

**INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & RESEARCH  
TECHNOLOGY****8TH NOVEMBER 2016 DEMONETIZATION - THE RISE OF ELECTRONIC  
PAYMENT SYSTEMS****Praboju Shirisha\***

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**ABSTRACT**

On 8 November 2016, the total world came to know that the Prime Minister Mr. Narendra Modi announced the demonetization in an unscheduled live televised address at 20:00 (IST) on 8 November the demonetization of Rs.500 and Rs.1000 banknotes would be invalid, and announced the issuance of new Rs.500 and Rs.2000 banknotes of New Series in exchange for the old banknotes with a deadline for exchange and the problem evolved for physical cash availability that became an issue and its impact is felt by every Indian citizen. As majority i.e. 78% of consumer payments in India are made in cash and most of the currencies used were Rs.500 and Rs.1000 for transactions, and to overcome this problem Government of India found out various regulatory and infrastructural reforms to create a favorable atmosphere for electronic payment systems. This paper focuses on the study of providing a comprehensive overview of overall development of Electronic payment systems impact, challenges and outcomes.

**KEYWORDS:** Demonetization, cashless payment, mobile banking, e-payments, Digitalization.**I. INTRODUCTION**

Indian economy until Demonetization was maximum dependant on cash. The currency notes are prevailing in the Indian economies which were used to spend and save money. However, the sudden announcement of the demonetization of INR 500 and 1000 currency notes has stimulated a new wave in the adoption of the digital payments across the nation. While the currency modification paradigm was brought in place to prevent the hoarding and the subsequent circulation of unaccounted money, it has eventually conjured a number of side effects like long ATM queues, liquidity crisis and the lack of money countered by the common public. Unavailability of cash forced the masses to sample alternative digital payment methods, which led to a magical surge in the number of cashless transactions and could eventually lead to an exhaustive "Digital" economy for India. But every Indian has only one thing in mind, the dilemma of choosing a safe, secure, convenient and cashless payment option among all available cashless payment systems include credit/debit cards, e-wallets such as Paytm, Unified Payment Interface (UPI), IMPS, USSD, RTGS, NEFT, Instamojo Payment Gateway, PayUMoney, Mobikwik, Oxigen Wallet app etc and how to use the payment options and for what kind of transactions to be used due to reasons like lack of knowledge about payment systems, illiteracy, lack of awareness etc.

Electronic payment systems / Digital payment are made through digital modes. In digital payments, payer and payee both use digital modes to send and receive money. No hard cash is involved in the digital payments. So it is a convenient way to make payments.

**II. GOVERNMENT INITIATIVES TOWARDS ELECTRONIC PAYMENT SYSTEMS**

The Government of India has been at the forefront in the drive to encourage digital payments. It has reduced some taxes and announced incentives for digital payments. It has launched Lucky Grahak Yojna for customers and Digi Dhan Vyapar Yojna for shopkeepers. Where the users can get cash prizes up to 1 crore if paid digitally. Due to these incentives and waivers, more people shown interest in digital payments. Not only is this but the Reserve Bank of India doing the best to encourage various alternative methods of payments which can bring security and efficiency to the payments system.

The RBI has played a pivotal role in facilitating e-payments by making it compulsory for banks to route high value transactions through Real Time Gross Settlement (RTGS) introduced in 2004 and also the popular Electronic Fund Transfer (EFT) system, introduced in the late 1990s to enable account-to-account transfers, was replaced by one-to-one NEFT system in November 2005 (National Electronic Funds Transfer) and NECS (National Electronic Clearing Services) which has encouraged individuals and businesses to switch to electronic methods of payment.

#### Steps taken by RBI and Government towards cashless payments

- Facilitating the licensing of various Payment Institutions/banks
- Promoting mobile wallets usage. RBI had issued certain guidelines which allow users to increase their transaction limit to Rs 1,00,000 based on a certain KYC verification
- Promotion of e-commerce by liberalizing the FDI norms.
- Government has inhibited surcharge, service charge on digital payments
- Government has Launched (UPI) unified payment interface, the mobile app. There are many other UPI apps available such as BHIM, SBI UPI app, HDFC UPI app, iMobile, PhonePe app etc. UPI apps are a faster solution to send money using VPA or even IFSC and account number.
- AEPS is an Aadhaar based digital payment mode. Customer needs only his or her Aadhaar number to pay to any merchant. AEPS allows bank to bank transactions, AEPS is that it doesn't need signature, bank account details or any password. It uses your fingerprint as a password, the most secure digital payment mode.

### III. ROLE OF PRIVATE COMPANIES TOWARDS ELECTRONIC PAYMENT SYSTEMS

Online payment gateways have traditionally provided to sellers selling their product & services remotely over the internet through websites and mobile applications. Several e-commerce companies hailed the demonetization decision as an impetus to increase in digital payments. The demand for point of sales (POS) increased; India has about 1.2 million POS terminals there is an increase in card swipe machines. E-payment options like PayTM, E-wallets, Instamojo Payment Gateway, PayUMoney, Mobikwik, Oxigen Wallet app for the merchant payments service and also other innovative payment systems (like closed wallets, Pre-paid instruments (PPI), eCom, etc.) have increased. According to data of Pine Labs, the demand for its POS machines doubled after the decision. The company stated that the debit card transactions rose by 108% and credit card transactions by 60% on 9 November 2016.

