

## India's march towards faceless, paperless, cashless economy

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### Abstract

The Digital India programme is a leading programme of the Government of India with a vision to convert India into a digitally authorized society and knowledge economy. "Faceless, Paperless, Cashless" is one of declared role of Digital India. Cashless economies, as the name suggests, are those that run frequently on plastic or digital money and thus with insignificant cash or money in paper form. This is probable in mostly those countries where there is better financial knowledge and citizens are conscious of the welfares of going cashless. A very important influence in the running of such an economy is the self-confidence that the people's money is safe in banks. Also, going cashless is much more suitable. But, it is not just the coolest way to manage, but also brings about a lot more clearness in the financial system, which helps in limitation black money, depresses tax avoidance and finally leads to smaller funding for prohibited trades and actions counting terrorism.

Thus because of the increasing effect of the profits, many developing economies are accepting the cashless method and are going digital. This is an enormous task and requires the infrastructure to be healthy and have a reach in the complete consumer base as well as the traders and businessmen. It is up to the governing forms of the nations to deliver a push to banks and telecom companies to progress the mobile and net banking ecosystem so as to afford a continuous end to end answer to customers as well as brokers.

**Keywords:** digital India, government of India, faceless, paperless, cashless

### 1. Introduction

India is an enthusiastic effort to move towards a cashless transaction economy by minimizing the use of corporal cash. The leading benefit of building a cashless economy is removal of black money. Digitalization of dealings is the best way to move towards cashless economy. Such a cashless economy is achievable by encouraging electronic money tools, developing financial infrastructure and distribution digital deal habits among people. India – traditionally cash founded economy – recently broadcast the biggest and most determined move to crack down black money and move towards digitization and cashless economy. While cards expenses have resisted to scale up due to numerous reasons, can mobile based payment technologies such as mobile wallet cover the future for cashless economy in India?

India remains to be driven by the use of cash; less than 5% of all payments happen automatically however the finance minister, in 2016 budget speech, talked about the idea of making India a cashless society, with the aim of restriction the flow of black money.

Even the RBI has also recently revealed a document — "Payments and Settlement Schemes in India: Vision 2018" — setting out a plan to inspire electronic payments and to permit India to move to a cashless society or economy in the medium and long term.

### 2. Objective of study

In this article we will explain what Cashless economy is, what are the major advantages of cashless economy and what challenges India will face in moving towards a cashless economy.

What is a cashless economy?

Benefits of Cashless economy

Challenges in making India a cashless economy

Steps taken by RBI and Government to discourage use of cash  
 What else needs to be done?

### 3. Research methodology

The present study is based on secondary study. The data was collected through Journals, books, magazines and internet, Newspaper etc.

### 4. Literature Review

Digital India is the leading programme of the Government of India. It was propelled on 1st July 2015 by Prime Minister Narendra Modi, with a vision to convert India into a digitally permitted society and knowledge economy. "Faceless, Paperless, Cashless" is one of the declared roles of Digital India. Major improvement towards this objective 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 dealings.

A cashless economy is one in which all connections are made using credit/debit cards or digital strategies (e.g., point-of-sales machines, digital wallets, etc.), and the movement of liquid money or paper currency is negligible. In this economy, a third-party such as the government or a public/private sector bank retains an individual's money and can socialize that money whenever it is not needed by the separately.

