

## CASHLESS INDIA- THE WAY AHEAD

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### ABSTRACT

*India is the fourth-largest user of cash in the world. India has one of the highest cash to gross domestic product ratios in the world, and lubricating economic activity with paper has costs. According to a 2014 study by Tufts University, "The Cost Of Cash In India", cash operations cost the Reserve Bank of India (RBI) and commercial banks about Rs 21,000 crore annually. A shift away from cash will make it more difficult for tax evaders to hide their income, a substantial benefit in a country that is fiscally constrained. Nandan Nilekani, termed demonetization as "a defining point in India moving to cashless." According to Government of India the cashless policy will increase employment, reduce cash related robbery thereby reducing risk of carrying cash. Cashless policy will also reduce cash related corruption and attract more foreign investors to the country. In many countries introduction of cashless economy can be seen as steps in the right direction. It is expected that its impact will be felt in modernization of payment system, Reduction in the cost of banking service, Reduction in high security and safety risk and also curb banking related corruption. Electronic banking will be made banking transaction to be easier by bringing services closer to its customers hence improving banking industry performance. This paper emphasis on cashless economy, background, methods of digital payment, advantages and barriers in going cashless and future of cashless transactions in India.*

**Keywords:** - *Cashless Policy, Foreign Investors, Modernization, Electronic Banking.*

### INTRODUCTION

"Era of paper currency is over; India is stepping into digital age."

- Prime Minister Narendra Modi

Cashless Economy can be defined as a situation in which the flow of cash within an economy is non-existent and all transactions must be through electronic channels such as direct debit, credit cards, debit cards, electronic clearing, and payment systems such as Immediate Payment Service (IMPS), National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS) in India. Since the 8 November announcement of the demonetization of high-value currency notes, several incentives to promote cashless payments have been announced, including waiver of service charges on card payments and reducing the merchant discount rate. The government hinted that it will consider and work with the various stakeholders for the early implementation of the interim recommendations submitted to Prime Minister Narendra Modi by the chief ministers' panel, headed by Andhra Pradesh chief minister N. Chandrababu Naidu, on digital transactions. Finance minister Arun Jaitley proposed a slew of measures to hasten

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India's movement to a cashless economy. Among them are bans on cash transactions more than Rs3 lakh, tax breaks for the creation of a cashless infrastructure, greater usage of non-cash modes of payments and making Aadhaar-based payments more widespread. To give a major push to Aadhaar-based transactions, the government announced that one million biometric PoS machines will be installed by March and subsequently scaled to two million by September. The recent move of demonetization has forced the people to rethink the mode of transaction and trade. The demonetization drive was initially a tool to tackle the problem of black money and fake currency, but since then, the narrative has clearly shifted its base. Now it is a way to promote cashless transactions among citizens, which is really a good idea for the country. But the question is whether India is ready for it or how feasible it would be for the government to turn India into a cashless economy by 2020. The effect of demonetization was twofold – a large number of Indians, are forced go cashless, whether by debit card or via e-wallet, or by trusting the brands of the major players like PayTM or Mobikwik. Secondly, the convenience of e-wallet transactions via mobile phones made the customers and merchants educate themselves, out of necessity, on how the system worked. Today, this has brought both customers and merchants a lot closer by trusting a payment bank with the help of mobile interface.

## II. REVIEW OF LITERATURE

Globally, there is a tremendous interest among policy makers, academicians, and commercial enterprises to explore the possibilities of moving towards a cashless economy. It is widely believed that the movement from cash to cashless economy has significant benefits.

**Jain, P.M (2006)** in the article "E-payments and e-banking" opined that e- payments will be able to check black money. Taking fullest advantage of technology, quick payments and remittances will ensure optimal use of available funds for banks, financial institutions, business houses and common citizen of India. He also pointed out the need for e-payments and modes of e-payments and communication networks.

**Ashish Das, and Rakhi Agarwal, (2010)** in their article "Cashless Payment System in India- A Roadmap" Cash as a mode of payment is an expensive proposition for the Government. The country needs to move away from cash-based towards a cashless (electronic) payment system. This will help reduce currency management cost, track transactions, check tax avoidance / fraud etc enhance financial inclusion and integrate the parallel economy with main stream.

**Moody's Analytics (2013)**, 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. In this paper, apart from identifying some of these benefits for India, there are two major issues we address: the share of cashless -both in terms of transactions as well as value and the factors that affect them most. This provides a roadmap to increasing the share of cashless transactions in the economy.

