Cashless India: A boon or a bane

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Abstract
A cashless society describes an economic state whereby financial transactions are not conducted with money in the form of physical bank notes or coins, but rather through the transfer funds and digital information between the transacting parties using electronic representation of money which we term as digital money.

Cashless societies have existed, based on barter and other methods of exchange, and cashless transactions have also become possible using digital currencies such as bit coin. A cashless economy is one in which all transactions are made using credit/debit cards or digital devices where the circulation of liquid money or paper currency is minimal. In this economy, a third-party such as the government or a public/private sector bank possesses an individual’s money and can circulate that money whenever it is not needed by the individual.

Keywords: Cashless India, financial transactions, Cashless Economy

1. Introduction
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 India’s movement to a cashless economy. Among them are a ban 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.
Aadhaar Pay, a merchant version of Aadhaar-Enabled Payment System (AEPS), will be launched soon to enable those who do not have debit cards, mobile wallets and mobile phones to make digital payments.

Objective
1. To understand the need for digital payments
2. To highlight the initiative taken by the Indian Government for Digital India
3. To understand the challenges faced by the common public in going cashless.
4. To understand the opportunities in long run with digitalization.

Methodology
The study tries to reason out the various opportunities and challenges with digitalization of transactions or going cashless. The data collected is based on secondary sources from various articles and websites.

About the cashless India initiative
Digital India is the flagship programme of the Government of India. It was launched on 1st July 2015 by Prime Minister Sri Narendra Modi, with a vision to transform India into a digitally empowered society and knowledge economy. “Faceless, Paperless, Cashless” is one of the professed roles of Digital India. Major progress towards this goal was made in late 2016, when the government took steps to demonetize the country. Now, even small retailers and shop owners are using cashless models like PayTM for transactions.

Cashless India
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 bought both customers and merchants a lot closer by trusting a payment bank with the help of mobile interface.

India’s dependency on cash
Indian economy is primarily to be driven by the use of cash and less than 5% of all payments happen electronically. Even those who can use electronic payments, use cash. This is largely due to the lack of access to the formal banking system for a large part of the population and as well as cash being the only means available for many. Large and small transactions continue to be carried out via cash. Indians traditionally prefer to spend and save in cash.

Indian economy is primarily driven by the informal sector and it relies heavily on cash based transactions. A report by Google India and Boston Consulting Group showed that IN 2015 around 75% of transactions in India were cash-based while in developed countries like USA, Japan, France, Germany etc. it was just around 20-25%. RBI states that by July 2016 banks had issued around 697.2 million debit cards and 25.9 million credit cards to customers after deducting withdrawn or cancelled cards.

However, issue of cards cannot turn the economy into a cashless one. The number of cards in operation is not equal to the number of individuals holding those cards. It majorly means that many customers hold multiple accounts and cards. Survey says that over 85% (Volume) and 95% (value) of all debit cards are used in ATM’S for the purpose of withdrawing cash. Therefore the main objective to hold a debit card in India is to withdraw cash through ATM’S.

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. Micro ATM’S

Micro ATM meant to be a device that is used by a million Business Correspondents (BC) to deliver basic banking services. The platform will enable Business Correspondents (who could be a local kirana shop owner and will act as ‘micro ATM’) to conduct instant transactions. The micro platform will enable function through low cost devices (micro ATMs) that will be connected to banks across the country. This would enable a person to instantly deposit or withdraw funds regardless of the bank associated with a particular BC. This device will be based on a mobile phone connection and would be made available at every BC. Customers would just have to get their identity authenticated and withdraw or put money into their bank accounts. This money will come from the cash drawer of the BC. Essentially, BCs will act as bank for the customers and all they need to do is verify the authenticity of customer using customers’ UID. The basic transaction types, to be supported by micro ATM, are Deposit, Withdrawal, Fund transfer and Balance enquiry.

5. Mobile wallets

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 smartphone, 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 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.

6. 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 underbanked 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 dialling *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

7. Point of sale

A point of sale (PoS) is the place where sales are made. On a macro level, a 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.

8. 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.

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 the same day. '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 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 premia, 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 offers 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 non-financial perspectives.

9. 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).

