CHAPTER 2

CASHLESS TRANSACTION SYSTEM: ITS EVOLUTION, GROWTH, OPPORTUNITY, AND CHALLENGES.
2. 1 Introduction-

In the last one decade, there is a tremendous interest among policy makers, academicians, and commercial enterprises to explore the possibilities of moving towards a cashless economy globally. It is widely believed that the movement from cash to cashless economy has significant benefits. According to Moody’s Analytics (2013) report, studying the impact of card usage on gross domestic product (GDP) of 51 countries, found that electronic card usage added USD 1.1 trillion in real dollars to private consumption and GDP from 2003 to 2008. The study found that a 1% increase in card transaction volume would increase consumption each year by 0.039% and GDP growth by 0.024%. Similar benefits are expected for India as well. This chapter focus on developing literature on cashless transaction system: its evolution, growth, opportunity, and challenges.

It is undeniable that we all feel overwhelmed in the middle of all this over-spreading novelty. In spite of this, but maybe also because of it, some of us think that maybe the time has finally come. When must take up the challenge of building a new class of general equilibrium models that are responsive to our ever-changing and complex reality. In particular, now it is the time for us monetary theorists to start moving gradually away from our standard monetary general equilibrium models, since the latter deal only with very limited kinds of currencies: they deal either with standard commodity money or fiat money in a regular physical environment. But our new reality needs more than that: to start thinking about virtual or digital currencies in virtual and/or digital worlds. Our Arrow-Debreu economies, as they are now, are not ready yet to allow us to respond to these new needs and worlds. The empirics of common wisdom and the highly sophisticated intellectuals both agree that most of the above-mentioned changes have been concentrated on the sectors of electronics and telecommunications. We propose to start building upon three very simple ideas: first, that the emergence of virtual or electronic currencies is at the heart of these happenings and that it has been the oil lubricating its workings; second, all the events mentioned are something that our models cannot deal with yet; and third, that this is a multi-dimensional issue. We are proposing, accordingly, to take our general equilibrium models one step forward, and for us, economic theorists, to move with them. But this must be done sequentially, little step after little step. We believe that
this paper is a first step in this direction, where we propose to undertake a particularly important first task (that may not work out to be as simple as we would like): the immense undertaking of trying to come up with an all-encompassing definition of virtual/electronic/digital currency. We are aware that we are proposing to define something that we may not understand fully as yet, but this is also the beauty of this challenge. Moreover, we will follow our own advice and will be focusing mostly on the economic and financial aspects of this phenomenon at this stage; this is to be complemented later on with the legal and institutional aspects, which are equally important but are for now a bit out of our reach. There is a notion deeply ingrained in every one of us and that comes up whenever we try to deal with the concept of a currency, whichever its form: one way or another, a currency is something that requires trust and a very high involvement by the government and related institutions. Keeping this in mind, we propose to start by mentioning these definitions as they are put in place by some “official” institutions. A first take on the subject is by the Financial Service Authority of the United Kingdom, who defines electronic money as follows:

Electronic money (e-money) is electronically (including magnetically) stored monetary value, represented by a claim on the issuer, which is issued on receipt of funds for the purpose of making payment transactions, and which is accepted by a person other than the electronic money issuer. Types of e-money include pre-paid cards and electronic pre-paid accounts for use online.

People must be aware that assigning a value to the goods and services. People wish to consume directly or that use to produce other goods is, most frequently, expressed in monetary units, since one of the most essential functions that a money must carry out is to be a unit of account; i.e. Use the legal tender every day to value all of our transactions and things but nowadays we must also account for a new kind of money, which use is expanding rapidly: one can use virtual currencies that are redeemable in fiat money but not necessarily backed by it, as a representative currency would. The value of such transactions performed over the Internet has increased enormously: goods and services that before were purchased at “bricks-and-mortar” stores are now acquired over the Internet. Interestingly, these transactions mostly use electronic equivalents of fiat money (e.g. electronic funds transfers, debit cards or credit cards) as media of exchange. Moreover, the current forms of electronic money (including
digital cash or stored value cards) have been engineered to operate in such a market. Before getting started, we must lay out what we understand to be the most important issues related to e-commerce. Among them, we must highlight the definitions of micro payments, virtual currency, digital goods and virtual goods.

2.2 Cashless Transaction System: Historical Evolution & Growth in India

Cashless economy is an economy where maximum transactions are done without using the physical cash or the means of hard cash. It is the economy where economic transactions are done with the facilities like credit card, debit cards and online transactions by means of fund transfer and using e-wallets. The introduction of cashless economy with the help of information technology these days is fully supported by the national government in India. This initiative has not only helped the fast transactions but at the same time it has saved lot of time and money in the country. If we see the global trend in the market it is clear that all over the world people have started taking interest in cashless transactions. Academicians, politicians, administrators and above all the economists all over the world has strongly advocated about going cashless from the cash rich economy Cashless Transaction System is a new and easier way of paying for goods and services.

A cashless transaction refers to an economic setting whereby goods and services are transacted without cash (Paul and Friday 2012), either through electronic transfer or cheque payment. Looking back in history, the effect of cashless payment on an economy can be analyzed by the Diffusion of Innovation Theory (DOI). The concept was first introduced by Roger in 1962 where he explained how innovation is diffused to members of a social system over time (Rogers, 1995). According to DOI, the adoption of a new idea or innovations is caused by interaction between individuals through interpersonal networks. In this context, diffusion is the spread of cashless payment where consumers seek improved and convenient transaction, while businesses seek new profit opportunities. The diffusion of cashless payment will result in the adoption of cashless transactions within the society or community, subject to the types of innovation adopters and innovation-decision process. Since the consequences of diffusion in cashless payment depend on how quickly the society is willing to adopt cashless payment through different stages of innovation processes, the consequence s of the adoption of cashless payment differs in different society.
Today, the use of electronic payment has continued to increase due to its convenience, safety and swift mode of payment. Oyewole et al. (2013) discovered that adopting electronic payment will positively affect economic growth and trade. Hasan et al. (2012) examined the fundamental relationship between the adoption of electronic retail payment and overall economic growth across 27 European countries from the period 1995–2009. They discovered that migration to an effective electronic retail payment would stimulate the overall economic growth, consumption, and trade. However, the impact of credit and debit card payment, fund transfers and cheques payment on the economy are relatively low.

Zandi et al. (2013) studied whether the long-term shift to credit and debit cards stimulates economic growth of 56 countries worldwide. They discovered that electronic card payments can increase efficiency and boost consumption of the economy. Moreover, the adoption of electronic transaction is essential for transparency, accountability and reduction of cash related fraud, the fundamental elements of economic growth and development (Mieseigha and Ogbodo 2013). Electronic payments will replace cheque payments extensively but cash-based payment will persist to a substantial extent (Liao and Handa 2010). Although technological advancement has enabled improvement and innovation in electronic payment system (Oyewole et al. 2013), from the basic ATM card transaction to online credit transfer, direct debit, card payments and cheques, security related issues, non-IT savvy users and phishing emails are some of the shortcomings of the adoption of cashless payments. The loss of money and the compromise of private information weaken the confidence of consumers to make payment electronically. There is no conclusive evidence on how the adoption of cashless payment might affect an economy. Cashless payment might have a positive impact on economic activities (Hasan et al. 2012) but it also provide an opportunity for corruption (Park 2012), caused bankruptcy among youth (Noordin et al. 2012) and reduced policy control of the monetary system (Ezuwore-Obodoekwe et al. 2014). The study highlights the objectives of being cashless, along with the essentials required by any country for being cashless. This study also examines the various modes of cashless payment namely, credit card, Debit card, electronic money and cheques and their impact on developing economies. The study also mentions about the hurdles, which comes in the way of being cashless. Cashless Transaction System was
introduced in the 1950s and is now an essential form of ready money, which reduces the risk of handling a huge amount of cash. It includes debit cards, ATMs, smart cards; etc. Plastic money is a term that is used predominantly in reference to the hard plastic cards we use every day in place of actual bank notes. They can come in many different forms such as cash cards, credit cards, debit cards, pre-paid cash cards and store cards.

