

## A Shift in Payment Patterns of Indian Buyers

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### ABSTRACT

The paper envisages studying the shift in payment systems in India as a result of Demonetizations move by Government of India. The study addresses Buyers Benefits of Demonetization and Adverse Effect of Demonetizations in India. The readiness of the Indian buyers to use noncash payment systems is also studied. In this regard the present study is to be examining the pre-demonetization and post-demonetization period. To extract the results, statistical test like Paired t-test have been used with the help of SPSS software. The results indicate that demonetization has momentous impact on non-cash payment methods.

**Key Words:** Demonetizations, E-Payment.

### INTRODUCTION

“Demonetization” means the act of removing the old unit of Currency with a new currency unit. Demonetization is necessary whenever there is change of a national currency is required for the benefit of nation. Demonetization is not latest to Indian Economy., according to RBI data demonetization in the past did not have a big collision on the Indian Economy as less than 5% of population in India had admittance to such notes and most banks never had such currency notes. On 8<sup>th</sup> November 2016, the Indian Government decided to demonetize the 500- and 1000-rupee notes, the two major denomination notes. These notes accounted for almost 86% of the India’s cash supply. It has

resulted in a significant decrease in liquidity in the short-term, which is expected to ease gradually with the introduction and circulation of the new currency notes.

### Literature Review

Author and year of study	Brief description and finding
<b>Russo, F.F., (2017)</b>	Using a dataset that matches information on VAT evasion with the ECB Payment Statistics, the study showed that the direct use of debit and credit cards for payments reduces VAT tax evasion. The study also found evidence of a positive statistical relationship between cash withdrawals and tax evasion. Comparing these results, the study concluded that cashless payment hinders tax evasion.
<b>Johnson, et al. (2017)</b>	The study is based on diffusion of innovation theory to investigate the impact of factors influencing m-payment service adoption. The study explained the impact of perceived ubiquity, security, and privacy risk. The study demonstrates that security and privacy risk continues to be important issues for consumers.
<b>Koening.Lewis. (2015)</b>	The study incorporated perceived enjoyment, social influence, knowledge, and perceived risk in the framework of understanding mobile payment adoption. The study found that social influence reduces perceived risk. Perceived enjoyment lowers perceived risk.
<b>Arvidsson, N. (2014)</b>	The study builds on quantitative data from a proof of concept test of a mobile service that was done in Sweden in 2011. The study finds that the most important factor explaining whether consumers are likely to use a mobile payment service is ease of use. In addition, relative advantage, high trust, low perceived security risk, higher age, and lower income were associated

	with a positive view on adopting the service.
<b>Olivera, Baptista &amp; Thomas (2016)</b>	Combined the <b>Diffusion of Innovation theory</b> and the <b>Unified theory of Acceptance and Use of Technology</b> in a model and found that social influence may play a role in the intention to adopt m-payment usage, which is consistent with previous studies indicating that social environment influences users' opinions.

With the help of the literature review we found the following constructs that have been used to study consumer adoption of non-cash payment methods:

- Cost (-)
- Convenience
- Compatibility
- Ease of use
- Mobility
- Privacy
- Risk (-)
- Security
- Social influence
- Speed of transaction

- Technology anxiety
  
- Trust
  
- Usefulness.

Very few studies have been found to have assessed the Merchant's willingness. In the context of India, which is a developing country having a huge potential of digitalization and use non-conventional payment systems, the study envisages to see the impact of the various factors combined with role of the Government on mobile payment usage. For this Government intervention has been added as another factor.

The research problem identified and discussed were:

Is there any shift in the Payment Methods of customers and people in general Post-Demonetization drive?

- To Eliminate Black Money.
- To Fight Tax Evasion.
- To discourage Cash System in the Indian Economy.

### **Research Objectives**

1. To infer from the RBI statistics on payment methods, the rate of growth in non-traditional payment methods.
2. To study if the shift (post-demonetization) to the non-cash payment here to stay?
3. To study the impact of various factors relating to use of m-payment on the use or no-use of it.
4. To gauge the perception of the customers and people in general about cash transactions and disadvantages associated with it.
5. To infer from the data, the readiness of the educated and urban population to accept the new techniques of payments, like e-payment or m-payment in comparison with less educated/uneducated rural population in unorganised sector.
6. To study the role of Government in making people shift towards non-cash payments.

This paper has been investigating two pre- demonetization and after demonetization for increasing the payment pattern (cash less economy). It is virtually unfeasible to have a 100% cashless economy. Conversely the proportion of hard cash in the economy will decrease and Indian economy will get more digitized. Alternative payment methods, such as e-wallets , online transactions using e-banking , debit and credit card usage will increase extensively. This will increase usage of such payment system and facilitate a shift towards an efficient cashless Indian economy.