**Government initiative to promote cashless society**

With an aim to promote Digital Payments and converting India to a less-cash society, a large number of policy and implementation initiatives are being taken by the Government.

**Bharat Interface for Money (BHIM)**

Bharat Interface for Money (BHIM) provides fast, secure, reliable medium to make digital payments through your mobile phone using UPI (Unified Payment Interface) platform via Mobile App and USSD (Unstructured Supplementary Service Data) platform via *99# service. BHIM was launched by Hon’ble Prime Minister on 30th Dec 2016 and within 10 days, the BHIM app had 1 crore downloads from Andriod Play Store and over 2 million transactions across the UPI (Unified Payment Interface) and USSD (Unstructured Supplementary Service Data) platforms. BHIM is interoperable with other Unified Payment Interface (UPI) applications, and bank accounts. BHIM is developed by the National Payment Corporation of India (NPCI), a not-for-profit company for providing retail payment systems in the country under guidance from Reserve Bank of India.

BHIM has been designed for quick and secure user on-boarding, sports a best-in-class and intuitive user interface and makes digital transactions seamless. BHIM has been a huge boon for merchants who can now accept payments directly into their bank accounts. All users, including merchants, get a ready to use VPA (virtual payment address) and an exclusive, ready-to-print QR code upon sign-up

**Benefits of BHIM**

1. One digital payment app for all bank accounts.
2. Money remains in your bank account, so you earn interest.
3. No charges from using BHIM app infra, minimal UPI charges from banks for making transactions.
4. Simple, secure and light.
5. BHIM framework *99# works without internet.
6. Transaction from 1/- to 10,000/-
7. Daily transaction limit of 20,000/-(government)

**Merits and drawbacks of cashless economy**

Cashless economy comes with its own merits and drawbacks from both the governments view point as well as general public’s point of view.

**Merits of Cashless Economy.**

1. **Maintenance cost is reduced:** The amount of money required in printing cash, its storage, transportation, distribution and detecting counterfeit currency is huge.
2. **Transparency:** Electronic transactions or plastic money always leaves a digital proof beneficial for both the taxpayer (consumer) and the tax collector (government).
3. **Increase in Revenue:** Transparency in cash transaction will lead to increase in tax collection. This generates higher revenue for the government, which in turn will be converted into public welfare policies and schemes.
4. **Financial Inclusion:** Cashless economy will promote financial inclusion of the people. It will compel the government to connect all the households with a bank and plastic economy.
5. **Reduced Transaction Costs:** Digital transaction is a boon in terms of processing costs and waiting time. If implemented properly, it will increase the consumption and production rates, thereby improving the economy.
6. **Reduces terrorist activities:** as most of the terrorist activities are fueled by the black money in hard cash, digital transaction would reduce terrorist activities.
7. **Environmental protection:** This aids the environment, as no trees are cut for printing of paper money.
8. **Reduction in crime rate:** Crimes with financial motives are rare in cashless economy. An instance of this has been seen in Delhi recently when the government pulled out high value notes.
9. **Remedy for Fake money:** It is the medicine for fake money problem. No cash simply means no fake cash

**Demerits of Cashless Economy**

1. **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.
2. **Lack of Digital Infrastructure:** The first and foremost requirement of a digital economy is through the help of internet and smartphone. 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.
3. **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.
4. **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.
5. **Dependency on connectivity:** No cash in hand. Always a dependency on your card or bank system connectivity.
6. **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 to make online transactions.
7. **Increased expenditure:** India is dominated by small retailers and they don’t have enough resources to invest in electronic payments.
8. **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.
9. **Reduction in jobs**: Automation and online transactions will cut down large number of jobs.

### KEY BARRIERS TO DIGITAL PAYMENTS

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<thead>
<tr>
<th>Barrier</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Habit to use cash</td>
<td>68%</td>
</tr>
<tr>
<td>Complexity of using</td>
<td>55%</td>
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<tr>
<td>Lack of compelling value proposition</td>
<td>48%</td>
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<tr>
<td>Incentives/offers from other methods</td>
<td>33%</td>
</tr>
<tr>
<td>Fraud/hidden charges</td>
<td>29%</td>
</tr>
<tr>
<td>Reach</td>
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**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.

**Reference**

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