**Zandi et al. (2013)**, studying 56 countries over 2008–2012, calculate that USD 983 billion were added to their cumulative real GDP because of increased card usage. This amounts to 0.3% of their GDP per year. They estimate that a future 1% increase in card usage across these countries would produce an annual consumption increase of 0.056% and a GDP increase of 0.032%. Among the major emerging economies, a 1% increase in card usage will increase consumption by 4.89% in China, 1.070% in Russia, 1.147% in Brazil, with India at a lower level of 0.047%.

**Hasan et al. (2013)** analyze retail payments data from all 27 European Union member states over the period 1995–2009. This study also demonstrates the positive relation between migrations from paper to electronic retail payments to the real economy. They estimate that if the card penetration ratio increases by 1.2% in the EU, then GDP would increase by 0.07% or about 6 million Euros.

### **III. DIGITAL PAYMENT METHODS**

As part of promoting cashless transactions and converting India into less-cash society, various modes of digital payments are available.

**1. Banking cards (debit / credit / cash / travel / others)** - Banking cards offer consumers more security, convenience, and control than any other payment method. The wide varieties of cards available are - credit, debit and prepaid – offers enormous flexibility, as well. These cards provide 2 factor authentications for secure payments e.g secure PIN and OTP. RuPay, Visa, MasterCard are some of the example of card payment systems. Payment cards give people the power to purchase items in stores, on the Internet, through mail-order catalogues and over the telephone. They save both customers and merchants' time and money, and thus enable them for ease of transaction.

**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 (BC)/Bank Mitra of any bank using the Aadhaar authentication.

**3. Unified Payments Interface (UPI)**- Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the “Peer to Peer” collect request which can be scheduled and paid as per requirement and convenience. Each Bank provides its own UPI App for Android, Windows and iOS mobile platform(s).

**4. Mobile Wallet** - A mobile wallet is a way to carry cash in digital format. You can link your credit card or debit card information in mobile device to mobile wallet application or you can transfer money online to mobile wallet. Instead of using your physical plastic card to make purchases, you can pay with your smart phone, tablet, or smart watch. An individual's account is required to be linked to the digital wallet to load money in it. Most banks have

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their e-wallets and some private companies. e.g. Paytm, Freecharge, Mobikwik, Oxigen, mRuppee, Airtel Money, Jio Money, SBI Buddy, itz Cash, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, SpeedPay.

**5. Unstructured Supplementary Service Data (USSD)** - The innovative payment service \*99# works on Unstructured Supplementary Service Data (USSD) channel. This service allows mobile banking transactions using basic feature mobile phone, there is no need to have mobile internet data facility for using USSD based mobile banking. It is envisioned to provide financial deepening and inclusion of under banked society in the mainstream banking services. \*99# service has been launched to take the banking services to every common man across the country. Banking customers can avail this service by dialing \*99#, a "Common number across all Telecom Service Providers (TSPs)" on their mobile phone and transact through an interactive menu displayed on the mobile screen. Key services offered under \*99# service include, interbank account to account fund transfer, balance enquiry, mini statement besides host of other services. \*99# service is currently offered by 51 leading banks & all GSM service providers and can be accessed in 12 different languages including Hindi & English as on 30.11.2016.

**6. Point of Sale** - A point of sale (PoS) is the place where sales are made. On a macro level, PoS may be a mall, a market or a city. On a micro level, retailers consider a PoS to be the area where a customer completes a transaction, such as a checkout counter. It is also known as a point of purchase.

**7. Internet Banking**- Internet banking, also known as online banking, e-banking or virtual banking, 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. The different types of online financial transactions under internet banking are-

- **National Electronic Fund Transfer (NEFT)** - National Electronic Funds Transfer (NEFT) is a nation-wide payment system facilitating one-to-one funds transfer. Under this Scheme, individuals, firms and corporates can electronically transfer funds from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country participating in the Scheme. However, such cash remittances will be restricted to a maximum of Rs.50, 000/- per transaction. NEFT, thus, facilitates originators or remitters to initiate funds transfer transactions even without having a bank account. Presently, NEFT operates in hourly batches - there are twelve settlements from 8 am to 7 pm on week days (Monday through Friday) and six settlements from 8 am to 1 pm on Saturdays.

