

AN ANALYTICAL STUDY OF THE IMPACT OF THE RECENT DEMONETISATION ON THE CASHLESS TRANSACTION TREND IN INDIAN SOCIETY

Dr. Vinod Kumar Yadav,

Assistant Professor, Department of Commerce,

Rajiv Gandhi Central University, Rono Hills, Doimukh-791112,

Itanagar, Arunachal Pradesh, India.

ABSTRACT

Demonetisation is a new phenomenon neither for India nor for the world. It is a process of the withdrawal of legal tender of the currency notes of any denomination in circulation in the country that is usually followed by remonetisation. In India, demonetisation 2016 got excessively popular because of many reasons; for examples, politicisation, propagation, wide expansion of the means of information and communication technology, associated with over eighty percent currency in circulation and being common currency notes, etc. The initial and core objective of Demonetisation 2016 made by the ruling NDA Government was tracking the black money circulated in the country in different forms and in different sectors of the economy. Government launched a surgical strike against the black money hoarders through the demonetisation mechanism, targeting at over eighty percent currency in circulation, circulated in the system in two high denomination currency notes of ₹ 500 and ₹ 1000. The government switched its fundamental objective to accelerate cashless transactions in India. However, as of now it has been a debatable issue whether demonetisation has benefited or hampered the society and economy as well or not. Point of sale terminal that is used through debit and credit cards, has become a popular and common device to facilitate cashless transaction among commoners. The focal point of present research paper is to analyse and exposing the implications of the demonetisation 2016 over prevailing trend of cashless transaction in Indian society.

Keywords: Demonetisation, Cashless Transaction, Debit and Credit Cards, Point of Sale (PoS) Terminal.

Introduction

Demonetisation in India has its a long history of around 70 years. This concept is supposed to have originated in Britain, the colonial master where it began with the calling back of 10 pound notes. For the first time in India, it was observed during the British rule period in 1946 (12 January). Its prime objective was to fight against the black marketing and tax evasion. Under the first phase of demonetisation, currency notes of the denominations of Rs.500 and above were demonetised whereas currency notes of the denomination of Rs.100 were spared. The idea behind the 1946 demonetisation move was to demonetise higher denomination currency notes, however, it remained merely conversion as around 94 percent demonetised currency notes were exchanged. In early '70s, Wanchoo Committee, a direct tax inquiry committee was set up by the Government of India, recommended demonetisation of higher denomination currency notes as a measure to unearth and counter the spread of black money and to curb graft and illicit trade from the economy. Second round of demonetisation was initiated by the Morarji Desai led Janta Party Coalition Government in 1978 (16 January). H.M. Patel was the Union Finance Minister and I.G. Patel was the Governor of RBI during second round of demonetisation. The then RBI Governor was not in favour of this move of the government. This time currency notes of the denominations of Rs.1000, Rs.5000, and Rs.10000 were demonetised. This demonetisation was not very successful because of many inherent reasons. Since demonetised currency notes constituted merely 10 percent of the overall currency in circulation and a very negligible amount of demonetised currency notes could not be exchanged. These denominations currency notes were confined to only few top class people of the

society. Thus, it had not very significant impact on the society. Third and latest round of demonetisation initiated by the incumbent Prime Minister-Narendra Damodar Das Modi led NDA Government on 8 November 2016 whereby the government ceased the legal tender of the currency notes of the denominations of Rs.500 and Rs.1000, which constituted around 86 percent of the total value of currency in circulation. First and third rounds of demonetisation had a very significant and long lasting impact on the social and economic activities of the society and Indian economy as a whole. However, second round of demonetisation had no significant impact as it was not directly associated with the lower and middle class people of the society. Even it was connected to the merely 10 percent currency in circulation. All these three rounds of demonetisation were driven by the objectives of eradication of counterfeit currency, black marketing, parallel economy, human trafficking, terrorist funding, smuggling, anti-social activities, bribe and ransom practices, etc. Rs. 15.28 lakh crore out of the Rs 15.44 lakh crore currency notes that were rendered invalid on November 8, 2016 has come back into the Indian banking system i.e. roughly 99 percent amount of the demonetised currency in circulation on 8th November 2016 has been returned to the banking system. Modi led NDA government prioritised demonetisation with the substantial objectives of unearthing black money and tackling the menace of counterfeit currency among many other important goals. However, it failed in its most preferred move because it could not manage its most expected objectives. Government switched the fundamental objectives of demonetisation to its alternative objective of making the cashless society and cashless economy as well while observing the obvious failure in the basic objectives of this popular move. Indian society is not very much progressive in terms of cashless transaction on account of different physical, psychological, technological and motivational issues. However, current government is heavily attributing cashless transaction to demonetisation. Therefore, it becomes moral onus of the literate class of the society to check that how far the current demonetisation move has accelerated the cashless transaction trend in Indian society.

