

# CASHLESS INDIA: JOURNEY OF A NATION

**Debasish Naskar**

*M. Phil (Research Scholar), Department of Commerce, University of Calcutta*

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*Lecturer, Department of Commerce, Lalbaba College, Kolkata*

**Abstract:** The world in which we are living is continuously on the move. It is changing every day and in every aspect and consistently compelling us to change the way we live. Every now and then creates hell and heaven difference with new invention. With each passing day we are becoming more and more dependent on technology. In this era of digitalisation, cashless economy has a great scope in India. Demonetization has thrown a challenge to every citizen in terms of limited cash which has provide a base to opt for cashless mode.

The proposed study focuses on the impact and importance of cashless economy and its hurdles in India. Cashless economy will reduce cash related robbery thereby reducing risk of carrying cash. Cashless economy helps in modernization of payment system, Reduction in high security and safety risk, Reduction in the cost of banking service and also curb banking related corruption. It will also reduce cash related corruption and attract more foreign investors to make investment in the country.

Electronic banking system makes banking transactions easier by giving services closer to its customers hence improving banking industry performance. But, the financial safety over the digital payment channel must be conformed for fulfilment of cashless economy.

**Keywords:** Cashless Transactions, Demonetisation, Information Technology, Economic Growth, Financial Literacy, Cyber Security.

## 1. Introduction

### I. Concept of Cashless Economy

A cashless society is an economic state where financial transactions are take place through transfer of digital information (usually an electronic representation of money) between the transacting parties, rather conducted through money in the form of physical banknotes or coins. Cashless economy does not refer to an economic system where goods and services are exchanged for goods and services (the barter system), but rather it is an economic evolution which discourages use of currency as a medium of exchange and encourage digital mode as an alternative. In a cashless economy absolute absence of cash transactions in the economic settings is not essential rather need for cash transactions is to be kept to the barest minimum. ( Kumari & Khanna, 2017)

### II. Cashless India:

**An Initiative of GOI:** Among the various initiative taken by the Government of India, Digital India is prominent one. Its vision is to transform India into a knowledge economy and a digitally empowered society. Ministry of Electronics and Information Technology, Government of India envisages 'Paperless, Cashless and Faceless services' across the country, especially in rural and remote parts of India.

A cashless economy is one in which all the transactions are made by using electronic channels such as internet banking, banking cards, USSD, AEPS, UPI, mobile wallets, point of sales machines, mobile banking, micro ATM etc. In a cashless economy the circulation of physical currency is minimal.

Demonetization has a big role to spread out the concept of Cashless transactions in India. After demonetization payment habit has changed as the economic environment forced the people to make digital payment. Most of the people started using electronic media for their transactions.

An increased use of digital means of transaction instead of cash enable system helps keep in track detailed record of all the transactions, ensure more transparency in business operations and money transfers. The increased use of credit cards/debit cards will definitely reduce the amount of cash that people have to carry with them and also reduces the risk and the cost associated with that.

The government is working at various levels to reduce the over dependency on cash and to promote a Cashless economy. Government has already announce two schemes - Lucky Grahak Yojna, Digi Dhan Vyapaar Yojna for customers and traders to promote mobile banking and E-payments.

## 2. Literature Review:

According to Roth (2010), developed countries of the world, to a large extent, are moving away from paper payment instruments to electronic ones. e-finance, e-money, e-brokering and e-exchanges are the great tools for functioning of the cashless economy. According to CBN (2011), an effective and modern digital payment system is positively correlated with economic growth and in the growth of Global economy, digital currency has a key role.

Marco & Bandiera (2004), emphasize that, increased usage of digital payment instruments strengthens countries monetary policy. Also the current level of e-money usage does not create a threat to the stability of the financial system. However, we can conclude that central banks may lose control over monetary policy if the government does not adopt a responsible fiscal policy.

According to a report by Price Water House Cooper (2015), India's unbanked population was 233 million. Even people who are connected with banking system, do not properly access with the same due to unavailability of services. There are only 1.46 million points of sale which accept payments through cards. So, the facility of use debit or credit card is limited.

According to a study conducted by Boston Consulting Group and Google noted that, wallet users have already surpassed the number of mobile banking users and are three times the number of credit card users.

Cobb (2005), Electronic Payments has a significant number of economic benefits apart from their convenience of use and safety. The Electronic Payments system creates greater transparency and accountability leading to greater efficiency and better economic performance.