### 5. What is a Cashless Economy?

Cashless Economy can be well-defined as a ailment in which the flow of cash within an economy is non-existent and all dealings must be through electronic frequencies such as direct debit, credit cards, debit cards, electronic clearing, and payment systems such as Instantaneous Payment Service (IMPS), National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS) in India. Cashless economies,

as the name proposes, are those that run mostly on plastic or digital money and thus with negligible cash or money in paper form. This is conceivable in mostly those countries where there is better financial knowledge and citizens are conscious of the reimbursements of going cashless. A very important factor in the running of such an economy is the assurance that the people’s money is safe in banks. Also, going cashless is much more appropriate. But, it is not just the easiest way to manage, but also brings about a lot more photograph in the financial system, which helps in restriction black money, depresses tax fudging and eventually leads to reduced funding for illegal trades and activities counting terrorism. Thus because of the growing effect of the benefits, many developing economies are accepting the cashless method and are going digital. This is a mammoth task and requires the infrastructure to be healthy and have a reach in the whole consumer dishonorable as well as the dealers and businessmen. It is up to the governing bodies of the countries to deliver a push to banks and telecom companies to recover the mobile and net banking ecosystem so as to provide a whole end to end explanation to customers as well as traders.

## 6. Types of Cashless Modes and Payments

### 6.1 Mobile wallet

It is essentially a virtual wallet obtainable on your mobile phone. You can store cash in your mobile to make online or offline payments. Countless service benefactors offer these wallets via mobile apps, which is to be transferred on the phone. You can transmission the money into these wallets online using credit/debit card or Net banking. This means that every time you pay a bill or make an acquisition online via the wallet, you won’t have to furnish your card details. You can use these to pay bills and make online purchases.

### 6.2 Plastic money

It includes credit, debit and prepaid cards. The concluding can be issued by banks or non-banks and it can be corporeal or cybernetic. These can be bought and recharged online via Net banking and can be used to make online or point-of-sale (PoS) purchases, even given as gift cards. Cards are used for three primary purposes – for withdrawing money from ATMs, making online payments and stealing for purchases or payments at PoS terminals at merchant outlets like shops, restaurants, fuel pumps etc. Net banking: It does not involve any wallet and is simply a method of online transfer of funds from one bank account to another bank account, credit card, or a third party. You can do it finished a computer or mobile phone. Log in to your bank account on the internet and transmission money via national electronic funds transfer

(NEFT), real-time gross settlement (RTGS) or immediate payment service (IMPS), all of which come at a nominal transaction cost.

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

1. **Open Wallets:** These permit you to buy goods and services, withdraw cash at ATMs or banks and transfer funds. These amenities can only be jointly hurred in suggestion with a bank. Apart from the usual merchant payments, it also allows you to send money to any mobile number linked with a bank account. M-Pesa by Vodafone is an example.
2. **Semi-Open Wallets:** You cannot remove cash or get it back from these wallets. In this case, a customer has to apply what he loads. For example, Airtel Money/Ola Money is a semi-open wallet, which allows you to transact with merchants having a contract with Airtel/Ola.
3. **Closed Wallets:** This is moderately popular with e-commerce companies; where in a positive amount of money is sealed with the merchant in case of a withdrawal or return of the product, or gift cards. Flipkart and Book My Show wallets are an example.
4. **Semi-Closed Wallets:** These wallets do not authorization cash withdrawals or renovation, but it allows you to buy goods and services from listed wholesalers and perform financial services at listed locations. Paytm is an example.

## 7. What is a cashless economy and where does India stand

- A cashless economy is one in which all the transactions are done using cards or digital means. The circulation of physical currency is minimal.
- India uses too much cash for transactions. The ratio of cash to gross domestic product is one of the highest in the world—12.42% in 2014, compared with 9.47% in China or 4% in Brazil.
- Less than 5% of all payments happen electronically
- The number of currency notes in circulation is also far higher than in other large economies. India had 76.47 billion currency notes in circulation in 2012-13 compared with 34.5 billion in the US.
- Some studies show that cash dominates even in malls, which are visited by people who are likely to have credit cards, so it is no surprise that cash dominates in other markets as well.