**Cash Cards** - A card that will allow you to withdraw money directly from your bank via an Authorized Teller Machine (ATM) but it will not allow the holder to purchase anything directly with it.

**Credit Cards** - Again this card will permit the cardholder to withdraw cash from an ATM, and a credit card will allow the user to purchase goods and services directly, but unlike a Cash Card the money is basically a high-interest loan to the card holder, although the card holder can avoid any interest charges by paying the balance off in full each month.

**Debit Cards** - This type of card will directly debit money from your bank account, and can directly be used to purchase goods and services. While there is no official credit facility with debit cards per se, as it is linked to the bank account the limit is the limit of what is in the account, for instance, if an overdraft facility is available then the limit will be the extent of the overdraft.

India is yet to buy its freedom from cash. As a country with $1 trillion worth of personal consumption expenditure (PCE) annually, 97 percent of our everyday transactions in shopping, grocery, fuel, education, departmental stores, utility bill payments, taxes, travel, entertainment, restaurants, and hotels, are still in cash. Of the 3 percent annual spend conducted electronically, nearly 80 percentis transacted across the top ten cities that are covered by possibly less than 15 percent of bank branches in the country. Most leading banks focus on issuing credit cards barely across 10-20 cities, even though debit cards are issued across almost the entire country with most banks migrating to core banking platforms (CBS).

India is a cash friendly economy and citizens consider it convenient to carry large amounts of cash for a variety of transactions. The benefits of electronic payments are yet to sink in, as consumers are habitually used to sending and receiving cash.
Changing consumer behavior from cash to digital currency requires significant efforts in education around benefits of cashless payments and the associated convenience and security benefits. Visa and its bank partners are investing heavily in programs to provide incentives on cashless payments and working towards a ubiquitous acceptance network and participation of more players in driving the issuance of cards.

The silver lining is that we are moving in the right direction. All we need to do is increase our efforts and broaden the participation of players to push growth. This positive trend is reflected in the increase in transactions from Rs 13,000 per card in 2004-5 to Rs 55,000 crore estimated for the current year.

With over 270 million debit cards and transactions growing at nearly 40 percent, India is one of the fastest-growing markets in the world. Yet, despite this surge, cash remains a big challenge, as consumer behavior seems rigid. Debit cards are more often used to dispense cash from ATMs. Customers need incentives to recognize that they can directly settle their bills with cards at over 600,000 merchants in India and millions more abroad. With many cooperative banks migrating to core banking solutions, adoption of debit cards should accelerate in the coming years.

For Visa, India is a dream market with 97 percent of all the payments still in cash. The growth opportunities are phenomenal. We believe the whole world, including India, is going through a secular shift to electronic payments. Visa sits right in the middle of this as a global leader and has prioritized India as one of its most important markets for growth. Visa operates in nearly 200 countries and has demonstrated that shared infrastructure which is interoperable can drop costs and allow for rapid adoption of technology and financial inclusion globally with nearly two billion customers.

The RBI-backed NPCI (National Payment Corporation of India) initiative to launch a domestic payment gateway is a welcome step to drive the secular shift across the country. For us, our biggest competitor today is cash and if there were more players, it would only speed up the electronic payment system in the country. The most important proposition in the card business is to give a secure and safe option for customers, and consumers will choose the product that best suits their needs. Visa would continue to innovate and offer superior and secure products for the best payment option for everyone, everywhere.
The Reserve Bank of India and the government are taking a number of steps to change consumer behavior and drive an efficient cashless economy. One of the fine examples is allowing business core respondents to participate in driving financial inclusion. The one product that I will cherish for a long time is Visa’s partnership with DCB Bank and ITZ Cash as a business core respondents to launch open-loop Visa prepaid cards called Freedom Card. Traders who carry large amounts of cash are now able to deposit that into a prepaid account and withdraw the money when they require it from Visa ATMs or pay directly at merchant outlets for their business purchases. This development can be transformational and definitely.

**Efforts of Government of India towards Cashless Transaction System:**

The government of India makes many efforts to increase Cashless Transaction System. Some of the followings are:-

**Adhar Card**- For an electronic payments system to work, two major requirements are the ability to identify a beneficiary correctly, and a way to ensure that the money is reaching only the intended recipient. This is where Aadhaar is a 12 digit individual identification number issued by the Unique Identification Authority of India on behalf of the Government of India. This number will serve as a proof of identity and address, anywhere in India. Aadhaar letter received via India Post and e-Aadhaar downloaded from UIDAI website are equally valid. Aadhaar now serves as a link between the government and the people, making it easy both for the authorities to transfer payments to the correct individual’s bank account, and for people to easily withdraw money using Aadhaar to authenticate their identity. Aadhaar will be:

A. Easily verifiable in an online, cost-effective way
B. Unique and robust enough to eliminate the large number of duplicate and fake identities in government and private databases
C. A random number generated, devoid of any classification based on caste, creed, religion and geography.

**Prime Minister's People Money Scheme (PMJDY)**– PMJDY is National Mission for Financial Inclusion to ensure access to financial services, namely Banking Savings & Deposit Accounts, Remittance, Credit, Insurance, Pension in an affordable manner. The Prime Minister Narendra Modi launched this financial inclusion campaign on 28 August 2014. He had announced this scheme in his first Independence Day speech on...
15 August 2014. Run by Department of Financial Services, Ministry of Finance, on the inauguration day, 1.5 Crore (15 million) bank accounts were opened under this scheme. Guinness World Records Recognizes the Achievements made under PMJDY, Guinness World Records Certificate says "The most bank accounts opened in 1 week as a part of financial inclusion campaign is 18,096,130 and was achieved by Banks in India from 23 to 29 August 2014". By May 2016, the scheme had opened 21.74 crore accounts, with Rs. 37,445 crore in deposits.

**Subsidy Scheme and Pension, MNREGA Fund**- Government plan to give subsidy on LPG and kerosene Oil directly to the beneficiary account so government organized a campaign of KYC after that transferred fund direct to beneficiary Account. As well all the pension related to government and wages of Manrega directly transfer fund on beneficiary Account.

**No Service charge**- Government of India announces that no service charge from 1st July 2016 on booking of railway tickets on IRCTC website.

Therefore, these are the schemes promoting Cashless Transaction System and the government wanted that the society slowly move from cash to cashless system.

**2.3 Benefits of Using Cashless Transaction System**

The ease of conducting financial transactions is probably the biggest motivator to go digital. Cash less payments have several advantages, which were never available through the traditional modes of payment, some of which are; privacy, integrity, compatibility, good transaction efficiency, acceptability, convenience, mobility, low financial risk, anonymity (Keck, 2012). There are many benefits of a cashless discussed as under:

**2.3.1 Ease of Conducting Financial Transactions**: First of all there is an ease of conducting financial transactions, which is probably the biggest motivators to go digital. In cashless payment there is no need to carry wads of cash or even stand in long queues in bank. It will be easy to carry money with you during travelling. It will be especially useful in case of medical emergencies. You can pay easily during working hours as well.