Singh & Ajit (2017), states how mobile will play a crucial role not only in the cashless India but also in the Global Economy along with the pros and cons of cashless economy. The authors also describe the popular and convenience digital payment instruments such as Mobile wallets, Card based payment system, Mobile banking system etc. Cybercrime and security challenges are also discussed.

NC (2016), India is a high cash-usage economy and demonetisation was a bold steps by the Government of India to reduce black money and fake currency and to move India towards a cashless economy. During demonetisation, online transactions has increased a lot but it has a negative impact on small merchants. The e-wallets apps are more attractive for consumer as these apps are free of cost and consumer can benefited by different discount on product through cashback offers.

## 3. Objective of the Study:

The objective of the proposed study is to discuss the emergence and needs of Cashless Economy in India and the challenges that it may face to build a digitalised India. In this study attempt has been made:

- To through light on the needs and benefits to transform India from a cash to cashless economy.
- To through light on the various modes of digital payment system.
- To through light on the various challenges in transforming India from cash to cashless economy.

## 4. Research Methodology & Data Source:

The proposed study is descriptive in nature and is based on secondary information sources collected from various research papers, reputed journals and magazines, University of Calcutta library, various annual report published by Government of India and other related websites to this matter.

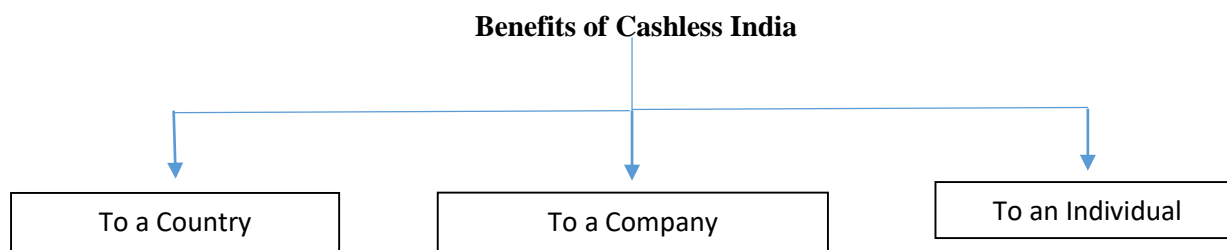
## 5. Demonetisation Effect

The story of cashless economy of India started with the breakthrough of Demonetisation. 8<sup>th</sup> November 2018 was an eventful day for Indian Economy. The Central Government took a bold steps with the withdrawal of 86% of Indian currency by demonetising Rs. 500 and Rs. 1000 notes. The sudden move creates a shortage of cash in the market and Indian financial system realise the needs of cashless economy.

Indian economy is one of the largest economy in the world. But, the main problem of this economy is over dependency on hard core cash. Millions of businesses and hundreds of millions of people having either no access to bank or either don't have any bank account. This business houses use cash for their day to day transactions. The individuals use cash to pay for everything starting from groceries to land purchase to hospital stay to any other kind of activities. That's why there is a shadow economy exist alongside the main economy. That's leads to countless hidden transactions, which are almost impossible to trace. To overcome those problems, Cashless economy is the ultimate solution. We can eliminate those problems with the implementation of digital payment system.

## 6. Benefits of Cashless India

The Benefits of Cashless India, we can discussed from three view points.



### 6.1. To a Country:

**6.1.1. Positive impact in an Economy and its Growth:** Cashless economy has play a big role in prosperity of an economy and its growth. Cashless economy has higher potential to grow faster than traditional cash based economy. (Oyewole, J.G. Maude, M. & Onuh,2013)

**6.1.2. Fall in Interest rate:** Cashless economy creates larger liquidity in monetary system as money lies with bank longer time. Thus, it ultimately lead to lesser interest rate.

**6.1.3. Reduction of Black Money:** In a cashless economy transactions are happen through banking channels. Thus it helps in curbing generation of black money.

**6.1.4. Controlling Real Estate Price:** Most of black money are invested in real estate sector which ultimately inflates the price of real estate market. Due to huge investment in that particular segment, remains overvalued most of the time. Since, cashless economy reduces black money, real estate price remains within control.

**6.1.5. Affordable Housing:** Since black money are reduces and real estate prices are remains within control, people can get own shelter at affordable prices.