## 8. Challenges for India in Going Cashless

The current move of demonetization has nervous the grubby cages of cash created economy and involuntary the people to rethink the MO of dealings and trade. The demonetization drive was initially designated as a tool to challenge the problem of black money and fake currency, but since then, the description has clearly shifted base. Now it is a way to endorse cashless dealings among citizens, which is actually 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 opportunity India into a cashless economy by 2020. India has a large volume of black money. Conferring to recent evaluations around 1/4th of Indian GDP is the shadow economy of India, which is like a parallel dimension slowly slurping out energy and matter from our measurement (economic ecosystem). Though, one thing wants to be made strong that of all the black money in India only 10% of it is in hoarded cash and the rest is in fluctuating in the market or is in form of gold, stocks or real estate. The achievement or failure of demonetization as a incomes to curb black money and fake currency can only be resolute after a couple of months but the fact that digital economy is good for the country, is crushingly accepted as true. What you need to distinguish is, how it can be helpful for our country and what are the contests in front of India in going cashless.

## 9. Benefits of Cashless Economy

- **Reduced Maintenance Costs:** The logistics and supply chain of cash is estimate the exchequer affluence. The amount of money mandatory in printing cash, its storage, conveyance, distribution and perceiving imitation currency is huge. Concentrated instances of tax escaping because it is financial institutions based economy where business imprints are left.
- **Transparency in Transactions:** Needless to say, electronic dealings or plastic money always leaves a digital impermeable valuable for both the taxpayer (consumer) and the tax collector (government). It will curb generation of black money
- **Higher Revenue:** A unoriginal advantage of transparent transactions is collection of tax will increase. Thus producing higher income for the government, this in turn will be changed into public welfare policies and schemes.
- **Financial Inclusion:** The will to have a cashless economy will promote financial attachment of the people. It will require the government to connect all the households with a bank and plastic economy.
- **Lower Transaction Costs:** Digital business is a boon in terms of handling costs and waiting time. If fulfilled appropriately, it will increase the feasting and production rates, thereby cultivating the economy.
- **Hygiene – Soiled, tobacco stained notes full of germs are a average in India.** There are many such happenings in our life where we significantly or innocently give and take germs in the form of rupee notes. This could be circumvented if we move towards Cashless economy.
- **In a cashless economy there will be no delinquent of soiled notes or fake currency reduced costs of functioning ATMs.** Speed and consummation of operations for customers, no delays and columns, no connections with bank staff mandatory.
- **A Moody's report attached the impact of electronic**

transactions to 0.8% increase in GDP for emerging markets and 0.3% increase for developed markets because of increased rapidity of money

- There will be greater competence in welfare programmes as money is supported traditional into the accounts of receivers. Thus once money is transferred directly into a beneficiary's bank account, the entire process becomes see-through. Payments can be easily outlined and composed, and dishonesty will mechanically drop, so people will no longer have to pay to collect what is technically theirs. There will be effectiveness gains as deal costs across the economy ought to also come down.
- An increased use of credit cards in its place of cash would mainly qualify a more detailed record of all the connections which take place in the society, allowing more limpidity in business procedures and money transfers.

## 10. Merits of a Cashless Economy

Some of the merits of a cashless economy are registered below, going through these you will understand how important this initiative is and how it will shape the Indian economy in a positive way.

1. It boosts the economy because the cost of creation and treatment paper money is quite high.
2. It decreases the terrorist happenings, as most of the extremist activities are fueled by the black money in hard cash.
3. This aids the situation, as no trees are cut for production of paper money.
4. Reduction in crime rates. Crimes with monetary motives are intermittent in cashless economy. An instance of this has been seen in Delhi freshly when the government pulled out high value notes.
5. It is the remedy for fake money problem. No cash simply means any fake cash.
6. Adherence to labour laws can be achieved, as now labours will be paid in their bank accounts.

## 11. Demerits of a Cashless Economy

Every enterprise has a lop side also; some of the drawbacks of cashless economy with corresponding to India are given below. In the later part of this item we will talk in detail about the challenges correlated to cyber security, individual's financial data, and online banking fraud which a cashless economy can face.