Statement of Problem

Government of India has given momentum to the cashless transaction through the introduction of different schemes and many crucial steps like demonetisation. Even though as of now cashless transaction in India has not been a popular mode of day-to-day transaction in common people's lives. Debit card and credit card are basic and popular means of cashless transaction wherein credit card is not common among lower class and middle class society. Other means of cashless transaction are not very accessible and affordable due to involved technicalities and sense of insecurity therein.

Research Methodology

Present study is an empirical cum exploratory and analytical study. It is purely based on secondary data issued by the Reserve Bank of India. The original data derived from the RBI have been rounded off to two decimal places in million/billion so as to make the huge figures lucid and comparable for the commoners. Under this study, six months pre and post current demonetisation month period point of sale transaction data have been taken for the purpose of analysis and testing hypotheses. t-test has been used under the study.

Research Questions:

Present research study is an attempt to address the following questions related to the cashless transaction trend in India:

1. Has demonetisation any impact on the transactions driven by point of sale terminals?
2. Has demonetisation any impact on the prevailing cashless transaction trend in India?

Research Gap

As of now, a very few studies have been made at micro and macro levels to assess the impact of current demonetisation on cashless transaction trend in India in general and point of sale terminal operated transaction trends in particular. Thus, it is a maiden attempt to analyse and observe the impact of current demonetisation on point of sale driven transactions in India.

Reference Period

Current demonetisation of Rs.500 and Rs.1000 currency notes was announced by the incumbent NDA Prime Minister-Mr. Narendra Damodar Das Modi on 8th November 2016. Thus, current demonetisation is just one year old. So, authentic data is unavailable for the entire post demonetisation period. Hence, present study reference period is from 1st May 2016 to 31st May 2017 wherein November 2017 has been excluded from the study as it is month during which demonetisation was declared. Period from 1st May 2016 to 31st October 2016 has been taken as pre demonetisation period whereas period from 1st December 2016 to 31st May 2017 has been taken as post demonetisation period. This post demonetisation period was high time to observe the impact of current demonetisation on different sectors of the Indian economy.

Research Hypotheses

1. There is no significant difference between pre and post demonetisation period number of transactions made through the point of sale (PoS) terminals using credit cards.
2. There is no significant difference between pre and post demonetisation period number of transactions made through the point of sale (PoS) terminals using debit cards.
3. There is no significant difference between pre and post demonetisation period transaction amount made through the point of sale (PoS) terminals using credit cards.
4. There is no significant difference between pre and post demonetisation period transaction amount made through the point of sale (PoS) terminals using debit cards.
5. There is no significant difference between pre and post demonetisation period number of transactions made through the point of sale (PoS) terminals.
6. There is no significant difference between pre and post demonetisation period transaction amount made through the point of sale (PoS) terminals.

Relevance of Study

Current study is very crucial in different respects as twenty first century's orientation is towards the creation and facilitation of cashless society. Every government has been taking different steps in this direction for a long time. Furthermore, the current NDA led government has taken many substantial steps wherein demonetisation step is worth mentioning, which has multiple and multidimensional positive and negative impacts on Indian economy. Thus, any study focusing on the demonetisation impact assessment to cashless transaction gets highly relevant and contextual.

Objective of Study

Present study is based on the following objectives:

1. To analyse the impact of current demonetisation on point of sale terminal driven transactions.
2. To gauge the role and relevance of current demonetisation on the prevailing cashless transaction trend in India.

Significance of Study

Present study is highly significant in different terms as it attempts to disclose the ground level reality of the current demonetisation with respect to its linkage with promotion and expansion of cashless transaction in India. Thus, it distinguishes between the political and social aspirations in relation to the demonetisation step of the ruling party.

