

Digital payments system and rural India: A review of transaction to cashless economy

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Abstract

Rural areas, home to two thirds of the country's population, at present 870 million people. Rural India has significant impact on the economic progress of the country, and with the emerging changes of ICT penetration, and rural users will constitute about half of all Indian internet users in 2020. The digital initiatives carried out for rural segments, the need for improving the trends of digital payments model in rural India is very significance. Considering the benefits like transparency in transactions, it is very essential that the transformation towards digital payments, even in the rural economy is empowered. Many changes took place in the recent past like launch of many digital wallets like - Paytm, Mobiwik, Free Charge etc. and government launching many UPI (united payment interface) solutions and BHIM app for smooth transition to digital payments. The objective of this research paper is to study the positive impact that Digitization of payment system in Indian economy will have on the development of Rural Indian Sector.

Keywords: digital payment, rural and urban India, digital transactions

1. Introduction

India has joined other countries in the digital payment revolution a lot faster than the past where we often lagged behind in adopting technology, especially in the financial sector. This is set to have a transformative impact on our country, especially as digital payments spread into rural areas. Statistics show that in 2012, 86.6 percent of payments in India were cash payments, and between 2012 and 2013, India had more than 7600 crore pieces of current floating in the economy. Worldwide there is a tremendous interest among policymakers to explore the possibility of moving towards a cashless economy. Digitisation of transactions is the best way to move towards cashless economy. Rural areas are home to two thirds of the country's population of some 870 million people where much of the challenge lies in achieving cashless transactions for the rest of the decade. It is estimated that rural users will constitute almost half of all Internet users in 2020. Number of connected rural consumers is expected to increase from 120 million in 2015 to almost 315 in 2020. Over 93% of people in rural India have not done any digital transactions. So the real problem lies there. The government has taken steps including announcing zero balance accounts for people, but growth of Bank branches has been low.

2. Objectives of the Study

1. To study the digital payment and cashless economy through Aadhaar pay in rural India.
2. To examine the DigiDhan Abhiyan opts for Paytm in Rural in India
3. To know the problems and challenges of digital payment in rural India
4. To enlist the prospects and the road ahead of the study and offer appropriate suggestions for an effective implementation of digital payment.

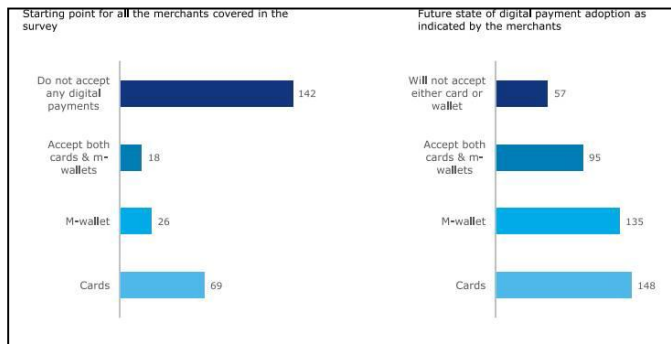
3. Digital Payment in Rural India

More than half a million volunteers helping job seekers in different rural schemes now have a new target: To enrol people and shops in e-economy and train them in cashless transactions. And despite an incentive of Rs 100 for making each village shop accept any form of digital payment, volunteers across India are facing a daunting task. So far, just 55,000 merchants have gone digital and 2.5 million rural Indians enrolled in cashless transactions after the government recalled Rs 1,000 and Rs 500 notes on November 8. The National Payment Corporation of India (NPCI), to ease formats of two payment systems USSD and UPI. In villages, people prefer fingerprints over other security features and it will help in higher rates of enrolment. But even the rural development ministry's own set-up for cashless economy needs major improvements.