**2.3.2 Reduce Risk**: The policy will help fight against corruption/money laundering and reduce the risk of carrying cash, reduced cost, corruption and money laundering.
2.3.3 Reduced Tax Avoidance: Thirdly, the cashless economy gets benefit of reduced tax avoidance. The recent waiver of service tax on card transactions also promotes digital transactions. This has been followed by a series of cuts and freebies. People will get discount on digital purchase which will cut their cost. Add to these the cash back offers and discounts offered by mobile wallet like Paytm, as well as the reward points and loyalty benefits on existing credit and store cards, and it could help improve your cash flow marginally (Dave, 2016).

2.3.4 Reduced Tax: Taxation with lesser availability of hard cash at homes and more in banks, there is lesser scope of hiding income and evading taxation and when there is more taxpayer it ultimately leads to a lesser rate of taxation for the whole country (Sparrow, 2016).

2.3.5 Transparency: It is not just the easiest way to transact but also brings about a lot more transparency in the financial system, which helps to curb generation of black money.

2.3.6 Reduce prices of real estate: Further, it will reduce real estate prices because of curb on black money as most of black money is invested in real estate prices which inflates the prices or real estate markets. In India, every year RBI spent lots of money (2 billion, 2015) on just the activity of currency issuance and management. It will also leads to lesser funding for illegal trades and activities including terrorism.

2.3.7 Hygiene: It will also help in improving hygiene on site eliminating the bacterial spread through handling notes and coins.

2.3.8 Reduced Fear of Theft: It will lower risk, it is easy to block a credit card or mobile wallet remotely, but it is impossible to get your cash back.

2.3.9 Reduced Red Tapism and Bureaucracy: With cashless transactions through electronic means the wire transfers are tracked and people are accountable which in turn reduces corruption and improve service time.

2.3.10 Lesser Interest Rates: More currency in bank will mean more circulation of money in the economy, Leading to greater liquidity and would eventually mean lesser interest rates (Sparrow, 2016)

2.3.11 Efficiency: Cash collection made simple as time spent on collecting; counting and sorting cash is eliminated, it will lead to efficiency gains. There will be greater efficiency in welfare programmes as money is wired directly into the account of recipients’. Further it reduces transfer/processing fees, increases
processing/transaction time, offers multiple payment options and gives immediate notification on all transactions on customers’ account.

2.3.12. **Track on Spending:** If all transactions are on record, it will be very easy for people to keep track of their spending.

2.3.13. **Benefits to Banks:** It is also beneficial to the banks and merchants; there are large customer coverage, international products and services, promotion and branding, increase in customer satisfaction and personalized relationship with customers and easier documentation and transaction tracking (Ashike, 2011).

2.3.14. **Benefit to Government:** The government will benefit from the cashless economy in the area of Adequate budgeting and taxation, improved regulatory services, improved administrative processes (automation), and reduced cost of currency administration and management (Ashike, 2011). Jimi Agbaje, one of the former governorship candidates on the platform of DPA in Lagos State states that the advantages of a cashless society range from regulating and controlling to securing the financial system of our economy.

2.4 Factor affecting the growth of Cashless Transaction

A cashless transaction in the economy is defined as a situation where there is very little flow of cash in the society and thus the electronic media do much of the purchases. It does not refer to an outright absence of cash transactions in the economic setting but one in which the amount of cash-based transactions are kept to the barest minimum. Transactions are not done predominantly in exchange for actual cash in an economic system. There are many factors affecting the growth of cashless transaction. Some important factors of the growth of cashless transaction are given below;

2.4.1 **Growth of Internet and Localization of Internet content**

Digital revolution and its application in banking and financial sector has changes the consumer behavior and created the drive to go for electronic transaction. Localization of internet content in Hindi and other language has grown significantly in the past year, which is significantly higher than the growth of content search in English. Hindi With incremental growth in mobile subscriber coming mostly from people who are comfortable with languages other than English, online retailers see this emergent segment as new growth driver.
2.4.2 Growth in the tier cities beyond metros

About 20 per cent of India’s population lives in cities outside of metros. There are several pointers that suggest this large group of city dwellers have significant purchasing power. Consumer demand is rising rapidly even in small towns and cities. The research report clearly shows that non-metro cities offer a huge growth potential for many. The facilities of metros in these small cities also drive them to go for cashless.

2.4.3 Growth of mobile commerce

Online retailers’ growing rich in non-metro cities is being driven by the rise in usage of mobile internet in the country. According to Internet and Mobile Association of India, the number of mobile internet users in the country stood at 173 million in December 2014. It is set to grow manifold by 2020. A Confederation of Indian Industry report estimates that in the next six years, the number of people accessing the internet through mobile is set to reach 600 million. “This growth will be spurred by a sharp rise in smartphone adoption, expected to reach 50 per cent penetration by 2020,” says the report. “Given the increased mobile penetration and smartphone adoption in these areas, mobile is certainly one of the major factors driving this trend”.

2.4.4 Growing usage of debit cards for cashless transaction

There has been a net addition of nearly 140 million debit cards in the country in the past two years. What is more, the usage of debit cards at point of sale terminals has seen a growth of 86 per cent in the same period. It indicates the willingness to use debit cards for purposes other than withdrawing money at ATMs has increased. With many online retailers still insisting on use of cards for high value transactions, it is a welcome change. It will allow e-tailors to reach out to many areas and many more customers in coming years. Currently, cash on delivery constitutes nearly 70 per cent of all transactions for online retailers. But online retailers say the usage of cards for online transactions is steadily rising.

2.5 Drawbacks of Cash Transaction

The reason being that money in the form of cash has more than it takes away from us than it gives us. Outlined here are some major drawbacks of cash-

- At an individual level, cash is inconvenient to carry and manage. It cannot be tracked or insured, as cash once lost or stolen cannot be recovered.
Cash is expensive to print, inspect, move, store and guard.

Counterfeiting is always going to be a problem as long as paper currency exists.

Criminals favour hand-to-hand currency, as it does not leave a paper trail.

Cash transactions are not tractable in nature, thus providing no transparency. This leads to corrupt practices and financial crimes such as excessive money laundering.

Monitoring of tax compliance is difficult for the Government.

High cash usage results in a substantial amount of money outside the formal economy, thus stunting the effectiveness of policies aimed at managing inflation rates.

From a global perspective, the economic growth imperative inherent in the current monetary system plays a major role in global warming and other environmental crises.

In the wake of the issues highlighted above, some governments are already viewing the use of cash in a negative light. In fact, according to the U.S. Government, cash payments are now thought of as ‘suspicious’ activity that needs to be reported to the authorities.

We are discussed making India a cashless society, with the point of checking the stream of Black Money. However, what is a cashless economy? It can be characterized as a circumstance in which the cash Transactions is not done only all exchanges must be through electronic channels, for example, direct debit, credit debit cards, electronic clearing, payment systems such as Immediate Payment Service (IMPS), National Electronic Funds Transfer and Real Time Gross Settlement(RTGS) in India.