Limitations of Study

Major limitations of the current research study are as follows:

1. It is based on 12 months data issued by the RBI wherein first half-year time period is pre-demonetisation period and next half-year time period is post demonetisation period. Moreover, November i.e. demonetisation month data has been excluded from the study so as to keep the study away from the extreme effects, and overlapping month.
2. It is based on the point of sale terminal operated transaction data i.e. point of sale terminal has been considered as one of prominent, crucial, and popular means of cashless transactions in Indian society.

An Overview of Demonetisation in India

Demonetisation 2016 is the first experience of the twenty first century for India. However, it is not a quite new concept for India as India has already experienced it twice in the late fifties and eighties in twentieth century. Rs.500 and Rs.1000 currency notes were introduced in 1934, and Rs.10000 currency notes were introduced in 1938. In India, first round of the demonetisation took place during the British regime on 12 January 1946 whereby currency notes of the denominations of Rs.1000 and Rs.10000 were taken away from the circulation. Earlier demonetised currency notes of the denominations of Rs.1000 and Rs.10000 were reintroduced in 1954. Moreover, new currency notes of the denomination of Rs.5000 were also introduced in 1954. Second round of demonetisation in India took place during the Morarji Desai led Janta Party Coalition Government on 16 January 1978 whereby currency notes of the denominations of Rs.1000, Rs.5000, and Rs.10000 were taken away from the circulation. It was severely criticised by the then RBI Governor-I.G.Patel. Third round of demonetisation took place in India during the Narendra Damodar Das Modi led NDA Government on 8 November 2016 whereby currency notes of the denominations of Rs.500 and Rs.1000 were taken away from the circulation. First two rounds of demonetisation happened during the twentieth century did not get so popularity as the third round of demonetisation as the currency notes demonetised in first two rounds of demonetisation were mostly associated with the upper class society whereas currency notes demonetised in the third round of demonetisation were associated with the whole society including lower and middle class society. All rounds of demonetisation were based on the prime objectives of unearthing black money, curbing black money generation and black marketing, checking shadow economy, cracking down counterfeit currency, etc.

An Overview of Cashless Transaction Trend in India

The pace of cashless transaction in India is not as attractive as in case of European and Western countries because of the numerous inherent issues and challenges. Growth rate of cashless transaction in India is around 11 percent. Share of cashless transaction in overall transactions being executed by Indian is around 2 percent. Pre-demonetisation and post demonetisation period position of debit cards and credits could be understood well going through the following table:

Table No.1: Debit and Credit Cards-Position

Point of Remark	Pre-Demonetisation 2016	Post-Demonetisation 2016	Growth Rate
Average number of Debit Cards (Million)	708	837	18%
Average number of Credit cards (Million)	26.20	29.60	13%
Average number of Debit Cards per Credit Card	27	28	4%

Source: RBI

Pre-demonetisation and post demonetisation period position and changes in ATMs and PoS terminals could be observed from the table given below:

Table No.2: PoS Terminals and ATMs-Position

Point of Remark	Pre-Demonetisation 2016	Post-Demonetisation 2016	Growth Rate
Average Number of PoS Terminals	1.46 Million	2.31 Million	58%
Average Number of ATMs	202672	207419	2%
Number of PoS Terminals per ATM	7	11	58%

Source: RBI

Pre-demonetisation and post demonetisation period position and changes in the transaction done through debit and credit cards using ATMs and PoS terminals (swipe machines) could be gauged very well with the help of the following table:

Table No.3: Debit and Credit Cards' Transaction-Position

Monthly Average	Pre-Demonetisation 2016	Post-Demonetisation 2016	Growth Rate
Transaction amount per Debit Card	3438	2672	-22%
Transaction amount per Debit Card via PoS Terminal	246	504	105%

Month & Year	Approximate Number of Transactions (Million) Done Through PoS Terminals	
	No. of Transactions Done Through Credit Cards	No. of Transactions Done Through Debit Cards
Pre-Demonetisation Period		
May 2016	78.48	133.97
June 2016	76.31	118.20
July 2016	79.44	129.07
Aug. 2016	83.95	130.53
Sept. 2016	77.93	125.19
Oct. 2016	88.86	140.59
Post Demonetisation Period		
Dec.2016	116.08	415.46
Jan.2017	112.80	328.62
Feb.2017	94.93	251.75
Mar.2017	107.61	271.17
Apr.2017	106.58	267.99
May 2017	115.33	264.72