### **Background of Study**

Reducing Indian economy's dependence on cash is desirable for a variety of reasons. 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 Rs21,000 crore annually. Also, 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.

The government on its part is working at various levels to reduce the dependence on cash. Opening bank accounts for the unbanked under the and adoption of direct benefit transfer is part of the overall idea to reduce usage of cash and increase transparency.

RBI has also issued licenses to open new-age small finance banks and payments banks which are expected to give a push to financial inclusion and bring innovative banking solutions. Things are also falling in place in terms of technology for India. The recently launched Unified Payments Interface by National Payments Corporation Of India makes digital transactions as simple as sending a text message.

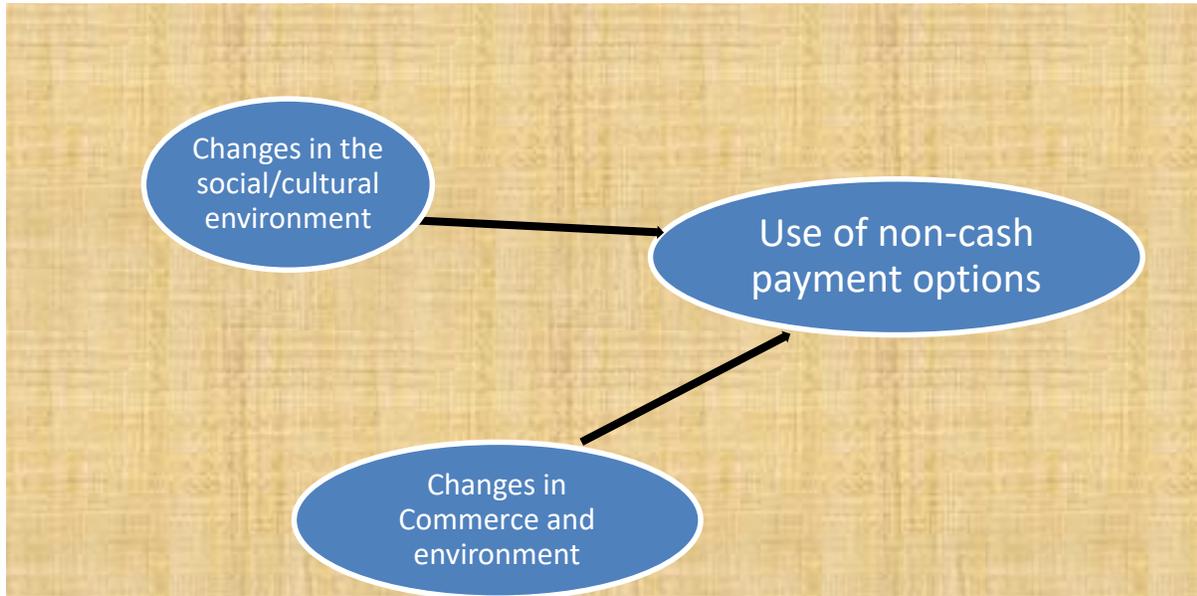
Demonetisation in India has been termed by a few Business Leaders in India as “a defining point in India moving to cashless”. Shortage of cash has significantly increased the use of digital modes of payment, but the actual shift will only be visible after the cash crunch eases. It is possible that a section of people which has used electronic mode of payment for the first time due to the cash crunch will continue to transact through this medium.

First, a large part of the population is still outside the banking net and not in a position to reduce its dependence on cash. According to a 2015 report by PricewaterhouseCoopers, India's unbanked population was at 233 million. Even for people with access to banking, the ability to use their debit or credit card is limited because there are only about 1.46 million points of sale which accept payments through cards.

Second, about 90% of the workforce, which produces nearly half of the output in the country, works in the unorganized sector. It will not be easy for the informal sector to become cashless, and this part of the economy is likely to be affected the most because of the ongoing currency swap. Third, there is a general preference for cash transactions in India. Merchants prefer not to keep records in order to avoid paying taxes and buyers find cash payments more convenient. Although cashless transactions have gone up in recent times, a meaningful transition will depend on a number of things such as awareness, technological developments and government intervention.

A material transition to a cashless economy will depend on a number of factors. First, the **availability and quality of telecom network** will play an important role. Second, the **government** will also need to play its part. It will have to find ways to incentivize cashless transactions and discourage cash payments. Implementation of the goods and services tax, for example, should encourage businesses to go cashless. Government should also use this opportunity to revamp the tax administration, as there are still some payments under the Income Tax Act, which are not necessarily required to be paid using Banking. Such payments can also be brought within the ambit of banking, such as Life Insurance Premium and other payments for deduction u/s 80C, and also the threshold of disallowance of payment over 10,000 u/s 40(A)(3) of the Income Tax Act, 1961 can further be brought down to 5,000 or even Nil.