Ever, the entry of banks got the requirement for paper money. Banks had a restricted supply of gold and silver and understood that their loaning limit was compelled by this. Henceforth, they began issuing paper notes in an overabundance of their stores. This was trailed by the legislatures printing takes note of that were redeemable for gold and silver. In any case, they printed notes in the abundance of their stores. The issue was when individuals lost trust in the paper notes and attempted to recover them for gold and silver, the framework is given way, for instance, in Germany after the World War I. This marvel of individuals losing confidence in paper cash has been
rehashed frequently. At whatever point governments have printed more coin than stores, the estimation of the money has deteriorated.

India keeps on being driven by the utilization of money; under 5% of all instalments happen electronically. This is because of the absence of access to managing an account for a huge part of the people and money being the main means accessible everyone. Extensive and little exchanges keep on being completed in real money. Indeed, even the individuals who can utilize electronic exchanges use the money. While cash Transaction remains the favored decision, there has been a major develop in the Transaction system. There is more than 1 million purposes of offer terminals for more than 500 million debit and 20 million credit cards Money and cheque, which framed 94% of all exchanges in 2003, may tumble to 13% before this present decade's over.

The telecom business is relied upon to help the advanced movement. Investigators anticipate that the cell phone business sector will show a development of four times throughout the following five years alongside a development of seven times in the quantity of clients utilizing portable managing an account. We can assess the upside potential from the way that India has under 40 million portable saving money clients while each of the main three Chinese banks have in abundance of 100 million. As per the annual report of the Reserve Bank of India (RBI) for 2013-14, the amount of currency in circulation stood at Rs.12.83 trillion with a compounded annual growth rate of 10% over the past two years. Around 5% of the sum is with banks. This suggests practically the whole sum is in the everyday course, which is reflected in the Rs.32.1 billion expense of simply printing the notes. Including and running ATMs costs banks Rs.1,520 crore a year. Indeed, even the RBI senator had as of late remarked that it costs banks about Rs.75 per exchange when a client uses an other-bank ATM and those clients executing less finance the continuous transactors. Even by liberal estimates, the direct cost of running a cash-based economy is close to 0.25% of India’s gross domestic product (GDP).

No requirement for lines outside ATMs, no cash out amid long occasions, no sitting tight for a saved check to be credited, and no danger of conveying money notes in the wallet. Cashless exchanges with the upgraded security methodology address each of these issues. Reducing use of cash would also strangulate the green economy, prevent
money laundering and even increase tax compliance, which will ultimately benefit the customers at large. Use of cashless instruments would likewise guarantee that escape clauses openly frameworks are stopped, and the expected recipients can profit the advantages.

While there are numerous immediate advantages of going cashless, the roundabout advantages maybe convey more noteworthy criticality, most imperative of these being expansion in the pace of dissemination of cash. Money, being material, can be kept from the flow. For instance, money that a visitor brings back unused from a remote visit will lie unmoving until her next outing. Cards and electronic channels act to ease this grating and expand flow. In monetary terms, the "speed of cash" increments, and we see the impact of the Keynesian multiplier. AnIlluminated's report pegged the effect of electronic exchanges to 0.8% expansion in Gross domestic product for developing markets and 0.3% increment for created markets.

Starting now, a blend of money and cashless exchanges occur. Now and again utilizing money is less expensive, while in others cashless exchanges are less expensive-trade exchange out banks versus utilizing a cheque, or sending a cash request versus exchanging cash online through, say, IMPS. In the course of recent years, numerous empowering influences have been set up to help this excursion. A tectonic shift, nevertheless, will originate from the cell phone wave. We can say that cashless society is not in India, but we move towards a cashless society. Whether it is conveying saving money to the masses or the payment of government advantages, the current frameworks are plainly not able to keep pace with the requirements of India's population. Now and again, the reasons are monetary: it is costly to manufacture staff and work another bank office, and the sort of high-volume, low-esteem exchanges that occur in a country economy will not counterbalance these expenses. Thus, individuals are denied access to the money related administrations they require most: credit, so they can acquire in awful times; reserve funds and speculation items, with the goal that they can spare in great times; and protection, so they can secure themselves against unanticipated circumstances and demonstrations of nature - a mishap, an ailment, a product disappointment, or a surge. If the financial products related items are to be made accessible to everybody, the costs of such items
must less, and the related dangers must be counterbalanced by spreading them over the whole population

2.6 Technological Innovation

Technological innovation has given pace for consumer to move from cash to cashless transaction. Today world have become interconnected. With the fast technological change, progressive dematerialization, and globally interconnected production and financial dynamics, alternative payment methods to cash are gaining importance. The various innovative cashless transaction system like credit/debit cards and mobile devices (cell phones, tablets, etc.) and other digital transaction support system has become the interest of consumers. The continuous technological innovation has boosted the cashless transaction and brought many change in the socio-economic systems and today the paper money are being replaced with the paper lass economy. The continuous growth in the cashless transaction has given opportunities to advanced countries to keep pace with the new demand for services from businesses and the public, to seize the emerging opportunities of digitalization, and to exploit systemic benefits, like enhanced transaction security, greater transparency, and whitening the economy. In addition, this innovation is now expected its wing to most of the developing g and developed country in the world. As per one of the study, a growing proportion of economic activity, currently around 6% of world GDP, is internet based. Electronic transactions alone are a major driver for growth (especially for SMEs), with an expected global turnover for 2013 of 1,000 billion dollars, 20% up year on year. Electronic payments are an enabling factor. The innovative security support system will bring the improvement in the security in the financial transaction and it will help as risk-mitigation tools for electronic payments and will boost cashless economy. The innovative financial transaction through application of Mobile Wallet such as Credits supports various payment methods, from cards – credit cards, prepaid cards and international debit cards from any issuer – to alternatives like bank transfer, direct debit, phone credit, payment accounts or electronic money will also help cashless economy to grow. The innovative Mobile Wallet feature brings together a range of payment methods for consumers to choose the most suitable one for the product or service that they are buying. The platform offers shared horizontal components that not only generate economies of scale by introducing additional
scenarios but also enable added-value services, like loyalty and couponing. Credits provides specific support for the sale of digital goods and services by offering phone credit as an alternative payment method. With these features, the platform underpins the service offered by Italian mobile-telephone operators. In these enrichment functionality, a technology that recognizes the user via their telephone number and powers a fast, simple and secure payment experience. The Mobile POS is also the latest innovative solution for enabling new business models in the acquiring chain. Mobile POS exploits synergies between an ordinary smartphone or tablet and a PIN pad that reads payment cards and processes transactions in line with the card networks’ standards.

2.7 Money laundering

India is the fourth-largest user of cash in the world. (Cia.gov. (2018).) For one, there are no extra transaction costs involved when you pay with cash, costs that often make it financially unviable for smaller merchants to switch to electronic payments. A cash transaction is immediate, as simple as a banknote moving from one hand to another. You do not have to worry about a computer system crashing and losing your transaction. Financial inclusion is one very good reason to shift from a cash-based system to one that operates on electronic payments, but there are other compelling reasons as well. Cash is a very expensive habit for the nation to cultivate. The cost of printing, managing and moving money around the country is as huge.

In the period 2010-11, the RBI spent nearly Rs 24 billion on printing money, and an additional Rs 455 million on distributing that money nationwide. Cash has other problems too it can be lost or stolen, and a wet, torn, or otherwise damaged banknote is not accepted by most businesses. Electronic payments, on the other hand, can greatly reduce friction in the economy since transactions are simpler, faster and easier to trace. If the government were to make the switch to electronic payments, the savings in one year alone would be enough to pay for the entire cost of setting up the system.