Transaction amount per Debit Card via ATM	3192	2168	-32%
Transaction amount per Credit Card	9852	11076	12%
Transaction amount per Credit Card via PoS Terminal	9741	11010	13%
Transaction amount per Credit Card via ATM	111	65	-41%

Source: RBI

Hypotheses Testing

1. **Hypothesis:** There is no significant difference between pre and post demonetisation period number of transactions made through the point of sale (PoS) terminals using credit cards.
2. **Hypothesis:** There is no significant difference between pre and post demonetisation period number of transactions made through the point of sale (PoS) terminals using debit cards.

Table No.4: PoS Terminal's Debit & Credit Cards' Transaction Number-Position

Source: RBI

In case of transaction number difference between pre and post demonetisation period made through PoS using credit cards, calculated value of t is 4.33 whereas table value of t for degree of freedom 10 at 5 percent level of significance is 2.23. Thus, there is a significant difference between the pre and post demonetisation period number of transactions made through PoS terminals using credit cards.

In case of transaction number difference between pre and post demonetisation period made through PoS using debit cards, calculated value of t is 3.82 whereas table value of t for degree of freedom 10 at 5 percent level of significance is 2.23. Thus, there is a significant difference between the pre and post demonetisation period number of transactions made through PoS using debit cards. Therefore, both the 1st and 2nd hypotheses do not hold good.

3. **Hypothesis:** There is no significant difference between pre and post demonetisation period transaction amount made through the point of sale (PoS) terminals using credit cards.
4. **Hypothesis:** There is no significant difference between pre and post demonetisation period transaction amount made through the point of sale (PoS) terminals using debit cards.

Table No.5: PoS Terminal's Debit & Credit Cards' Transaction Amount-Position

Month & Year	Approximate Amount Of Total Transactions (Billion INR)	
	Amount of Transaction Done By Credit Cards	Amount of Transaction Done By Debit Cards
Pre-Demonetisation Period		
May 2016	249.60	155.15
June 2016	239.56	155.00
July 2016	243.41	170.92
Aug. 2016	257.49	183.70
Sept. 2016	241.98	159.32
Oct. 2016	299.42	219.41
Post Demonetisation Period		
Dec.2016	311.49	580.31
Jan.2017	327.08	490.04
Feb.2017	287.04	358.43
Mar.2017	333.90	356.99
Apr.2017	331.43	374.82
May 2017	361.41	371.62

Source: RBI

In case of transaction amount difference between pre and post demonetisation period made through PoS using credit cards, calculated value of t is 2.96 whereas table value of t for degree of freedom 10 at 5 percent level of significance is 2.23. Thus, there is a significant difference between the pre and post demonetisation period transaction amount made through PoS terminals using credit cards. In case of transaction amount difference between pre and post demonetisation period made through PoS using debit cards, calculated value of t is 3.66 whereas table value of t for degree of freedom 10 at 5 percent level of significance is 2.23. Thus, there is a significant difference between the pre and post demonetisation period transaction amount made through PoS terminals using debit cards. Thus, both the 3rd and 4th hypotheses do not hold good.

5. **Hypothesis:** There is no significant difference between pre and post demonetisation period number of transactions made through the point of sale (PoS) terminals.
6. **Hypothesis:** There is no significant difference between pre and post demonetisation period transaction amount made through the point of sale (PoS) terminals.

Table No.6: PoS Terminal Transaction Number & Amount-Position

Month & Year	Transactions Made Through PoS Terminals	
	Approximate Number (Million)	Approximate Amount (Billion INR)
PRE-DEMONETISATION PERIOD		
May 2016	212.44	404.75
June 2016	194.51	394.56
July 2016	208.51	414.33
Aug. 2016	214.48	441.19
Sept. 2016	203.12	401.30
Oct. 2016	229.45	518.84
POST DEMONETISATION PERIOD		
Dec.2016	531.54	891.80
Jan.2017	441.43	817.12
Feb.2017	346.68	645.48
Mar.2017	378.78	690.90
Apr.2017	374.58	706.25
May 2017	380.05	733.03

Source: RBI

In case of PoS based transaction number difference between pre and post demonetisation period, calculated value of t is 4.08 whereas table value of t for degree of freedom 10 at 5 percent level of significance is 2.23. Thus, there is a significant difference between the pre and post demonetisation period number of transactions made through PoS terminals.