**6.1.6. Reduced Red Tapism and Bureaucracy:** In a Cashless economy transactions are take place through electronic means which are easily traceable. Hence this system make people more accountable and ultimately reduces corruption and improve both service time and quality.

**6.1.7. Crime Control:** Uses of physical cash are more prone to cash related robberies and other cash related crimes. Introduction of cashless economy eliminate that kind of risks.

**6.1.8. Economies of Scale in Banking Services:** Cashless economy enhances the volume of digital transaction that in turn increase the volume of deposit to bank. Banks has get the opportunity to accumulate huge deposit from business houses and public. Thereby they can invest money with proper planning by evaluation of various alternatives. Thus it facilitate banks to invest in big project which has huge fund requirement.

**6.1.9. Anti-Money Laundering & Tax Avoidance:** An increase use of digital payment system instead of cash enable a more detailed record of all the transaction that take place. Which ultimately make the business operations more transparency and reduce tax avoidance and money laundering.

**6.1.10. Hygiene:** In a Cashless economy less number of currency notes and coins exchange hands and therefore bacterial spread through handling notes and coins reduces. Thus it improves hygiene.

### 6.2. Benefits to accompany:

**6.2.1. Reduces Queuing times:** Since digital payment system operate much faster than cash transaction, it save time. Thus integrating with cashless transaction offers more satisfaction, time saving and enhance better performance.

**6.2.2. Eliminates cash handling costs:** Cashless system eliminates all cash handling related cost as there are no possibilities for cash floats in a cashless economy. It also eliminate cash handling risk.

**6.2.3. Less Accounting:** Cashless system relieves from lot of accounting work burden. Since this system facilitate with automated receipt and payment, count and match daily cash ledger are not required.

**6.2.4. Reduce physical Risk:** Cashless system eliminates risk of theft from external parties and reduces risk of embezzlement by staff.

**6.2.5. Helps in management information and Decision Making:** Cashless transactions gives real time management information in form of soft database to the management. That helps the management in proper analysis of all the spending and receipts and all other aspects of the business, thus management can take right decisions. Cashless system helps the management in quick decision making.

**6.2.6. Helps in Enhancing Investor Trust:** According to (Eccles, 2001) shows that companies with fuller disclosure win more trust from investors. Since Cashless system brings better disclosure and transparency, it is likely to improve investor trust.

### 6.3. Benefits to an Individual:

**6.3.1. Ease of Transaction:** In digital payment system no need to carry currency notes or coins. Digital Banking also eliminates the need to stand in long queues in bank. One can make payment or transfer money within few seconds sitting at home with the help of digital technology.

**6.3.2. No fear of Burglary or Theft:** In Cashless system risk of burglary or theft is almost eliminated, since there is no physical appearance of currency. Furthermore, we can remotely block a lost debit card or mobile wallet but a lost currency can never come back.

**6.3.3. Track on Spending and Receipts:** Individuals easily can track spending and receipts as every transaction is recorded online and the same can be access at any time.

**6.3.4. Consumer Discount and Waivers:** Government is offering various promotional discounts and waivers to consumers who opt to cashless system. e.g.

**6.3.4.1. Railway Tickets:** For train tickets booked at railway counters and payment made through UPI/BHIM, a 5% discount is offered on the total value of the basic fare, subject to a maximum amount of discount of Rs. 50 on a ticket.

**6.3.4.2. Railway Catering, Accommodation and Retiring rooms:** 5% discount is given on digital payment for railway Catering, accommodation and retiring rooms.

**6.3.4.3. Insurance:** Public sector insurers shall offer discount on the premiums paid for insurance coverage. General insurance companies to offer up to 10% on premium while Life Insurance Corporation to offer 8% discount on the premium payable for new insurance policies sold online subject to the payments made digitally.

**6.3.4.4. Fuel:** 0.25% discount is offered on digital purchase of fuel through credit/debit cards, e-wallets or mobile wallets.

**6.3.4.5. Highway Toll:** 10% discount is offered on National Highway toll payment through RFID or fast-tags.

**6.3.4.6. Goods and Service Tax:** As much as 20% of total GST paid up to Rs. 100 per transaction would be provided as cash back on digital payments made through RuPay cards, BHIM App and UPI.