According to the Reserve Bank of India (RBI), the provisional estimate of the amount of currency in circulation (as of June 2010) stands at Rs 8,64,333 crore, out of which
only five per cent of the currency is with the bank — implying that almost the entire volume of currency is transacted every day. Over the period April 2006 -June 2010, the currency has shown a yearly growth rate of 17 percent. It is estimated that for 2009-10, the RBI incurred an annual cost of Rs 2,800 crore to just print the currency notes. This is 0.4 percent of the total currency in circulation. The need to move towards a cashless payment economy is perhaps more in India because of the cost of printing, distributing and processing cash. This cost does not include the cost of storage, transportation, security, detection of counterfeits, etc. To the printing cost, if we were to add the cost of storage and maintaining these currencies through ATMs alone, the cost of printing and disbursing currency comes to approximately Rs 70 per person per year. However, the interchange costs are much lower than Rs 70 per person. As of January 2010 estimates, there are around 60,000 ATMs in India. It costs around Rs. 7 lakh to install an ATM machine and an equivalent amount to maintain it for a year. Given that we plan to add 10,000 ATMs per year, the total cost of printing and distributing currency (through ATMs alone) amounts to Rs 8,400 crore. In other words, the cost of printing and distributing cash constitutes about 0.2 percent of India’s GDP. Alternately put, a moderate growth of cashless transactions by five per cent a year will save more than Rs. 500 crore annually. Therefore, there is a direct benefit (in terms of cost savings) of moving towards cashless transactions in India. However, it is the indirect benefits that are perhaps much more important for India, especially given the country’s objective of inclusive growth.

Recording financial transactions has many advantages. First, it aids the government in its effort to collect appropriate tax revenues; second, it can effectively detect, and help curtail, illegal transactions; third, it will give us a better estimate and understanding of the huge unorganized sector in India; and last, but not least, it will help plug the “leakages” in various government programmes. The Justice Wadhwa Committee Report on the public distribution system recommended the use of computerized platforms that will keep a record of all PDS transactions. (Dash M.C. 2017)

2.8 Government Initiative to Promote Cashless Transaction System

Reserve Bank of India efforts for Cashless Transaction System:-

- Redesign ECS suite of products to function as an Automated Clearing House (ACH) for bulk transactions including both credit and debit taking into
account the implementation of ACH by NPCI. Pursue development of an electronic mandate management system. Focused efforts in building a skilled pool of human resources through workshops, seminars, summits, with active industry participation. Engage with all stakeholders for building an integrated payment infrastructure. Support the G-20 initiatives for reforms in OTC derivatives and implementation of these initiatives in the OTC derivatives markets by putting in place appropriate payment system infrastructure. Introduce CCP arrangements for OTC derivatives to mitigate the risks associated with OTC derivatives. Adopt new technology and standards to mitigate concentration risk. Focus on quasi-payment systems and their risk management processes. Adoption of technology, authentication protocols, security features for safety and security of payment products and channels.

Dialogue with the stakeholder’s viz. security, IT, legal experts, industry bodies, and the government to ensure safety and security of payment products. Efforts towards improving safety and security of payment transactions would include measures such as fraud monitoring and reporting by payment system operators.

Focus attention on the role of non-banks (including cross-border inward remittance service providers) and the services that they offer, including their access to formal payment system networks; settlement in central bank money, and their risk management frameworks. Put in place SWIFT– oversight framework in-line with the international co-operative framework designed by CPSS and the domestic regulatory needs. Operationalize the system for receipt of on-line data/information flow through the ORFS channel. Continue to work actively to fulfil the G-20 initiatives on financial inclusion and electrification of government receipts and payments. Encourage Electronic Benefit Transfer and Direct Transfer of Subsidy payments as envisaged by the Government. Dialogue with stakeholders including the Government for making the direct cost of transacting in electronic payments as attractive as transacting with cash. Design and implementation of e-BAAT for facilitating access, inclusion, and awareness. Review customer disputes management/arbitration guidelines for all payments systems, particularly those run by non-bank. Review the existing dispute management system prevalent in the online/card payments. Examine the feasibility of using electronic evidence (e-charge slips) in the event of issuer disputes (for transactions done on PoS terminals). Engage with the Government in promoting non-cash mode benefit transfers to the citizens and Government to business payments and
person to Government payments using various form factors. Work in collaboration on pilots with the Government for using new technologies for collection of tolls on highways; integrated urban transport etc. Enhance the availability and acceptability of alternative payment instruments in lieu of cash. Promote convergence of mobile technology, and various form factors that could lead to mobile becoming a single instrument for carrying out financial transactions. Incentivize payments to be made electronically. Possible scenarios include rebates when dues to the Government are paid electronically. Put in place a transaction limit for payments made by cash and/or cheques (the Government has mandated that all payments by Government departments above Rs.25,000/- have to be made electronically).

Promote the use of prepaid payment instruments as cash substitute in general and specifically for financial inclusion, EBT and DTS transfers and e-commerce. Implement customer protection for all electronic payments including a “Zero Liability” framework. Dialogue with the Government for providing a tax incentive for merchants and customers to promote electrification of payment transactions. Monitor and review the implementation of grid based CTS in the country. With the consolidation of cheque clearing under grid CTS, the need for standalone clearing houses would be reviewed. Adopt Service Bureau approach for linking smaller centers/banks to CTS.

Explore the feasibility of settlement of decentralized payment systems (clearing houses) in central bank money. Examine the feasibility of implementing positive confirmation to the sender as available in NEFT to the other payment systems. Examine the feasibility of improving the visibility of the payment transaction by facilitating tracking of the transaction throughout its payment lifecycle. Develop a policy framework with a system of incentives to encourage payment system operators with a national level outlook and long-term vision to enter into the payment system landscape. Review the guidelines for prepaid payment instruments and consider mandating migration of paper vouchers to electronic mode.

Review the domestic money transfer guidelines and further fine-tune the role of non-bank payment system operators in facilitating domestic remittances. Review the extant guidelines on acquiring PoS/ ATM transactions in terms of the role of non-bank payment system operators, the feasibility of introducing white label PoS, need for mandating banks to deploy PoS terminals linked/proportion to the number of cards issued by them. Monitor the progress of white label ATMs and enhance the services
available at white label ATMs. Review the membership criteria of the payment systems to extend access to non-bank authorized payment system operators who achieve a critical mass in terms of the volume and value of transactions being handled through a Sponsor Bank arrangement. Monitor the progress of use of SWIFT as an alternate messaging network. Notify interoperable standards for all payment systems and products starting with standards for Micro-ATMs. Examine the feasibility of forming a standard-setting body under the overall guidance of RBI with representation from IBA, IDRBT and other stakeholders (including non-bank authorized entities, relevant industry associations, and experts) to formulate standards, for various payment systems. The proposed standard setting body would also formulate standards for migrating to a uniform routing protocol for payment systems.

Augment the existing hardware and network resources, besides optimizing the application software in the RBI operated payment systems like NEFT, NECS etc.; implementation of next generation RTGS. Monitor the progress of existing/new payment systems such as ACH, IMPS etc. Assess the processing capabilities of system participants to handle the increased volume in consultation with the stakeholders and draw up a plan for augmentation of the processing capabilities. Emphasize FMIs running systemically important payment systems and systems, which are of system-wide importance to have an appropriate risk management framework and perform stress testing and back-testing on a periodic basis for ensuring the adequacy of the risk management framework. Introduce settlement guarantee mechanism for the DNS systems operated by the Reserve Bank such as NEFT.