Out of the 1.1 million active workers of the Centre's rural job scheme Mahatma Gandhi National Rural Employment Guarantee Scheme just 34% have an Aadhaar-linked bank account. This comes amid a strong push for cashless economy by Prime Minister Narendra Modi a decision criticised by the Opposition as anti-poor. Now, the rural ministry has set an ambitious target to get Aadhaar-linked bank account in another 35 million job accounts. But mere enrolment will not be enough, as opportunities to transact cashless is still limited. In a review meeting, the Kant panel found that out of 160,000 ration shops in the country, only 35% had machines to identify biometrics of MGNREGA workers. But there is a massive interest among people, particularly the rural youth, to adopt new ways to go cashless.

For instance, the fig.1 depicted below indicates the kind of development that has taken place in the digital transactions in the recent trends. The impacting factors attributed to such transformation are increasing compliance requirements,

demonetization impact, incentives and initiatives from governments encouraging digital transactions.



Source: [13] Figure 1 Pre & Post Demonitization Trend for Digital Payments

Fig 1

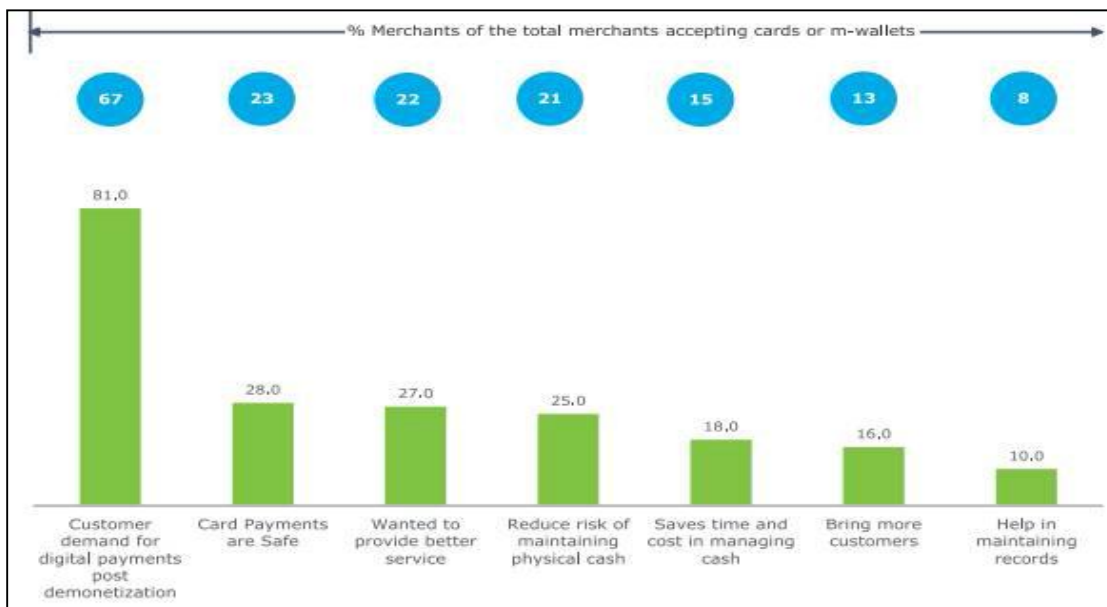
4. Cashless Economy through ‘Aadhaar Pay’ in Rural India

In an attempt to encourage poor and illiterate people in rural areas to make digital payments, the government is promoting Aadhaar Pay which ensures financial transactions by just using fingerprint. In an attempt to encourage poor and illiterate people in rural areas to make digital payments, the government is promoting Aadhaar Pay which ensures financial transactions by just using fingerprint. Aadhaar Pay – the merchant version of the Aadhaar-enabled payment system (AEPS) which is already in use – will become an alternative for all online and card transactions which require password and PIN. Through this app, merchants can take cashless payments from a customer who is only required to give his Aadhaar number,

name of bank from where the money is to be deducted, and finger print for authentication.