### 7. Cashless mode of Transaction:

To build a successful cashless economy the Government of India enabled a large number of alternatives for digital transactions. Which are described hereunder –

**7.1. Banking cards:** Banking cards offer consumers more convenience, security and control than any other payment method. There are wide variety of cards are available such as, debit card, credit card, prepaid card which offers enormous flexibility to the user. Banking cards use two way authentication process for secure the security aspects e.g. secure PIN and OTP. Some example of card payment systems are RuPay, Visa, MasterCard, etc. Use of card payment system save both time and money, and thus enable ease of transaction.

**7.2 Aadhaar Enabled Payment System (AEPS):** AEPS is a bank led model which allows online interoperable financial transaction at PoS (Point of Sale / Micro ATM) through the Business Correspondent/Bank Mitra of any bank using the Aadhaar authentication. Transaction takes place recipient's bank account and the host's bank account that are linked with the Aadhar card. Incase of two or more accounts linked with one Aadhar card, the account used for LPG subsidy will be considered.

**7.3. MICRO ATMS:** Micro ATM is a mini version of an ATM. Micro ATMs are like modified point of sales terminals and the terminal can connect to banking network via GPRS to perform banking transactions. Micro ATMs contains card swipe facility and fingerprint scanner and these machines are carried by bank representative at remote/mobile locations. These machines are handy and not capable of keeping any cash and the cash is carried by the bank representative along with him/her and he/she is also responsible for collecting a cash and depositing it user account.

The Micro ATMs can perform following transactions -

- Cash Deposit
- Cash Withdrawal
- Fund Transfer
- Balance Enquiry
- Service Request acceptance
- Aadhar Seeding
- eKYC based saving account opening

**7.4. Unified Payments Interface (UPI):** Unified Payments Interface is a system that integrate multiple bank accounts into a single mobile application (of any participating bank). It merging several banking features, seamless fund routing & merchant payments into one roof. It also serve to the “Peer to Peer” collect request. In UPI process each Bank provides its own UPI App for Android, Windows and iOS mobile platform. It also serve to the “Peer to Peer” collect request.

**7.5. Mobile Wallets:** Mobile wallet is the most popular way to carry cash in digital way. User needs to link payment card information in mobile device or to the mobile wallet application. Through smartphone, tablet or by using any other means digital platform user can make payment instead of using physical plastic card. Most banks have their personal e-wallets and some private companies. e.g. Paytm, Freecharge, Mobikwik, Oxigen, Airtel Money, Jio Money, Vodafone M-Pesa.

**7.6. Banks Pre-Paid Cards:** Prepaid credit card is issued by a financial institution that has been secured with a prepayment. Prepaid cards might looks like a debit or credit cards but there have some important differences between them. Unlike a debit card, a prepaid card is not linked with a bank account. Generally when we use prepaid cards, we are spending money that you have already loaded into the card.

**7.7. Point of Sale:** A point of sale (PoS) is the place where retail transaction is taken place. POS is also known as a “point of purchase”. There are three types of PoS such as, Mobile PoS, Virtual PoS, and Physical PoS. Mobile PoS requires Smartphone, App from bank, Integrated or external card and /or biometric reader, Reader connects using jack or Bluetooth, Internet connectivity 2G/3G/4G, or Wi-Fi, QR code and Bar code reader. Virtual PoS requires Smartphone and /or Web browser, Internet connectivity 2G/3G/4G, or Wi-Fi or landline, E-payment gateway, Virtual A/c for transactions, may need QR code. Whereas a Physical PoS requires Handheld Device with card and /or biometric reader, Merchant Bank a/c, Internet connectivity GPRS/Landline.

**7.8. Internet Banking:** Internet banking, also known as online banking, e-banking or virtual banking. It is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution’s website.

**7.9 National Electronic Fund Transfer (NEFT):** NEFT is a nation-wide payment system. Under this system individuals, firms and corporates can electronically transfer fund from the account of one bank branch to any other account with any other bank branch in the country participating in the same. Benefits of NEFT are ease of payments, faster processing and convenient of its use. In case of online NEFT transfer, the maximum amount of funds that can be transferred per customer ID per day is Rs. 25 Lakh but NEFT transfer from branches has no maximum limit.

