add money to your paytm e wallet. It allow millions of people to pay using their non Smartphone's (feature phone), that **too** without internet.

Now paytm users can pay without internet by just dialing a toll free number. Paytm users have to dial 1800 1800 1234 and they can easily pay any other paytm user without internet.

To pay using paytm's new toll free number feature, users need to set up a 4 digit pin. After that users will have to enter the paytm mobile number to the person who is receiving the money with the amount to be sent. Only registered paytm users can send payments via paytm without internet.

There are also many other electronic wallets available in app stores like Google play. You can download any of them to make digital payments easily. They include jio money, Vodafone mpesa & airtel money. Even banks have launched their own e wallet apps like State bank buddy and yes pay.

UPI

UPI also known as Unified Payments Interface is another great way to go cashless. If you are confused about what unified payments interface is, here I will end it forever. Unified payments interface also called **UPI** is system of payments. Using unified payments interface, people can transact using their Smartphone's. To pay using this system called unified payments interface, you need 2 important things: Smartphone and a Bank Account.

Plastic Money

Plastic Money means debit cards and credit cards that are used at ATM's for cash withdrawal and POS machines while shopping. Having a debit or credit cards make you burden free from carrying cash. Also risk of theft goes down to zero as it needs a PIN carry out transactions. You don't need to carry huge amount of cash with you. Just swipe and go. Debit card payments are made through bank account. Bank account gets debited while paying using debit card. But in case of a credit card, it is a monthly postpaid bill payment system that takes place.

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Net Banking

Net Banking is another handy way to get cashless transactions done. All you need is a bank account with e banking facility enabled on it. You can transfer funds to others account from the comfort of your home. There is no need of going to your bank to get transfers done. You can make all payments and transfers yourself. This is a very convenient way to go cashless in India as well.

Aadhaar Card Enabled Payment System

Aadhaar Card allows a person to pay using his aadhaar card if it is linked to his bank account. Once you link your aadhaar card to your bank, you can make payments using your finger prints.

AEPS (Aadhaar Enabled Payment System) in its basic form is a machine known as micro ATM. This machine is similar to POS machines that accept credit/debit cards. The only difference is that instead of any card you need to authenticate your payments using your bio metrics (usually fingerprint).

IndiaQR

IndiaQR is a QR code which stores the bank details of a merchant which can be scanned by a smartphone to transfer a certain amount to merchant's account. All this is done by a smartphone app developed for this purpose. This system replaces the need of having POS machines to accept payments by credit or debit cards. This system has been developed jointly by Mastercard Inc, Visa and RuPay.

Suppose you visit a merchant and you need to pay for goods or services. You have a credit/debit card belonging to Mastercard, Visa, RuPay or American Express network but the merchant doesn't have a POS machine where you can swipe the card. Now due to introduction of IndiaQR, the merchant doesn't necessarily need to buy a POS machine. The merchant just needs a unique QR code which can be scanned by customer to transfer a specific amount directly to merchant's bank account.

Payment with Ordinary Phones

Meet NUUP

The National Unified USSD Platform (NUUP), set up by the NPCI, provides users access to their bank accounts. It allows them to perform banking tasks like checking the account balance, generating a mini-statement and, most importantly, transferring money to other accounts. On dialling *99# on the phone, the user has to enter either the first four digits of their bank's IFSC code or the Short Code (A list of the three-letter short codes is available on the NPCI website.) to choose a bank account associated with the phone number. The user can then proceed with their transaction. The service is functional around the clock, and even on holidays. Some features are available in 12 different languages. The NPCI has also released a list of USSD numbers to dial for different languages. Different telecom operators charge different amounts for using the NUUP; the Telecom Regulatory Authority of India having set a maximum limit of Rs 1.50 per transaction.