Review the security of ATM transactions in terms of introducing transaction limits, an additional factor of authentication for transactions carried out in odd hours, operational timings of ATMs in odd hours and in remote locations etc. Draw up exit criteria for authorized payment system operators including guidelines for managing orderly winding down of operations. Issue master circulars providing a consolidated view of various guidelines / instructions issued. Update and review Procedural Guidelines for various payment systems. Dialogue with stakeholders with a view to introducing a direct regulatory framework including authorizing intermediaries based on their turnover and other parameters, with special reference to customer funds protection and refunds. Rationalize self-assessment template for retail payment systems based on the new PFMI. Address the issue of identification document
especially in a country where the large segment is non-banked. Examine/review the
documents and identification requirements for carrying out payment transactions.

**2.9 Encourage use of proposed e-KYC service by UIDAI.**

Revisit the current KYC norms for various prepaid payment products and explore the
feasibility of a single, rationalized norm for semi-closed prepaid payment instruments
(which can be used only for the purchase of goods and services). Review the pricing
structure in card payments. Design a pricing strategy that would influence the
payment behaviour of customers, which encourages the use of electronic products
over cash and paper, based products. Draw up a strategy for disincentive vising usage
of cheques above a certain threshold limit by customers and corporate which may
include prescribing a cutoff limit for cheques cleared through clearing house
arrangements. Simplify the pricing structure, by reducing the number of bands and
providing a transparent and uncluttered pricing structure to the end user. Draw up a
policy framework establishing roles and responsibilities of banks and customers in
electronic transactions to minimize fraud, fix responsibilities and zero liability
protection to increase customer confidence in all electronic transactions. Examine the
feasibility of using Aadhaar as an authentication tool for all payment transactions.
Dialogue with the Government to issue CTS 2010 compliant cheques and to
discontinue the existing practice of 'paper to follow' in CTS by amending the treasury
rules. Implement an electronic GIRO system in the country. Examine the feasibility of
introducing cheque based GIRO. Review the need for standardizing the payment
instruments, message format, and payment instructions in consultation with
stakeholders. Examine the international messaging format like ISO 2000-22 for
adoption across payment systems. Review the feasibility of adoption of IBAN/BBAN
for standardization of account numbers.

Develop the full functionalities of a trade repository consistent with international best
practices. Ring fence the TR function of CCIL through a separate ownership structure.
Prepare a roadmap for FMIs in India viz. CCPs, CSDs, SSS, LVPS etc. for adhering
to the new FMI standards. Put in place an alternate backstop arrangement for
extending liquidity support to CCPs within the existing regulatory framework.

Ensure compliance with the new international standards Principles of Financial
Market Infrastructures by CCPs, CSDs, Trade Repository and other systemically
important payment systems. Devise a strategy for the creation of an acceptance
ecosystem for electronic products in which authorized private sector entities would
play a significant role. Encourage further adoption of mobile banking and NFC in payment systems. To achieve this it is necessary that MNOs and banking sector cooperate and collaborate with each other through a centralized platform such as for example the IMPS of NPCI. Develop an open standard for all contactless/ NFC transactions / systems independent of the payment system operators. Promote mobile PoS and low-costPoS to cover the large base of retailers across the country.

- Implement electronic GIRO in India either by putting a new system or by leveraging the existing and/or in pipeline payment systems. Increase the scope of GIRO for accepting e-commerce and m-commerce transactions and P2P transactions. Strive towards interoperability and portability in all payment systems including mobile payments; Aadhaar based payment systems etc. Aim for a streamlined IT architecture, which will eliminate point to point interfaces for various payment products through a “Payment Hub”. Provide linkages between Payment systems infrastructures to encourage convergence, portability, and interoperability. Promote funds settlement of all payment systems beyond a threshold, whether operated by banks or non-banks in RBI’s books of accounts. Prepare a resolution framework for Financial Market Infrastructures in line with international initiatives.

2.9 Model of Cashless Transaction

Paytm Model

Paytm is an Indian e-commerce shopping website launched in 2010, owned by One97 Communications, which initially focused on Mobile and DTH Recharging. The company is headquartered in Noida, India. It gradually provided recharging and bill payment of various portals including electricity bills, gas bills, as well as telephone bills. Paytm entered India's e-commerce market in 2014, providing facilities and products similar to businesses such as Flipkart, Amazon.com, Snapdeal. In 2015, it added booking bus travel.

Paytm is India’s largest mobile commerce platform. Paytm started by offering mobile recharge and utility bill payments and today it offers a full marketplace to consumers on its mobile apps. We have over 100mn registered users. In a short span of timePaytm has scaled to more than 60 Million orders per month. Paytm is the
consumer brand of India’s leading mobile internet company One97 Communications. One97 investors include Ant Financial (Ali Pay), SAIF Partners, Sapphire Venture and Silicon Valley Bank. We strive to maintain an open culture where everyone is a hands-on contributor and feels comfortable sharing ideas and opinions. Our team spends hours designing each new feature and obsesses about the smallest of details. Our approach is simple – to design something we’d LOVE to use ourselves. Therefore, we listen and take the time to understand our users and take their reactions most seriously.

Making stuff easy and intuitive is not our only goal. In addition to usability, we strive to create accessibility, convenience, and credibility. Simplicity reflects in our home page design and this mantra has been followed throughout the site and our apps.

The world is increasingly mobile: people want to access from wherever they are, whenever they need it. At Paytm, you have the option of recharging and shopping from whenever, anywhere and are equipped with a secure online wallet called Paytm Cash.

**Different product Line at Paytm –**

- **Online Recharge** –
  
  ➢ You can recharge online your mobile, DTH, Data card, landline, electricity, Income tax Gas, metro, financial services etc. Paytm within in a short period of time has made all sort of billing within few clicks and has saved a lot of time for the customers.

- **Online retail product** –
  
  ➢ Paytm is now selling almost everything from electronics to daily use, from fashion to home accessories it covers all.

- **Paytm wallet**-
  
  ➢ It is the most important reason for the success of Paytm. Paytm wallet is approved by RBI and now has been the largest wallet in India. It can be used to make payments across all the products on the website and can be used to make payments at a different website for e.g. PayTm has collaborated with
Uber, IRCTC through which payment can be done through the Paytm wallet so need to remember your debit card number refill your wallet once and use anywhere.

**Reason for Paytm success –**

- **Quick and Easy –**

Online recharge has become quite easy has now you don’t have to go to any vendor, you can straight away right at your home within secs can recharge almost anything.

- **Safe and secure –**

PayTm has invested a lot in making the website safe and secure for users to do the transaction on the website and it is PCI DSS certified.

- **Attractive deals and cashback –**

If any website should be given credit for the start of cashback trend online it should be Paytm. It was a unique idea instead of giving discounts they give cash back in the form of wallet money because of which the money remains with them only as the customer has to do some transaction on the website again in order to use that.

- **Effective promotional ads –**

Paytm has invested a lot in promotion of its products with tagline paytmkro and doing effective promotion on all social mediums with hashtag #paytmkro.

- **Newer deals-**

Flipkart started cash on delivery, yebhistarted to try to buy, myntra started an exchange on return similarly paytm started bargain and buy in which you can directly bargain with seller ask for a price and if the seller is ready you can buy at that price.

**Some stats regarding Paytm-**

- It is the India’s biggest transacting website (after IRCTC).
- It is the India’s fastest growing consumer internet brand
It has 100 million users and has around gross 100 crore-wallet money more than various functioning banks.