1. No cash in hand. Always a reliance on your card or bank system connectivity.
2. Major part of Indian population is not cultivated about banking systems, specifically about the digital aspect of it. Hence they may resist making online transactions.
3. Automation and online transactions will cut down large number of jobs.
4. India is dominated by small retailers and they don't have enough resources to invest in electronic payments.
5. Intensification in cybercrimes and online banking deceptions

## 12. Challenges Ahead

However, in a country of 1.3 billion people, not all is flawless and not all is rosy. Going cashless must be an exponential bend, slow initial buildup then fast marched in later stages, not a digital step signal. That could be counterintuitive to the whole

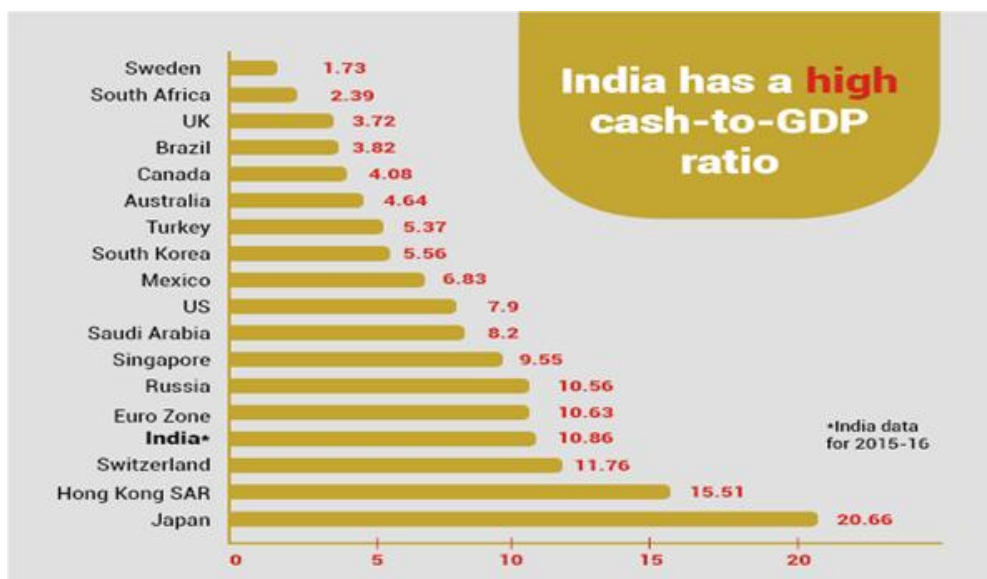
procedure. India is a large country that needs a change that is systemic and methodical. Here is a list of challenges-

1. High Cash Dependency: India has high cash diffusion in almost all of its dealings 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 requirement on cash is severe and it requires time to challenge it.
2. Lack of Digital Infrastructure: The first and primary requirement of a digital economy is the diffusion of internet and smartphone. While a billion mobile payments (not users), only 30% of subscribers use smartphones. With 370 million mobile internet users, over 70% of them are in cities while 70% of Indian population lives in villages.
3. Skepticism in Merchants: Small time wholesalers as well

as users have high quantity of misgiving over plastic money and they need to be cultivated over the possible benefits of using it. One cannot expect an instant change in the awareness of a mainstream of Indians over the use of plastic money. Government desires to come out with awareness and incentive schemes to stimulate digital economy.

4. High Merchant Discount Rate: These are the percentage subtracted from each purchase a commercial makes by the card delivering specialist or bank. These are volume dependent and are more inexpensive if the commercial is able to sell a large amount of products, thereby advantageous for big dealers. For smaller merchants, it does not provide enough encouragement to make the shift from cash.

### 13. India’s Cash to GDP ratio



As calls for going cashless produces showier in India, a key challenge being challenged at the global level is to check the remaining rise in the total value of money in circulation and its share in the overall GDP, a trend particularly seen in the US, Switzerland and Euro area.