- **Real Time Gross Settlement (RTGS)** - RTGS is defined as the continuous (real-time) settlement of funds transfers individually on an order by order basis (without netting). 'Real Time' means the processing of instructions at the time they are received rather than at some later time; 'Gross Settlement' means the settlement of funds transfer instructions occurs individually (on an instruction by instruction basis). Considering that the funds settlement takes place in the books of the Reserve Bank of India, the payments are final and irrevocable. The RTGS system is primarily meant for large value transactions. The minimum amount to be remitted through RTGS is 2 lakh. There is no upper ceiling for RTGS transactions. The RTGS service for customer's transactions is available to banks from

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9.00 hours to 16.30 hours on week days and from 9.00 hours to 14:00 hours on Saturdays for settlement at the RBI end. However, the timings that the banks follow may vary depending on the customer timings of the bank branches.

- **Electronic Clearing System (ECS)** - ECS is an alternative method for effecting payment transactions in respect of the utility-bill-payments such as telephone bills, electricity bills, insurance premium, card payments and loan repayments, etc., which would obviate the need for issuing and handling paper instruments and thereby facilitate improved customer service by banks / companies / corporations / government departments, etc., collecting / receiving the payments.
- **Immediate Payment Service (IMPS)** - IMPS offer an instant, 24X7, interbank electronic fund transfer service through mobile phones. IMPS is an emphatic tool to transfer money instantly within banks across India through mobile, internet and ATM which is not only safe but also economical both in financial and nonfinancial perspectives.

**8. 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 remotely 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 Bank provides its own mobile banking App for Android, Windows and iOS mobile platform(s).

### VI. ADVANTAGES OF CASHLESS ECONOMY

The whole country is witnessing the effects of demonetization and with our Prime Minister hinting at a cashless economy, many people are left in confusion. How would a cashless economy be beneficial is the question of many. The cashless transfer is soon becoming the most preferred option and there are a number of benefits of going cashless. The digital or electronic transaction of the capital by using net banking, credit cards etc. is called cashless transfer. People can easily pay their bills online, shop and schedule transactions and manage all the finances using their laptops or smart phones. The benefits of going cashless are as under:-

- **More Spending Helps Improved Economic Growth:** When a nation is taking a step towards a cashless economy, a boost in the economic growth can be expected. In countries like US higher card usage has contributed a consumption of about US\$296 billion globally from the year 2011 to 2015 which is a 0.1 % increase in the GDP. Shopping online gets easy as one can use a number of payment options; from credit and debit cards to net banking. One can observe more spontaneous buying while making cashless payments. Countries like Singapore have also witnessed a growth of 0.1 % in GDP which accounts to about S\$400 million per annum. As people spend more, companies need extra staff to handle the demand for goods and services and this, in turn, creates more jobs for unemployed.
- **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 are more tax payers it ultimately leads to a lesser rate of taxation for the whole country.

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- **Transparency and accountability:** it becomes a lot easier to track the flow of money with every transaction being recorded with the buyer, seller as well as regulatory bodies, making the system much more transparent and compliant. In the long term it leads to better business and investment prospects for the economy as a whole.
- **Less availability of cash for illegal activities:** when people are encouraged to go cashless, there is lesser cash available with the people and there won't be a means to invest in other activities to use the idle cash. Channels like hawala (illegal remittance) will ultimately suffer the brunt of a cashless economy.
- **The exact amount in small denominations can be paid.** Unlike cash transactions, there is no need to pay fringe amount in case the exact amount is not available with either of the parties.
- **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 improves service time.

### VII. BARRIERS IN GOING CASHLESS

- **High Cash Dependency:** India has a high cash penetration in almost all of its transactions that happen as B2C transactions. Total cash flow in the market accounts for 12.04% of the GDP, which is among the highest in developing countries. This goes to show our dependence on cash is acute and it requires time to tackle it.
- **Lack of Digital Infrastructure:** The first and foremost requirement of a digital economy is through the help of internet and smart phone. Only 30% of subscribers use smart phones. With 370 million mobile internet users, over 70% of them are in cities while 70% of Indian population lives in villages.
- **Uncertainty in Merchants:** Small time merchants as well as users have high amount of suspicion over plastic money and they need to be educated over the potential benefits of using it. Government needs to come out with awareness and incentive schemes to promote digital economy.
- **High Merchant Discount Rate:** These are the percentage deducted from each purchase a merchant makes by the card issuing authority or bank. For smaller merchants, it does not provide enough incentive to make the shift from cash.
- **Resistance to change:** Major part of Indian population is not educated about banking systems, specifically about the digital aspect of it. Hence they may resist making online transactions.
- **Increased expenditure:** India is dominated by small retailers and they don't have enough resources to invest in electronic payments.
- **Online Fraud:** Cashless economy may increase in cyber crimes and online banking frauds. Therefore merchants and common public would not prefer to do any kind of online transaction and rather would prefer the old traditional techniques of carrying on transaction.