Ranked no.1 in shopping on google play store and no.2 in utility on apple store.

Alibaba has around 25% stake in One97 Communication.

90% repeat users.

15+ million visits per month.

10+ million unique users.

2.10 Impacts of Cashless society:-
Removal of currency notes and coins is likely to be the biggest monetary reform since the inception of the former itself.

- Banks are likely to be in favor of a cashless society as it saves them the cost of printing, inspecting, storing and guarding ‘paper’ money. Costs also include the security and labor involved in processing and transporting cash, maintaining automated teller machines, and regulating the amount of cash in circulation. According to an estimate, European banks could save between €45bn and €90bn annually if they get rid of cash from their systems.

- Prohibition on the use of cash could restrict criminals such as drug dealers and people involved in possible unregistered activities like prostitution and bet from doing business.

- Eliminating cash could also mark an end to bribery and other such corrupt motives as authorities would be able to track virtually all transactions. Tax crimes would also stop.

- Restriction on the possession of currency would remove the ‘zero nominal bound’ as a constraint on counter-cyclical monetary policy.

- According to a study by Wolman, countries could save about 1% of their GDP annually by switching over to ‘electronic’ currencies.

2.11 Challenges of Cashless Society:-

- Financial inclusion: ifweseethe present situation ofthe peopleIndia havingbank accounts, wecan see thatonlysixtypercent of thecountry’s
population has bank accounts. Still, a large number of people are not having the bank accounts. Government’s decision on opening them massive bank accounts under Pradhan Mantri Jan Dhan Yojna has perpetuated this cause of giving every citizen of the country with the account. More than 228 million accounts were opened under PMJDY scheme till July 2016. Most of these accounts were zero-balanced accounts and out of these many accounts are lying dormant in the bank. People without knowledge of operating accounts are in no way efficient enough to operate the account. There are several other reasons like lack of money, lack of income, illiteracy and lack of information to the account holders.

- **Lack of Infrastructure:** In India, there are many areas where bank is still a distant dream. The remote areas are still not having the banks at their doorstep. People have to move to distant places to have their money transactions in the bank. There are no ATM facilities in the remote areas. Eventhough the ATM are not fully backup with the electricity and other IT related facilities. It is the chief concern of the government and the banks to come up with the basic and secure infrastructure for the banking services.

- **Lack of Education:** People living in the remote villages and areas of the country are still not educated enough and are not able to operate the banking services effectively. Illiterate people with bank accounts in the country are not even good enough to fill in the bank forms to deposit and withdraw money. They have to take help of the people in the bank to fill in the forms and get their work done. It has become the primary responsibility of the government to start a campaign in the form of a mission to enable the people to discharge their duty by themselves. Lack of education and the poor syllabus done in the schools are the main reasons that they are not able to operate their bank accounts. Furthermore, illiterate and the people with less exposure to such facilities are not able to operate the cards. These people are not aware of the security measures of the PIN number etc. People should be made aware enough so that they can use the basic banking facilities.

- **Access of Technology:** Technology is the backbone to this banking revolution. Technology must be available in all the areas of the country; it means all the banks at the branch level even in the
remote areas should have the access to the technology. The technology must have all the aspects that can help the individuals to do the things better and effectively. The second major aspect of the technology is that it should be easily handled and used by the people. It is one of the major aspects of the banking that the consumer must aware of the technology and should be able to use it effectively for the purpose. The people are not aware of the technology and are not so involved in the use of it.

- **Large number of people to be covered**: As discussed earlier there are large numbers of people that are to be covered. Although many accounts are opened during Pradhan Mantri Jan Dhan Yojna, but many of them are only lying dormant. Still forty percent of the India’s population are not having access to the bank and banking services. It needs a proper penetration into the market to give the services of banking to the people. It is one of the major challenges for the government to include large numbers of people in the mainstream.

- **Unwillingness to join cashless moment**: Most of the people due to one reason or the other are not willing to join the cashless banking solutions. The major reasons are the sellers are not willing to accept the cards and cheques as the sale through POS terminals and cheque transactions will be accounted for. The other major aspect is that the sellers mostly ask for the transaction fees that makes the things more costly. The only solution to this problem is that if large number of people joins the revolution of cashless payments by virtue of using the debit or credit card it will be easier for the banks or the service provider to lower the transaction fees and adjust to the normal phenomenon.

- **Uneven profile of the participants**: The banks who are participating in this mission are having uneven status. The national banks and privatized banks have different priorities and the services are to some extent are uneven in this context. As maximum cards are issued by nationalized banks, they have a different level of motives. The service mission is missing in private banks and hence creates the affair costly.

- **Customer awareness is missing**: Consumers are not aware about the different aspects of cashless transactions. Service tax, transaction fee, security of the account all matters should be stressed upon so that the consumer gets awareness
and become an effective party to the mission.

- **Time taken for a transaction:**
If you have driven through a tollbooth, or procured parking, you recognize that operators keep actual modification as a result of they expect notes to return in with a selected denomination. The time taken is not typically to tender modification for notes, except for printing a receipt. Watch a tiny low search mercantilism high frequency purchases like mobile recharge cards, candies or cigarettes, and you’ll see that the pace at which they shut a dealings with a client is crucial for them: they don’t usually provides a bill for every dealings, and that’s a haul once it involves taxation. However from a user’s perspective, consider the extra time it takes: For a card, you wish to put it in an exceedingly PoS machine, get a user to input a PIN, and if there is property, expect the businessperson to induce a confirmation before you will leave. For digital transactions, you wish to induce a user to scan a businessperson QR code, demonstrate with a PIN (ideally). Alternatively, you wish the businessperson to send a payment link to a client, for the client to receive it, open a page, sort in details and complete dealings. Then expect the businessperson to receive a confirmation of the dealings before you will leave. Are you able to imagine doing this whereas exiting a parking or at a tollbooth? If you are shopping for an Rs. two Pulse candy, imagine the friction concerned, as indicated here. The fastest means that of payment is associate degree NFC machine, however most phones are not NFC enabled in India, nor do merchants settle for NFC payments.

- **Security issues:** The weakest security link in any dealings is not the technology system, however the user, and their lack of understanding of security problems. To induce a way of this, to withdraw cash from ATM’s, some individuals were giving others their card and PIN numbers. For example: this and this. However, there square measure alternative risks too: In 2011, it absolutely was believed that payment entranceway CC Avenue was hacked. HDFC Bank too. Last month, HDFC and Axis Bank were hacked too. The distinction between money and digital is that money limits the harm to the loss of a note or of variety of notes. In digital, the risks area unit higher: the advantage of wallets was that you just may transfer cash to them bit by bit, and lower your risk of exposure. That after all doesn’t mean that digital shouldn’t be associate choice – I’m not voice communication that – however it shouldn’t
essentially be the sole choice. It additionally does not mean that storing all of your profit your home is safe; however the move to create India a cashless country will increase security risks for all voters, with every account/wallet company changing into one purpose of failure. No privacy with cashless: a switch to cashless implies that every and each dealing is tracked and documented. This is often nice for governance, with taxation, however there's no protection for voters, on UN agency owns that information, whom they'll share it with, and the way it'll be utilized. If I’m employing a case, wherever is that the law that stops usage of that information for advertising to me? By change to cashless, you’re not giving users a selection. India does not have a privacy and information protection law, and ingloriously enough, the Indian government has gone to court disputation that there isn’t a elementary right to privacy within the country. To quote the professional person General of India, representing the Union of India, in August last year: “Violation of privacy doesn’t mean something as a result of privacy isn’t a secure right”

- **Language compatibility:** Paytm has recently updated their application with some options enabled in Indian languages. Mobikwik has done English and Hindi. PhonePe works in English, Hindi and Tamil. However, most mobile handsets don’t have associate Indian language interface, as don’t most applications and services. Olla is obtainable in Indian languages just for drivers, not passengers. Except Snapdeal, no ecommerce company tried going the Indian language means. There’s an area of the population in India that still isn’t able to scan and write, refrain having the ability to scan and write English, whereas we tend to don’t have phones that area unit area unit in Indian languages and apps that aren’t in Indian languages. The digital divide here is very large. Physical notes area unit a visible medium of exchange.