### Proposed Model of the Study



### Research Methodology

This paper is based on secondary data. Data has been collected from RBI Reports, Internet and Newspaper. SPSS Paired t test is used to analyse the data. Pair t test is using in this research to test for comparing two related samples, involving small values of n that does not require the variance of the two population to be equal , but the assumption in the two population are normal have to continue to apply. For a paired t-test, it is essential that the observations in the two samples must be collected in the form of called matched pairs like each observations in the one sample must be paired with an observation in the other sample in such a manner that these observations are somehow matched or related, in an attempt to eliminate extraneous factors which are not of interest in test. Such a test is generally considered appropriate in a before and after treatment study. For a research purpose test a group of before demonetization and after demonetization in order to know whether (cash less )e payment is effective, in which situation may use paired t-test. To apply this test Pre-Demonetization value of E-payment in value (Lakh)

And After Demonetization value of E- Payment in value (Lakh) study.

**Ho Null Hypothesis:** There is no Significant difference between Pre- Demonetization After

Demonetization of E-Payment Pattern of Indian Buyers.

**Ha Alternative Hypothesis:** There is significant difference between Pre- Demonetization After

Demonetization of E- Payment Pattern of Indian Buyers.

The proposed study will follow the following study outline:

1. Data collection
  - a. RBI secondary data on payments (DBIE).
2. Data analysis
  - a. Structural changes in payment patterns (Paired t test analysis)  
Pre- Demonetisation period (May2016- October 2016)  
After Demonetisation period (November 2016- April 2017)
3. E-Payments includes:
  - i) RTGS
  - ii) CCIL operated
  - iii) Paper Clearing.
  - iv) Retail Electronic Clearing.
  - v) Cards.
  - vi) Prepaid Payment Instruments.(PPI's)
  - vii) Mobile Banking.
  - viii) Cards Outstanding.

### Findings and analysis of finding

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	p@demon	17086.8750	8	22078.16837	7805.81129
	a@demone	20787.5000	8	23448.39223	8290.25858

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	p@demon & a@demone	8	.988	.000

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	p@demon - a@demone	-3700.62500	3790.18669	1340.03335	-6869.30037	-531.94963	-2.762	7	.028

**Findings of the study:** As  $H_a$  is one- sided, applying a one- tailed test ( in the left tail because  $H_a$  is of less than type) For determining the rejection region at 5% level of significant which come to as under, using table of t- distribution for 5 degree of freedom:

$$R: t < -1.895$$

The observed value of  $t$  is  $-2.762$  which falls in the rejection region and thus Reject  $H_0$  at 5% level. and conclude that Demonetizations has been a success. There is Significant difference between Pre- Demonetizations and After Demonetizations of E- Payment Pattern of Indian Buyers. In simple words of the interpretation is that after demonetization people shifts towards non cash payment.

### **Policy Implications of the Study**

After the Impact of Demonetizations, All Banks and ATM's across the country were paralysed because of shortage of cash. Merchants' role is sometimes overlooked, the study will throw light on the role of merchants and of informal peer groups to educate people about the use of mobile. The Government may introduce new actions like imposing a ban on making the purchase of luxury items in cash, etc. merchants, may further be incentivized for encouraging buyers to make purchases in non-cash form. The applied implications of this paper will have far reaching effects in defects of cash-based economy, e.g. counterfeit currency and black money, which in itself is mother of various other evils.

### **Benefits of Demonetizations**

1. *Reduction in Black Money:* It will help the government to track people who are having large sums of unaccounted cash or cash on which no income tax has been paid. After Demonetizations, all the unaccounted cash is of no value and people will have only two options: Either to deposit it in their bank accounts and pay taxes on such amount, or to let the value of that cash reduced to zero.

2. *Reduction in Illegal Activities:* Black money is used for illegal performance like terrorism funding, gambling, money laundering and inflating the price of major assets like real estate, gold, etc. Due to demonetisation, all such activities will get reduced for some time and will take years for people generate that amount of black money again.

3. *Increase in Tax Revenue:* There is an unbelievable rise in tax collections. Property Tax, Water Tax and other Corporation Levies in all states have risen noticeably. The provision of Income Tax Department monitoring the

accounts with more than Rs. 2,50,000 deposit and collecting tax with penalties will also increase the tax revenue for the government.

4. *Cashless Indian Economy*: It is virtually impossible to have a 100% cashless economy. Though the proportion of hard cash in the economy will decrease and Indian economy will get more digitized. Substitute payment methods, such as e-wallets, online transactions using e-banking, credit and debit card usage will increase extensively. This will increase usages of such payment system and enable a shift towards an efficient cashless economy. It will also outcome in larger transparency.