In case of PoS based transaction amount difference between pre and post demonetisation period, calculated value of t is 4.4 whereas table value of t for degree of freedom 10 at 5 percent level of significance is 2.23. Thus, there is a significant difference between the pre and post demonetisation period overall amount of transactions made through PoS. Thus, both the 5th and 6th hypotheses do not hold good.

Findings

It is clear from the aforesaid analysis of the data fetched from the RBI that there is a substantial growth in the absolute number and amount of transactions made through the point of sale terminals using debit and credit cards. Thus, there has been an upward trend in the number and amount of transactions made through the point of sale terminals. Though every transaction made through the point of sale terminals does claim to be a cashless transaction; however, it implies a progressive change in the number cashless transactions as all the transactions made through the point of sale terminals are not always only for retrieving cash to execute transactions further. Demonetisation has brought about a significant change in the number of debit card and credit card as well that denotes overt and covert movement of the society from cash based transactions to cash free transactions. The amount of each transaction made by debit card has declined significantly; and amount of each transaction made by debit card via ATMs has substantially come down as debit cards are mostly used by the ordinary people of the society (i.e. lower and middle class society) and during first half-year post demonetisation period, supply of currency notes in the market was very less as compared to the demand for the same. The amount of each transaction made through both the credit card and debit card via ATMs came down considerably during the first half-year post demonetisation period on account of critical cash supply in the market and cash crunch in almost all the ATMs.

Conclusion

Thus, the demonetisation move of the government has forced almost every section of the society to be a cash free society from the cash full society. Rate of conversion of society from with cash to without cash is higher especially in middle upper class and upper class society as lower class people do not have good access and confidence to mechanisms facilitating the execution of cashless transactions. Therefore, demonetisation has accelerated the pace cashless transaction and pushed the cashless transaction trend forward in almost every society. However, the return yielded by it is not significant against its costs if everything is properly taken into the consideration while making its cost benefit analysis in real sense. The change in the number and amount of transactions made through the point of sale terminals using debit and credit cards cannot be attributed to the demonetisation only as during this period different technological advancements have also taken place like introduction of different apps, schemes, Jio 4G LTE Network, etc. in the market to facilitate and accelerate the cashless transactions all over the country. However, there is no sign that denies the positive implications of demonetisation over the promotion and expansion of cashless transactions in Indian society.

The Way Forward

Demonetisation move of the government had been very critical even though intention hidden behind it was good enough. However, there had been enormous errors in its planning and execution that led to the immense hardship to most of the lower and weaker sections of the society. Demonetisation is neither solution to unearth black money and checking corruption from the society nor an appropriate means of making the cash dependent society to cashless society. As far as exposure of black money and eradication of shadow economy are concerned, demonetisation drive may not prove successful in attaining these objectives rather than creating chaos and hue and cry in the society as well. Demonetisation could be done in a more better way by way of taking the planned currency notes to be demonetised out of the circulation gradually in a phased manner without creating any hype among the public through different print and electronic media; at the same time new currency notes printed without making any change in their sizes could be circulated in the system in the same manner. Had it been executed so, it would neither have taken many lives nor disturbed the pace of the economy and lives of the common people of the society. So far as making the cashless society is concerned, demonetisation move could never be considered suitable socially and economically, rather government should emphasise on building and developing required infrastructure to facilitate the with cash society to become without cash society. Building of infrastructure in this context is inevitable to ensure the outreach of the cashless mechanisms to each and every person of the society. However, the story does not end with the building of infrastructure to support cashless system; moreover, confidence building among the society to the cashless mechanism is equally important otherwise entire effort would go waste in the absence of proper confidence

building that could be done by way of providing enough security and recovery measures to the society against the loss from application of cashless mechanisms and instruments.