Such remaining rise in the movement of exchanges for economic activities could well be a major disablement in the alteration to a cashless and digital economy. India’s cash to GDP ratio — an pointer of the amount of cash being used in the economy — is around 12 to 13%, which is much higher than major economies including the US, the UK and Euro area but below that of Japan (about 18%). Unexpectedly Indonesia, another developing economy, has a much lower ratio of around 5%.

### 14. The four key prerequisites for going cashless have been identified as follows

1. Broad access to financial services. This includes the obtainability and affordability of financial services and crops and whether people use bank accounts and automated payment products. The in-formalization of the Zimbabwean budget and uncertainty of the banking system have worked against this in that a large section of the population does not bank its money. However, due to

cellphone dissemination, which is probable to be in excess of 100 percent, there is wide feast use of cellphone banking, which is an encouraging characteristic. We need to exploit on this and enable cellphones to be used as payment instruments. This is certainly beginning to happen as the uptake of the necessary technology increases.

2. Merchant scale and competition are also key determinants. These designate the potential for uptake of new payment clarifications by large scale wholesalers and also consider the concentration of local struggle. The cost of implementation of cashless systems continues to be quite high (e.g. a POS system costs US\$500) and this has inclined to limit their obtainability. Added to this, is the fact that Zimbabwe still has a few large scale wholesalers who have a monopoly and therefore can control the pace of applying cashless systems without unavoidably losing market share to participants. Remarkably enough, the fluidity crisis has unintentionally forced enhanced acceptance of cashless systems by many shops, large and small, and this can only work to our advantage.
3. Next are macro-economic and cultural factors. Involved are factors that influence on favorite for cash, such as ease of doing business and size of the relaxed economy. Zimbabweans prefer to use cash, this has been the case

since time ancient and we have seen how difficult it is to change that culture over-night. Boundless bank columns remain common as customers queue to get access to as little as US\$50. The large relaxed sector also prefers cash for many reasons and do not pay tax, hence the confrontation of formal cashless systems. The unbalanced macro-economic environment has not heartened the use of cashless systems and keeping money in the bank due to nervousness and suspicion of the banking sector.

4. Lastly, are technology and infrastructure issues, which deliberate access to and uptake of new technologies as well as novelty (including the quality of infrastructure). If we are to accelerate the emergence of a cashless society in Zimbabwe, we have to upgrade our infrastructure and guarantee that all have access to it. Continuous power supply, access to reasonable broad band, new reasonable technologies and gear are some of the subjects which we need to address here. Firstly, the historically tilted development towards urban areas leaves a large number of our population in the rural areas without access to technology and infrastructure. Secondly, the relocation to urban areas has additional put heaviness on urban substructure, while efficiently under developing the rural sector where 70 percent of our population resides. This does not help broad-based comprehensive economic development, financial inclusion and employment. These are some of the opportunities and challenges which we face in going cashless. There is no debate that the advantages far outweigh the disadvantages. As our economy develops there is no doubt that we will become more cashless.

## 15. Conclusion

With the enormous usage of mobile in India, it is convinced that mobile will play a dangerous role in creativities like Cashless India. As such, both private and government banks and monetary institutions will soon offer patrons with mobile explanations for cashless transactions and other financial services. With such a large acceptance of mobile for cashless dealings, there will be an equal increase in safety threats in the mobile space. In this white paper, we have acknowledged some of these sanctuary threats and debated how to moderate them as both consumers and developers of mobile solutions. Additionally, we have explored how mobile app developers can make their clarifications even more protected and ready to face any threats that the mobile cashless operation movement may face in the future. In conclusion, it is serious that key issues of economic renewal, macro-economic stability, increased competition, infrastructure development, reasonable financial services, financial enclosure and changed sureness in our banking sector, service creation and culture change through education have to be addressed before we can see important uptake of cashless systems and the welfares therefrom.

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