- **Ability problems (between payment systems):** Money is interchangeable: you do not want an association, associate application or associate account to exchange money. Here, you have a scenario wherever banking company of India does not permit payment into a Paytm case via net banking, or case-to-case transfer is not allowed. There is the Unified Payments Interface, originated by the bank in hand cluster NPCI, wherever the Federal Reserve
Bank of India has not allowed case-to-case transfers. Customer’s area unit locked-in whether or not it is to their checking account (because you wish banking systems useful to transfer money) or to their wallets.

- **Value of transaction: Bourgeois costs:** Merchants want an operating net association to simply accept digital payments. They have to pay a monthly rental for a machine, or a smartphone with associate application to simply accept payments. On Credit cards, bourgeois area unit charged a merchant discount rate (MDR), associate inter-bank exchange fee, of 2.5-1.7% per dealing. On debit cards, they have to pay zero.75% per dealing below Rs, two000 and 1% for transactions on top of Rs 2,000. For UPI, merchant’s area unit charged zero.75% per dealing and different prices (on par as debit cards.)

- **Client costs:** you wish a smartphone, a web association and/or need to pay USSD charges (Rs zero.5 per session) and information charges once applicable. Value area unit applicable once cashless is born-again into cash. From associate tally paper on process prices on cheques and ATMs: “The feedback received from completely different banks discovered the subsequent – a complete value of Rs.1.95 per Rs.1000/- that excluded the price of insurance and dispensing money at ATMs; the price of dispensing money through ATMs alone is roughly Rs.17 per dealing. The chance loss for holding idle money would be roughly 9%; the price per transaction at ATMs ranges from Rs.6.60 to Rs.15.88 just in case of absolutely outsourced operations relying upon the service supplier and space of operation.” Not enough folks have mobile connections, a web association (which will survive huge usage in times of emergency), or use it often, on a smartphone, that supports all Indian languages, with associate application that supports all Indian languages. Net property is not reliable or obtainable or as low-cost for users as money. The process of constructing digital payments in India is not straightforward, and is time overwhelming. Making digital payments is costlier for either the bourgeois or the client, or both. Digital payments will cause major security risks, with adequate processes not in situ for straightforward redressal, for either bourgeois or client. Above all, not enough is being done to coach the buyer, the weakest chain within the link. Digital payments are not one normal
like cash: cash in one style of account is not an equivalent as in another style
of account, and it is not practical, not like money.

Parity between money and digital cash is perhaps not possible to realize, however
there are a unit suggests that of obtaining nearer to it: by making associate incentive
structure for that switch, which involves creating money dearer than cashless, and
higher social control. Giving associate revenue enhancement rebate for exploitation
cashless strategies of payment, that brings parity between money and cashless. Even
on-line, merchants is incentivized to charge less for digital payments, and additional
for money on delivery.

Digital Payments businesses have tried their hand with cash backs, and lower rates for
digital purchases have already inspired digital payments. Incentives can be given to
businesses that they will transfer to customers.

Every reform has some pros as well as cons. There are more than a few challenges to
our proposed cashless system, which are as follows-

- People still rely on the idea of money being ‘physically’ realizable. For some
  psychological reason, ‘paper’ money is revered more than ‘plastic’ money or
  ‘digital’ money. Cash keeps a check on people’s spending habits.

- Anything that is technological comes with a baggage of risks and security threats.
  A very high and unreachable degree of security would be needed as a deterrent to
  hackers and cyber criminals.

- The idea of a cashless society will not be readily popular among a certain section
  of our demographics. While a user-friendly model might not necessarily require
  consumers to be tech-savvy, there would still be some sort of digital awareness
  required to understand the working of a society with no cash. People who have
  grown up and lived through times when a substitute for cash was not even thought
  of might face some difficulty in adjusting to the world without currency notes.

- All the existing cash in the world cannot be removed or deemed ‘abandoned’ at
  one go. In addition, when it comes to money, reassurance is the thing that matters
  most. For a complete switchover to the new monetary model, the voluminous
amount of cash presently circulating in the market would have to be converted into an equivalent number of ‘digital’ points.

- Developing economies have an added challenge in the form of high levels of illiteracy among the masses. For example, in India itself, there are large sections of the rural population who have not seen a bank in their lifetimes, let alone owning a bank account. The only way they recognize money is through currency notes and coins.

An ideal cashless economy should look to incorporate all the benefits of a digital monetary system and to find solutions to the aforementioned challenges, in order to achieve wide acceptance among the people who earn, spend and consume.

2.12 Way to remove all cash from the economy:

There are many possible ways of going about this but an outright prohibition on the use of cash is certainly not going to work. Rather, the central bank or authority could ‘tax’ the use of cash, leading to the value of the paper currency depreciate relative to the reserves, say by 10% annually. By managing the exchange rate between currency and reserves and pushing it further, the central bank could remove the ‘zero lower bound’ and tax the use of currency, which would thus tax the criminal and anti-social enterprises that largely rely on currency.

So a full restriction on the use of cash could be seen as a limiting version of extreme policies that tax currency by allowing it's valued to depreciate relative to bank reserves.

When the exchange rate between currency and reserves becomes large enough, cash in the economy would cease to exist.

2.13 Current Destination towards a Cashless Economy

The first and the foremost pre-requisite for building an economy having no cash is to have every single entity, whether an individual or a small-scale or a large-scale firm, to be registered under unique IDs. This can be achieved biometrically, as has already been done in India with the advent of the Government’s UID scheme named ‘Aadhar’. In addition, already, nearly 40 million bank accounts in India have been linked with Aadhar. Such feasible and low-cost biometric systems could easily
support electronic payment systems, which could replace the current hand-to-hand currency system.

In Nigeria, another developing economy, the Central Bank has launched a ‘Cashless Nigeria’ Project whose objective is to reduce the usage of cash in transactions as far as possible.

The use of EMV chip cards is gaining momentum in Kenya and other countries in Eastern and Central Africa. When used with a PIN (Personal Identification Number), the chip verifies that the customer is producing his or her own card and only then authenticates the transaction. This has reduced incidences of credit/debit card fraud and helped in establishing faith in electronic payment systems among the masses. Just recently, Master Card and Equity Bank unveiled a partnership that plans to distribute 5 million EMV chips and Pay-Pass enabled cards in Kenya over the next 18 months.

Far away in Canada, the Royal Canada Mint is looking to the future with the Mint-Chip, a new and innovative product that could become a digital replacement for coins.

2.14 Conclusion

Cashless Transaction System is a new and easier way of paying for goods and services. Cashless Transaction System was introduced in the 1950s and is now an essential form of ready money, which reduces the risk of handling a huge amount of cash. It includes debit cards, ATMs, smart cards; etc.

References-


