



RESEARCH ARTICLE

IMPACT OF ELECTRONIC PAYMENT ADOPTION: IN THE CASE OF SMALL RETAILERS

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ABSTRACT

Sixty years ago, most consumers used cash or checks to buy goods and services, with cash predominately used for smaller purchases and checks for more costly transactions. While cash remains the predominate form of payment in some places in the world, it has become a less common method of transaction as the advent of general purpose payment cards has allowed consumers and businesses to buy and sell with greater convenience. Today, consumers can make electronic payments with credit, debit and prepaid cards and more recently, using all kinds of devices, from watches to mobile phones. The impact of card usage on consumption and economic growth varied considerably across the 70 countries. This reflects differing economic growth rates, penetration, and financial systems. Financial systems conducive to the growth in electronic payments include control over inflation and the money supply, a wide network of stable and readily accessible banks, insurance companies and pension funds, the existence of markets such as stock exchanges, and the availability of such financial infrastructure as ATMs. This paper is aimed at evaluating the present status and growth of online payment systems in small scale retailers and also takes a look at its future. In this paper, a comprehensive survey on all the aspects of electronic payment has been conducted after analysis of several research studies on online payment systems we have identified the consumers and business face disincentives in migrating to electronic payments.

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INTRODUCTION

In the retail sector we have very high volumes of money transactions. Other than cash, one of the growing payment methods adopted by merchants in the sector is payment cards. However, the whole isometrics of moving from cash-driven economy to cashless economy has somehow been assorted with demonetization that was aimed to extract liquidity from the system to unearth black money. With increasing adoption of electronic payments, particularly those driving e-commerce and commerce, there is a growing demand for faster payment services which, in turn, facilitate ease in doing financial transactions. According to Government of India the cashless policy will increase employment, reduce cash related robbery thereby reducing risk of carrying cash. Cashless policy will also reduce cash related corruption and attract more foreign investors to the country. In many countries introduction of cashless economy can be seen as steps in the right direction. It is expected that its impact will be felt in modernization of payment system.

Reduction in the cost of banking service, Reduction in high security and safety risk and also curb banking related corruption. Electronic banking will be made banking transaction to be easier by bringing services closer to its customers hence improving banking industry performance. The financial safety over the digital payment channel is important for pushing the cashless economy idea. A major obstacle for the quick adoption of alternate mode of payment is mobile internet penetration, which is crucial because point of sale terminal works over mobile internet connection, while banks have been charging money on card based transaction which is seen in hurdle. India has been using electronic payment system for many year now, However the retail sector still has predominance of cash transaction and payment through cash is yet to pick up card is the one of the most secure, convenient mode of cashless payment in retail market.

**Review of Literature:** Alvares, Clifford (2009) proposed "The problem regarding fake currency in India." It is said that the country's battle against fake currency is not getting easier and many fakes go undetected. It is also stated that counterfeiters hitherto had restricted printing facilities which made it easier to discover fakes. Ashish Das, and Rakhi Agarwal, (2010) further studied "Cashless Payment System in India- A

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Roadmap” Cash as a mode of payment is an expensive proposition for the Government. Jain, P.M (2006) found out “E-payments and e-banking” opined that e- payments will be able to check black ”An Analysis of Growth Pattern of Cashless Transaction System. Taking fullest advantage of technology, quick payments and remittances will ensure optimal use of available funds for banks, financial institutions, business houses and common citizen of India.

### Objectives

- The impact of demonetization, as well as the impact of the introduction of electronic payments bank services on financial inclusion.
- To study the Quantify changes in levels of financial inclusion and utilization of digital financial services following demonetization.
- Produce knowledge of how consumers coped with any negative effects of demonetization and effect of cashless payment.
- To know the impact of note ban decision on the Indian economy and cashless payment.

This study will helpful for the citizens of India, Indian government, businessman and the Indian customers. This study will help the Indian government to know about the future conditions of the economy. Through this study the government for policy making to the betterment of the economy. This study will also helpful for the Indian citizen because they would be able to know the present and future condition of the economy and they can take rational decision on their income and expenditure. Any businessman can also take the wise decision so that he will be able to generate more revenue and can earn the profit in the actual market scenario. Finally everybody would be able to know the impact to fnote banned decision on Indian economy as well as Indian markets.

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.870
Bartlett's Test of Sphericity	Approx. Chi-Square	434.955
	df	28
	Sig.	.000

Factors	1	2	3
Eigenvalues	41.59%	12.42%	10.01%
Digital Literacy	0.8959	0.8766	0.7691
Impact of Demonization	0.9874	0.7635	0.6572
Impact of RTGS & NEFT transaction	0.8753	0.6529	0.6527

Cluster 1	Cluster 2	Cluster 3
HIGH	MODERATE	LOW
79.000	28.000	35.000
MODERATE	HIGH	HIGH
49.000	108.000	100.000
LOW	LOW	MODERATE
25.000	17.000	18.000

Factors	High	Moderate	Low	Total Percent	Asymp. Sig. (2-sided)
Retail	51.6%	32.1%	4.3%	88%	.000*
Agriculture	42.4%	24.3%	14.3%	81%	.000*
Real Estate	17.8%	30.9%	28.3%	77%	.000*
Construction	36.4%	27.6%	10.0%	74%	.000*
Media and Entertainment	36.9%	30.9%	1.2%	69%	.000*
Gems & Jewellery	25.3%	30.9%	8.8%	65%	.000*
Tourism and hospitality and wellness	35.0%	15.0%	11.0%	61%	.000*
Labour intensive sectors (Leather, mining, textiles)	29.6%	12.1%	14.3%	56%	.000*
Automobiles	25.3%	19.3%	10.4%	55%	.000*

**Data Collection:** The Data were collected from secondary Sources. Secondary data is collected from journals, articles, newspapers and also from relevant websites available on internet.