Payment with Smart Cards

A smart card, typically a type of chip card, is a plastic card that contains an embedded computer

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chip—either a memory or microprocessor type—that stores and transacts data. This data is usually associated with either value, information, or both and is stored and processed within the card's chip. The card data is transacted via a reader that is part of a computing system. Systems that are enhanced with smart cards are in use today throughout several key applications, including healthcare, banking, entertainment, and transportation. All applications can benefit from the added features and security that smart cards provide. According to Eurosmart, worldwide smart card shipments will grow 10% in 2010 to 5.455 billion cards. Markets that have been traditionally served by other machine readable card technologies, such as barcode and magnetic stripe, are converting to smart cards as the calculated return on investment is revisited by each card issuer year after year.

Card Swipe Machine

Since the card can be a debit card or a credit card, the machine is also known as a credit card swipe machine or a debit card swipe machine. Cards with embedded chips need to be dipped in the machine while cards without chips can be swiped. Once a card is swiped / dipped, the EDC machine captures the essential information linked to the card. This includes the card name, card number, transaction amount, etc. It also records the name of the outlet where the transaction is made and the date and time of the transaction. The information so captured is transferred to the card issuer for authorization purpose via telephone line or wireless internet. Post authorization, the amount is transferred to the seller's account.

Mobile Wallet Apps in India

Paytm

Paytm is one of the most popular e-commerce platforms that offer the digital wallet facility. Launched way back in 2010, Paytm lets you create an account to store your money. You can later use the money while you shop at stores that have a tie-up with Paytm. Apart from shopping, the money in this account can also be used to pay bills (including electricity, water usage, etc.) and buy entertainment tickets.

FreeCharge

FreeCharge lets you recharge any prepaid mobile phone, postpaid mobile, electricity bill payments, DTH, and data card in India. It recently added metro card recharging as a feature of its platform. The wallet can be topped up with debit cards, credit cards, and net banking, and can be managed via an app or from the Web browser. Acquired by Snapdeal in April 2015, FreeCharge launched its own digital wallet for making transaction across FreeCharge and Snapdeal platforms in September 2015, and at the time claimed a user base of 5 million wallet users in an emailed factsheet.

Mobikwik

With more than 25 million active users, MobiKwik is yet another fabulous mobile payment platform that has a tie-up with over 50,000 retailers. The money can be added to the account using net banking, debit card or credit card.

E: ISSN No. 2349-9443

Interestingly, MobiKwik also offers a doorstep cash collection service, which can later be used to shop, recharge, and pay bills.

Vodafone M-pesa

Vodafone M-pesa claims to be India's largest cash out network, with over 85,000 M-pesa agents spread across the country. The service lets you send money to anyone, to recharge prepaid numbers, DTH connections, postpaid Vodafone numbers, utility bills and online shopping. Money can be transferred to a bank via its inbuilt IMPS service, or to a mobile number, but charges apply in slabs – for example, sending Rs. 2,000 to a bank account or an M-pesa account costs Rs. 38. DTH and prepaid recharges can be done through m-pesa for free.

PayUmoney

PayU India is the flagship company of Naspers group which is a \$25 Billion internet and media conglomerate listed on London and Johannesburg stock exchanges respectively. You may pay for your mutual fund or study loan through PayU. It is a partner with all major nationalized and cooperative banks.

Cash less V/s Less Cash Economy

Finance Minister Arun Jaitley on Thursday said the government and the Reserve Bank are taking measures to bring down the digital transaction cost with an aim to move towards a less-cash economy.

Chairing the 5th Meeting of the Consultative Committee attached to his ministry, Jaitley said digital transactions are a parallel mechanism, not a substitute, for cash transactions and "cashless economy is actually a less cash economy as no economy can be fully cashless".

He told the participating Members of Parliament (MPs) that the government is trying to encourage digitization as much as possible because an excessive cash economy has its own social and economic costs and consequences.

Less cash, he said, can be gradually substituted to the possible extent through digital transactions. According to an official release, Jaitley said the Centre has announced various incentives to attract people to shift to digital mode of payment and the response is quite positive so far in this regard.

The Finance Minister added that 55 per cent petrol pumps in the country are accepting payment through digital means and with the government providing incentives, more people are switching to this mode.

Cashless Economy and Cyber Security Issues

There has been a spurt in cyber attacks. Does India have the infrastructure to prevent cyber attacks since we are continuously talking about moving to a cashless society?