References

1. Patel, R., Kunchi, A., Mishra, N., Bhaiyat, Z., & Joshi, R. (2015). Paytooth-A Cashless Mobile Payment System based on Bluetooth. *International Journal of Computer Applications*, 120(24).
2. Shendge, M. P. A., Shelar, M. B. G., & Kapase, A. P. S. S. Impact and Importance of Cashless Transaction in India.
3. Patil, S. (2014). Impact of Plastic Money on banking trends in India. *International Journal of Management Research and Business Strategy*, 3(1).
4. Mukhopadhyay, B. (2015). Promoting Cashless Payments in India.
5. 12. Mukhopadhyay, B. (2016). Understanding cashless payments in India. *Financial Innovation*, 2(1), 27.
6. Jain, K., & Pandiya, S. (2017). India: Currency Demonetisation and the Way Ahead. *Management Insight*, 12(2).
7. Daru, M. U. (2016). Cashless India: Dream of Future India. *International Journal of Research in Finance and Marketing*, 6(12), 141-149.
8. Ramdurg, Anil I., & Bassavaraj, C. S. (2016). "Demonetization: Redefining Indian Economy". *International Journal of Commerce and Management Research*. 2 (12), pp. 07 – 12.
9. Chelladurai, M and Sornaganesh, V. (2016). "Demonetization, Unified Payment Interface & Cashless Economy". *International Journal of Informative & Futuristic Research*, 4 (3), pp. 5654 – 5662.
10. Saini, B. M. (2016). "Demonetisation – Metamorphosis for cashless India". *International Journal of Science and Research (IJSR)*, 5 (12), pp. 1035 – 1036.
11. Subramanian.S., Paper- free payment systems in India - an analytical study, international journal of Management (IJM), Volume 5, Issue 1, January 2014, IAEME.
12. VISA, Accelerating the growth of digital payments in India: A Five-Year Outlook, October 2016.
13. Annamalai, S. and Iakkuvan R. Muthu. (2008). Retail Transaction: Future Bright for Plastic Money, Facts of You, May, pp. 22-28.
14. Akriti & Kaur (2015), "Black money in India: Current Status & impact on Economy" Abhinav National Monthly Refereed Journal Of Research In Commerce And Management. Volume 4, Issue 4, Pg. 34-40
15. The Impact of Demonetization in India, (Chatterjee&Banerji 2016).
16. Mukhopadhyay, Bappaditya. (2016). "Understanding Cashless Payments in India". *Financial Innovation*, 2, pp. 1 – 26, doi: 10.1186/s40854-016-0047-4.
17. A study on widening of tax base and tackling black money, FICCI, February 2015
18. <http://ijsetr.org/wp-content/uploads/2017/08/IJSETR-VOL-1-ISSUE-5-145-153.pdf>
19. <http://ijsetr.org/wp-content/uploads/2017/08/IJSETR-VOL-1-ISSUE-5-145-153.pdf>
20. bankexamstoday.com. (2016, Nov 10). *Pros & Cons of Demonetization of Big Currency Notes*. Retrieved Dec 4, 2016, from <http://www.bankexamstoday.com/2016/11/pros-cons-of-demonetization-of-big.html>
- Shankaran, S. (2016, Nov 15). *Demonetization in 1946 and 1978: Stories from the past*. Retrieved Dec 4, 2016, from <http://blogs.timesofindia.indiatimes.com/cash-flow/demonetization-in-1946-and-1978-stories-from-the-past/>
21. RBI data retrieved on 21.11.2017 from <https://rbi.org.in/scripts/ATMView.aspx?atmid=77>
22. The Free Press Journal: Article-"India's history with demonetisation: from 1946 to 2016" written by Sonali Pimputkar retrieved on 24.11.2017 from <http://www.freepressjournal.in/featured-blog/indias-history-with-demonetisation-from-1946-to-2016/988212>
23. New Careers Academy: Blog-"Know all about history of Indian currency note demonetisation" retrieved on 24.11.2017 from <https://www.ncaacademy.com/know-all-about-history-of-indian-currency-demonetisation>
24. Wikipedia: Article-"2016 Indian banknote demonetisation" retrieved on 26.11.2017 from https://en.wikipedia.org/wiki/2016_Indian_banknote_demonetisation
25. The India Express: Article- Demonetisation: "Three times India faced the big move" retrieved on 30.11.2017 from <http://indianexpress.com/article/india/india-newsindia/demonetisation-narendra-modi-currency-ban-rs-500-rs-1000-1946-1978-43811683/>