### IV. CHALLENGES IN MAKING INDIA A CASHLESS ECONOMY

- The first and foremost thing is availability of internet connection and financial literacy to the people.
- Most of the bank accounts are lying un operational. Unless people start operating bank accounts cashless economy is not possible.
- Fear towards digital transactions due to safety and security reasons and lack of knowledge towards all the available technologies available promoting cashless transaction.
- Small retailers are more in number and cannot afford and invest in electronic payment infrastructure.
- Most card and cash users fear about surcharges and service charges levied if transactions are done using cards.

### V. IMPACT OF DEMONETIZATION ON ELECTRONIC PAYMENT SYSTEMS

Demonetizing is Progressive shift towards a cashless economy with a greater focus on electronic transactions the rise in use of mobile wallets, POS, credit/debit cards, net banking and other online payment mechanisms apps etc that had emerged as preferred modes of payment following the lack of availability of cash. Demonetization announcement, has suddenly seen a spike in both app downloads and merchant registrations coming from all cities, big and small, consisting of small merchants like vegetable vendors, Kirana shopkeepers, convenience stores, street vendors, rickshaw drivers, taxi's etc. The farmers' markets of Telangana began experimenting with their own electronic payment system where customers with Aadhar-linked bank accounts could buy vegetables using tokens which could be purchased via debit cards at specialized kiosks. Mobile wallet transactions had a huge impact in the field of banking transactions, money transfers and value additions like mobile & DTH recharges, bill payments, ticketing and shopping.

For an example: EBS (E-billing Solutions Pvt. Ltd), a fully owned subsidiary of the Ingenico Group, is a leading online payment gateway that helps online sellers receive payments from the end customers via a cluster of payment methods including net banking, debit/credit cards and mobile wallets. After demonetization it quickly reacted to the situation and supported its online sellers to even convert the COD transactions into payment links that can be sent over Email & SMS helping both the sellers and buyers promoting cashless transactions.

### The Ups and Downs in Electronic Payment systems from the period of Demonetization

Electronic payments had risen up significantly in the months of November and December 2016 during the government's decision of demonetizing. In December 2016, transactions through electronic payment methods had peaked and the volumes jumped to 957 million following the cash crunch and the slew of incentives announced by the Centre to promote digital payments.

A senior government official told The Indian Express that demonetisation was a great opportunity to drive the digital transaction ecosystem. He, however, added that people would go back to old habits as and when the cash supply eases. "Currently, both cash and digital payments have convenience but cash comes without a cost, whereas digital has a cost attached to it. If that's not dealt with, cash will become more convenient by default and people will go back to using it when supply in the economy is normalised. For this, some tweaking of policy is required so that digital payments become a habit," the official said.

**21.3% DECLINE IN VOLUME OF TRANSACTIONS**  
**16.7% DECLINE IN VALUE (FEB OVER JAN)**

(UPDATED AS ON FEBRUARY 28, 2017)

Data for the period		Nov-16	Dec-16	Jan-17	Feb-17	Change*
Debit and Credit Cards at POS	Volume	205.5	311.0	265.5	190.4	-28.3
	Value	352.4	522.2	481.2	352.4	-26.8
PFI (wallets)	Volume	59.0	87.8	87.3	72.3	-17.1
	Value	13.2	21.3	21.0	17.2	-18.0
Mobile Banking	Volume	72.3	70.2	64.9	51.5	-20.7
	Value	1244.9	1365.9	1206.7	904.5	-25.0
Total**	Volume	671.5	957.5	870.4	684.7	-21.3
	Value	9400.42	104055.3	97011.4	80765.0	-16.7

Volume in million and value in Rs billion  
\*In February 2017 over January 2017\*\*Includes RTGS, NEFT, CTS, MPS, NACH, UPI and USSD

Source: <http://images.indianexpress.com/2017/03/graph.jpg>

The data shown above in volume terms that the transactions through electronic payment modes fell 21.3 per cent from 870 million in January 2017 to 684 million in February. In value terms, the decline was 16.7 per cent from electronic transactions valued at Rs 97,011 billion in January 2016 to Rs 80,765 billion in February 2017. The pace of decline shows that consumers have begun to move back to their traditional payment method. The decline in February was seen across various payment modes that people had adopted for their payments at the time of demonetization. Volume of transactions through the use of debit and credit cards at PoS terminals fell sharply by 28.3 per cent while that through mobile banking also declined by 20.7 per cent.

## VI. CONCLUSION

India had experienced growth in digital payments after demonetization but gradually reduced usage of electronic modes of payment according to data released by the RBI, the decline in value terms also accelerated in February over January 2017. In 2015-16, the total of Rs. 4018 billion transactions was through mobile banking as compared to Rs. 60 billion in the years of 2012-13. Digital transactions declined from January 2017 onwards in February 2017 saw a month-on-month decline of 21.3 per cent in the volume of digital transactions, higher than the 9.1 per cent fall seen in January 2017 over December 2016. Despite demonetisation, the way of thinking that cash is king is still prevailing among the rural population of India, who has limited access to the



Internet and Smartphone's. Though the Indian payment systems have always been dominated by paper-based transactions, e-payments are not far behind

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