### VIII. FUTURE OF CASHLESS TRANSACTIONS

**RTGS transactions rose 70% over five years; NEFT rose five times:-** Bank transfers made through the National Electronics Funds Transfer (NEFT) system rose five times in number (4.5 times in value), while transfers using the

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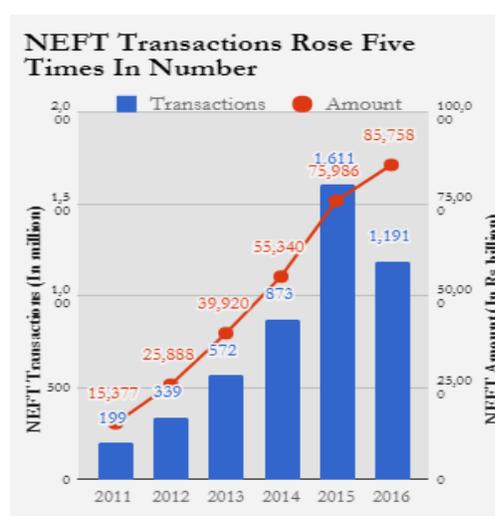
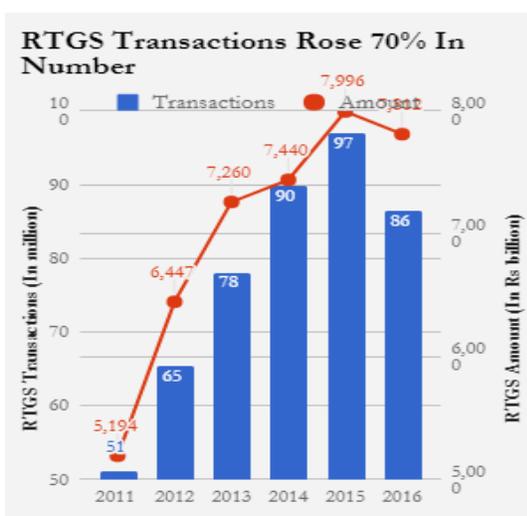
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Real Time Gross Settlement (RTGS) system rose 70% in number (50% in value) over five years ending 2016, according to October 2016 Reserve Bank of India (RBI) data. RTGS, which requires a minimum of Rs 2 lakh, allows transfers in “real time”, or immediately, while NEFT, which has no minimum, can be done during fixed times. NEFT recorded 1.19 billion transactions in October 2016, compared to 199 million in 2011; RTGS transactions rose from 511 million to 864 million over the same period.



Source: - Reserve Bank of India

### IX. POINT OF SALES TERMINALS AND ATM TRANSACTIONS:-

There were 1.4 million POS terminals—the machines used to swipe debit and credit cards—and 200,000 ATMs in October 2016, according to RBI data, a doubling of numbers over five years. The State Bank of India (SBI) has opened more than 26,000 ATMs over the last four years, according to RBI data, higher than the next four banks (HDFC, ICICI, Axis and Kotak) put together. SBI, India’s largest bank, has also deployed more PoS terminals than any other bank. The government has announced plans to add an additional 1 million PoS terminals.