**7.10. Real Time Gross Settlement (RTGS):** Real Time Gross Settlement is electronic payment systems that allow individuals to transfer funds between banks. Under RTGS, the funds transfer takes place on a real time basis, at the time the request is received. It is one of the fastest interbank money transfer facility available through banking channels in India. The beneficiary bank has to credit the recipient's account within 30 minutes of receiving the funds transfer message. The minimum amount to be remitted through RTGS is 2 lakhs and there is no upper ceiling for RTGS transactions.

**7.11. Immediate Payment Service (IMPS):** Immediate Payment Service offers an instant, 24X7, interbank electronic fund transfer service. It is an emphatic tool to transfer money instantly within banks across India through mobile, internet and ATM. IMPS is not only safe but also economical both in financial and nonfinancial perspectives.

**7.12. Mobile Banking:** Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct different types of financial transactions by using a mobile device such as a mobile phone or tablet. It uses software, usually called an app, provided by the banks or financial institution for the purpose. Each financial institution provides its own mobile banking App for Android, Windows and iOS mobile platform(s), through which the user/consumer make his/her transactions.

## 8. Hurdles in Cashless Economy:

**8.1. High Cash Dependency:** Developing countries are mostly depended on Physical currency. Total cash flow to GDP is above 12% which is very high amongst the developing countries. This signifies that we are still a cash dependent economy.

**8.2. Inadequate Infrastructure:** For building a successful cashless economy the basic needs is set up a digital infrastructure. But the majority of Indian population are poor and they live in rural area and most of all they do not have access of smartphones and are not aware about cashless payment through basic handset. Again, India has the highest number of bank branches in the world, but rural India still not properly connected with banking system. They have to travel miles to avail the banking facility. Although India is the second largest population in the world, but it has only 203458 ATMs and 3653010 Point of Sale terminals and most of them are in urban area.

**8.3. Internet Penetration:** As per a report titled “Internet in India 2017” by Internet and Mobile Association of India (IAMAI) and Kantar IMRB, the number of Internet users in India stood at 481 million in December 2017, which is second highest in the world. But the usage of same are mostly dominated by urban people. Urban India with an estimated population of 455 million has 295 million internet users. Whereas rural India, with an estimated population of 918 million has only 186 million internet users (2011 census). This signifies the high level of inequality between the lives of urban and rural people and the infrastructure. So, we can say that there is a very low internet penetration in rural India. But a countries digital payment system or cashless economy would not success without the active participation of all level people.

**8.4. Internet Shutdowns:** Internet Shutdowns are one of the major constraint in digital payment system of India. Although, the problem is exist in many states, Jammu & Kashmir and Rajasthan are leading states in that problem. Frequent internet shutdowns results in disruption in work and huge loss to individuals and business houses. Serious internet shutdown may hamper the objective of a countries of being digitalised.

**8.5. Financial Literacy:** A survey was conducted by Standard & Poor’s Financial Services LLC, where it was found that 76 percent of Indian adults are unable to understand key financial concepts, which is seven percentile points lower than the worldwide index. So, there is an urgent requirement of an well structured Financial Literacy programme. Because, a financially aware individual is more likely to adopt the digital payment system.

**8.6. Cyber Crime:** The main drawback of digital payment system are cyber threats and security. Most banking and financial institution are subject to cyber-attacks. Hackers are innovate new technique to siphon funds. There is high risk of compromise valuable data. Banks need to ensure well maintained and upgraded system so that it prevents the all type of cyber frauds.

## 9. Conclusion:

Indian economy has come a long way from late 1980s, when computerization in banking sector has just begun to the present era of digital banking system. Now a day’s digital payment system is an essential part of an economy. It helps in economic welfare and prosperity of a nation by eliminating black money and fake currency. Although digital transactions have gone up in recent past, but a successful transformation will depend on a number of things, such as- digital infrastructure, awareness, technological development, government intervention etc. Digital payment system have a number of benefits such as, Reduced Red Tapism and Bureaucracy, Economies of Scale in Banking Services, Anti-Money Laundering & Tax Avoidance, Eliminates cash handling costs, Track on Spending and Receipts. But it also has some drawbacks. The main hurdles of building a cashless economy are the security issue, cyber frauds and inadequate infrastructure in India. To making India a cashless economy, we must need to improve the digital infrastructure system and technological development with keep in mind the security aspects.

So, at the end we can conclude that, Cashless economy can be achieved by adoption of proper methods of digital payments. It only requires full proved new financial policies, centralised administrative control, regular monitory attention on the bankers, government agencies and other private service.

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