Cyber security is clear and present danger. It is here to stay and is getting much more severe and organized. We are investing very heavily in this whole space. We have moved to EMV which has very high encryption technology at the physical point of sale. We have introduced a global standard on a product called tokenization which will deliver EMV for online transactions. The biggest challenge to cyber security is, if you become over cautious and decline

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transactions after five declines a consumer will revert back to cash. So you got to have the ability to continue to provide a simple safe secure consumer experience with the highest levels of safety and security. This will need investments from all participants.

What measures have you taken to strengthen your systems after the recent debit card fraud where 3.2 million debit cards in India were potentially at risk?

It's important to keep in mind that the actual cards compromised were 600-700.

98 per cent cash economy

The invalidation of 86 per cent of the cash currency was a massive step in the economic history of India.

The country's cash to GDP ratio, an indicator of the amount of cash used in the economy, is around 12 to 13 per cent, much higher than major economies including the US, the UK and Euro area but below that of Japan (about 18 per cent). Another emerging economy Indonesia has a much lower ratio of around 5 per cent. With cashless transactions accounting to just 2 per cent, India is bound to have highly disruptive transition to being a less-cash or cash-less economy.

Cyber Security

The absence of robust cyber security laws in India is a major threat to the country's dream of cash-less economy. Instances like the massive security breach of 32 lakh debit cards, just months before demonetization, is a strong indication that the country is yet to develop an efficient cyber-security system.

Paytm, a popular e-wallet in the country rolled out a Smartphone-based Pops system to enhance the reachability of the technology but there were serious shortcomings and it had to roll-back the feature the very next day.

The lack of an adept checking-mechanism for the modern banking technologies is an obvious deterrent towards safe cash-less economy.

Terrible Internet Connectivity

Broadband connections are still a rare phenomenon in Indian cities but it's an even rarer facility in small towns or villages.

The country has 350 million internet users that are still working with a speed of 512 kbps which is much lower than the global average speeds ranging above 5 Mbps. India's average internet connection speed is 2.8Mbps. Average page load time in India is 5.5 seconds compared to China's 2.6 seconds.

Technology in Banking Industry has Shallow Reach

Though the country has the second highest number of Smartphone users in the world, the number hardly covers 20 per cent of the total population of the country.

According to a report by India Spend, only 27 per cent of India's population has access to internet, which is much less than the global average of 57 per cent. Banning 86 per cent of the cash currency has turned into a big challenge for rural area dwellers that heavily rely on cash to make transactions. Out of the total 833 million people living

E: ISSN No. 2349-9443

in rural areas, only 108 million (or 13 per cent) use internet.

Expensive personal banking equipment

The country is no stranger to economic disparity. Expensive gadgets like PoS machines or even the finger print readers used for AADHAR based payment systems are not cheap enough to replace physical currency.

Smartphones are an important prerequisite for most mobile banking facilities. The government has been actively promoting e-wallets and other mobile-banking facilities but with a smartphone penetration of meager 17 per cent is far from ideal to make such blanket implementations.

According to data.gov.in, India's 21.92 per cent of total population lives under the poverty line. 25 per cent people in rural areas and 13.70 per cent in urban India fall under this category. Emphasizing on the use of technology to make simple transactions can be unfair for this underprivileged section of the population.

Huge Percentage of Uneducated Population

According to the 2011 census, India has a literacy rate of 73 per cent. The country has come a long way from the 12 per cent literacy rate since its Independence in 1947 but according to UNESCO, it still is home to the biggest population of illiterate adults in the world. Without the basic knowledge to read and write, tech savvy banking is more of a distant reality for this population.

Conclusion

However, the benefits of this move have now started trickling in with more and more people

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switching to digital modes of receiving and making payment. India is gradually transitioning from a cash-centric to cashless economy. Digital transactions are traceable, therefore easily taxable, leaving no room for the circulation of black money. The whole country is undergoing the process of modernization in money transactions, with e-payment services gaining unprecedented momentum. A large number of businesses, even street vendors, are now accepting electronic payments, prompting the people to learn to transact the cashless way at a faster pace than ever before.

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