5. *Reduction in Govt. Liability*: The old currency will become valueless for those people, who choose not to disclose their income. It will reduce government's liability to that coverage. It is expected approximately Rs. 5 lakh crore may come to the government in the form of extinguished RBI liability, taxes and penalties.

6. The old currency retired and replaced with a new currency unit.

### **ADVERSE EFFECTS OF DEMONETISATION:**

1. *Difficulty in Non- cash Transactions*: It will be very difficult for half of the population who are not well versed with the card transactions.

2. *Difficulty in Implementation*: The government is finding it hard to implement this policy. It has to bear cost of printing the new currency notes. And also finding it difficult to put new currency into circulation. The 2,000 rupees note is a burden on the people as no one likes to do transaction with such high value currency. Some economist think it will only help people to use black money more easily in future.

3. *Huge Loss to Daily Earners*: Many poor daily wage workers are left with no jobs and their daily income has stopped because employers are unable to pay their daily wage.

4. *Corruption and Fraud:* There have been many instances of fraudulent activities where banking and post office personnel were illegally exchanging the old currency for new currency for a commission amount. The misuse of Jan Dhan accounts to exchange black money has also been exposed.

5. *Rumours from Unauthorised Persons:* Maximum person were create rumours not only for old currency but for essential goods also that they also become short very soon.

6. *Costly for the Government:* Replacement of all the Rs. 500 and Rs 1,000 denomination notes, as ordered by the government, could cost the RBI at least Rs 12,000 crore.

7. *Inconvenience to Public:* Death were also accounted for the lack of medical facilities or preparations due to denial of old currency notes by Hospitals.

8. *Adverse Effect on day to day Economic Activities:* Indian economy is heavily dependent on cash as more than half of the population uses cash for monetary transactions. Demonetisation has deeply affected trade, business and consumption. With people scrambling for cash to pay for goods and services, the move is likely to take a big toll on the India's growth and output. Long Queue and limited money exchange or deposit transaction per person. Difficult for old age and Illiterate Persons. Most of the shops are not accepting Rs.500 and Rs.1000 Notes. Maximum Shopkeepers were not ready to accept old currency.

**Impact on Money Supply:** With the older Rs. 500 and Rs. 1,000 notes being scrapped, until the new Rs. 500 and Rs.2,000 notes get widely circulated in the market, money supply is expected to reduce in the short-run. Furthermore, the extent of black money, which does not re-enter the system, money supply will decrease permanently. Yet, step by step as the new notes get circulated in the market and the mismatch gets corrected, money supply picks up.

**Impact on Inflation:** The Reserve Bank of India considered the Consumer Price Index as its primary test of measuring Inflation. Demonetizations is expected to have a negative impact on Inflation. Consumer spending activity fell to a near cut short. Consumers are non-participation from making any purchases except essential items from the consumer staples, healthcare, and energy segments. Food item inflation, measured by changes in the

Consumer Food Price Index, accounts for 47.3% of the overall CPI. As 86% of the value of the currency notes in circulation are going out of the financial system and the process of circulation of new currency being slow, the supply and demand of food items has decreased. It is expected to apply more downward pressure on Inflation.

**Impact on Liquidity Position of Banks:** The Rs. 500 and Rs.1,000 notes, which cease to be legal tender are to be deposited or exchanged in banks subject to certain limit in a one day for one person only. This will automatically lead to more amounts being deposited in Saving and Current Account of Commercial Banks. It will enhance their liquidity position, which can be utilised further for lending purposes.

**Limitations:** There is no sufficient review of literature available for the inferences to be made through an exhaustive reference. As this includes a huge amount of data handling due to its macro economical nature and the availability of the raw data from the valid sources are also crucial in this study. Added to that Time is also major hinder.

## CONCLUSION

Removal of old Rs.500 and Rs.1,000 notes and replacement of same with new Rs. 500 and Rs. 2000 notes are expected to removed black money and temporarily freeze the circulation of large volume of counterfeit currency and curb the funding for anti-social elements like smuggling, terrorism, espionage etc. Advantages are much dominating and it will be in the long-term interest of India. It is expected that demonetisation will bring positive change in India. Government of India drive towards demonetisation has given a strong push to the popularity of digital banking and made helps with the alternative arrangements of e-banking and e –wallet to trade and commerce. After comparing pre-demonetisation and after demonetization period data shows positive trend towards e-banking, m-banking cash system in payment pattern of Indian Buyers have been changed and this is a positive sign for Indian economy to fight against black money and tax evasion.

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