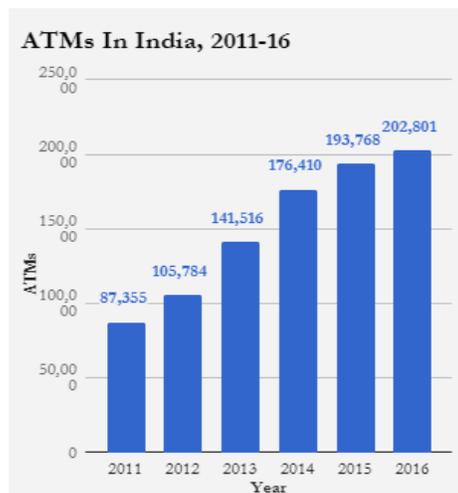
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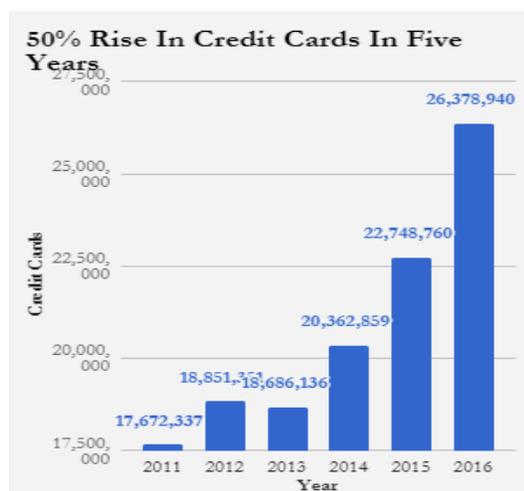
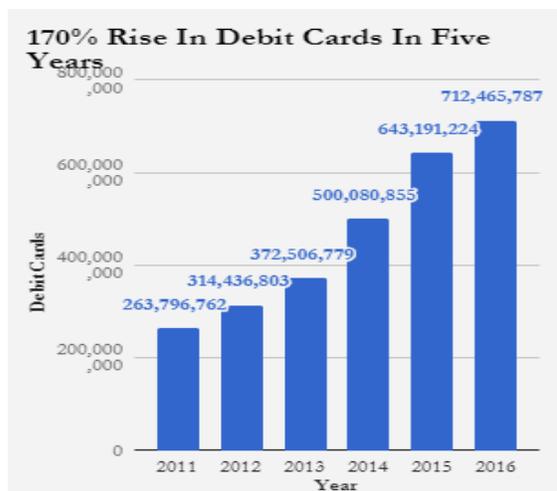
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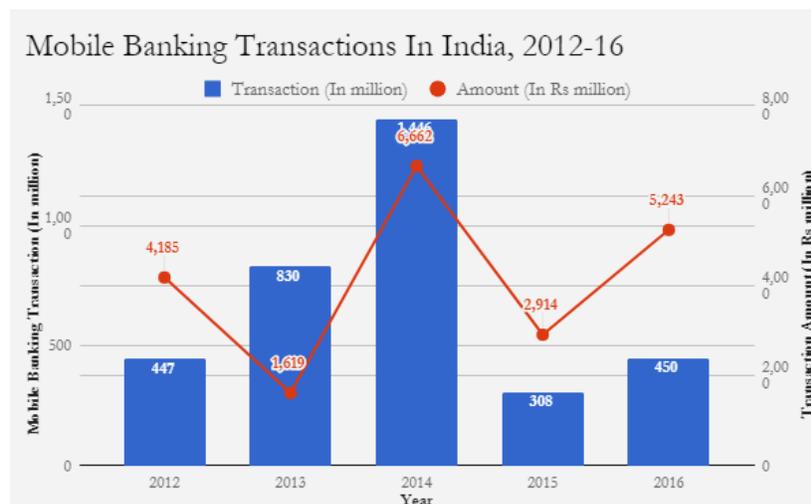
Source; - Reserve Bank of India

**Debit cards rise 170% over 5 years; credit cards rise 50%:** Credit cards increased from 17.7 million in 2011 to 26.4 million in August 2016, according to RBI data. Debit cards rose from 263 million to 712 million over the same period.



Source; - Reserve Bank of India

**Mobile-phone banking transactions tripled, 25% by value, 2012-16:** Although there were yearly fluctuations, transactions conducted over mobile phones—there are about 600 million active mobile phones—rose from Rs 4,185 billion in 2012 to Rs 5,243 billion in October 2016. While mobile banking transactions rose 2.2 times between 2012 and 2016—from 446 million to 1.4 billion—they dipped for two consecutive years: By 308 million transactions in 2015 and 449 million transactions in 2016 (up to October).



Source: - Reserve Bank of India

The move to electronic banking—through debit and credit cards, bank transfers, Internet and mobile banking—will indeed accelerate. While the use of cash for retail transactions was 95%, according to 2013 report from McKinsey, a consultancy, it was 68% in 2016, the Business Standard reported, quoting CLSA, a brokerage group.

## X. CONCLUSION

Cashless payments are helping overcome the severe liquidity crunch that the Indian economy is facing post demonetization. While cash remains the most preferred choice, there has been a big build-up in the digital payments infrastructure. The next level of growth will come when local kirana grocery stores start accepting digital payments. The government's initiatives over the past one year or so have been focused on promoting e-payments, plastic transactions, and cashless payments. It is truly indeed, the future for the Indian economy. With all the benefits and drawbacks, India needs to keep moving to achieve the target of being cashless.

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