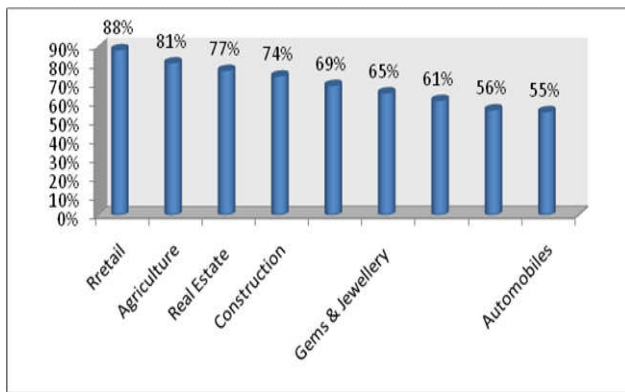
### MATERIALS AND METHODS

**H<sub>0</sub>:** The factor analysis under study is invalid. On testing the above hypothesis, we get

Since the table value (0.000) < 0.05, we reject the null hypothesis stating that this factor analysis taken under study is valid and so we move in for further calculations. With reference to various Factors Digital Literacy Factor allocated in the First Factor that account for nearly 42% of the total variation. Then the Impact of Demonization's are heavily loaded in the Second Factor accounting for about 12.42% of total variation. And the Third Factor comprises of Impact of RTGS & NEFT transaction and it has about 10% of the total variation. We finally conclude that the various variables which are included for study are explained by the THREE factors depending on their priority and the amount of variation they have among the total variation. These are the factors that are responsible for the impact of cashless payment in India during demonization.

**The k-means Algorithm:** The k-means algorithm is an evolutionary algorithm that gains its name from its method of operation. The algorithm clusters observations in to k groups, where k is provided as an input parameter. The assigns each observation to clusters based upon the observation's proximity to the mean of the cluster. The cluster's mean is then recomputed and the process begins again. Here's how the algorithm works:

**Step1** - The algorithm arbitrarily selects k points as initial cluster centers (means).



**Step 2** - Each point in the dataset is assigned to the closed cluster, based upon the Euclidean distance between each point and each cluster center.

**Step 3** - Each cluster center is recomputed as the average of the points in that cluster.

**Step 4** - Steps two and three repeat until the clusters converge. Convergence may be defined differently depending upon the implementation, but it normally means that either no observations change clusters when steps two and three are repeated or that the changes do not make a material difference in the definition of the clusters.

From the above table we identify the Grouping Clusters that indicates that majority of the commuters are belongs to High affected level. The possible reasons Digital literacy booths outside banks majorly in rural regions, facility of mobile ATMs. Enhance in the limits of removal of service tax charged, increase in daily cash withdrawal limits from ATMS.

**Correspondence Analysis:** Correspondence analysis is a method of factoring categorical variables and displaying them in a property space which maps their association in two or more dimensions (Johnson and Wichern, 1982). It is often used where a tabular approach is less effective due to large tables with many rows and/or columns. Though not limited to that arena, correspondence analysis been popular in marketing research, as to display such variables as customer cooler preference, size preference, and taste preference in relation to preferences for Brands A, B, and C. Correspondence analysis is a special case of canonical correlation, where one set of entities (categories rather than variables as in conventional canonical correlation) is related to another set. Since the Significance values are .000\*\* which is less than .05. So we reject the null Hypothesis. This table shows that these are the factor affected very largely because of cashless payment and also demonization. In that retail industries affect almost 89% among all these factors. Agricultural sector affected next to the retail market at the amount of 81%.

Similarly Real Estate affected 77%, Constructions 74%, Media and entertainment 69%, Gems and Jewellery 65%, Tourism 61%, Labour intensive 56% and also Automobile sector affected at the amount of 55%.

## Conclusion

Based on the wide area of analysis we have find that government need t o setting up of digital literacy booths outside banks majorly in rural regions for spreading digital literacy across all sections of the nation and Indian government should print more and smaller denominations such as Rs.50, 100and Rs.500notessothatthere should be sufficient circulation of money in the market. Our Government also ensure that the sufficient quantity of money is being transported to the banks and ATMs in both rural and urban areas on time, facility of mobile ATMs in the Government, public sector and private corporate sector. Government has to implement Incentivize RTGS (Real Time Gross Settlement) and NEFT (National Electronic Funds Transfer) under the ambit of digital transfers in order to adopt the available facility and are less dependent on cash transactions. Increase in daily cash withdrawal limits from ATMS.

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