A Times of India report cited Unique Identification Authority of India (UIDAI), the app works on any android-based phone, even a lost cost one, with an attached finger biometric device. This ensures digital transactions which are cardless, PINless. There is no need of smartphone for the customers. In order to popularise the use of Aadhaar Pay among merchants in rural areas, the government has asked banks to enrol 30-40 merchants per branch so that they are able to take cashless payments from customers. Five banks were gone live over Aadhar pay services in rural area like Andhra Bank, IDFC Bank, IndusInd Bank, State Bank of India and Syndicate. Whereas several other banks are in the process of launching pilots on the app, the plan is to identify the transactions made through the app separately in order to incentivise merchants for long-term sustainability and scalability of the system.

While the biometric device costs about Rs. 2,000, the government is working on an incentive model so that the cost of the device is paid off over time and the merchants are encouraged to use it. Transactions using Aadhaar Pay are much more secure than any other digital mode of transaction, both in terms of technology and process. Fingerprints can't be copied as it gets encrypted. Even if any merchant or customer tries to misuse the fingerprints, he will be caught immediately as the location of merchants using the app is known to the bank. From the represented fig.2, it is imperative that the customer demands for digital payments are on high than the earlier periods. However, the other notable fact is that over the recent past, even prior to demonitization, there are significant developments taking place in the system. For



Source: [13] Figure 2 Impacting Factors for Digital Payments

Fig 2

5. DigiDhan Abhiyan opts for Paytm in Rural in India

Among the 2.98 lakh merchants enrolled, 82,746 merchants in rural areas enabled under the scheme to use digital payment tools were on Paytm wallet. Nearly one in three rural persons

newly enrolled on electronic payment systems under the Centre’s outreach programme for digital transactions in the hinterland the DigiDhan Abhiyan has registered on the Alibaba-backed mobile wallet Paytm. Compared with the

28.92 per cent share of Paytm in the total rural citizens registered under the scheme since its launch, the adoption of the government-backed Unified Payment Interface (UPI) and Unstructured Supplementary Service Data (USSD) schemes was cumulatively just over 20 per cent, the government data showed. Under the Abhiyan, launched on December 9, village-level entrepreneurs of the Common Service Centres (CSCs) launched by the government as a strategic cornerstone of its Digital India programme organise workshops, where bankers and other stakeholders are invited. These entrepreneurs explain various modes of electronic payments to rural citizens.

According to the information provided by the Ministry of Electronics and Information Technology (MeitY), as on December 28, a total of 1.05 crore citizens in rural areas of the country had been brought on-board various digital payment tools during the period, of which the biggest chunk 30.34 lakh were on Paytm. Among the 2.98 lakh merchants enrolled, 82,746 merchants in rural areas enabled under the scheme to use digital payment tools were on Paytm wallet.

According to the format, the village level entrepreneurs, while registering merchants under the programme, have to conduct transaction verification. Under this verification process, as per the manual on the programme's website, the entrepreneur transfers Re 1 to the merchant, and the merchant then transfers the Re 1 back to the entrepreneur. Interestingly, while the manual has listed the bank account details for net-banking or USSD transaction, and a phone number for wallet transactions, it shows the QR code option only for Paytm. After Paytm, among the rural consumers, the State Bank of India's wallet SBI Buddy was the second most enrolled tool at 19.58 lakh beneficiaries.

Even as wallets were the biggest draw among the target audience over 60 per cent of the rural citizens who enrolled for digital payments under the scheme preferred e-wallets, while the combined adoption of UPI and USSD stood at 20 per cent followed by net banking options at 10 per cent all the other non-bank wallets such as FreeCharge, MobiKwik, Oxigen, Airtel Money, Vodafone m-Pesa, cumulatively had 21.99 lakh users registered on their platform under this scheme, much lower than the 30.34 lakh on Paytm. The government's own Aadhaar Enabled Payment System (AEPS) recorded just 3.71 lakh users. The trend in the merchants registered through DigiDhan Abhiyan was also similar. More than 75 per cent adopted mobile wallets, while UPI and USSD comprised 13 per cent share of adoption. The points of sale (PoS) used for making debit and credit card payments saw relatively lower adoption with only 74,581, or 0.71 per cent, users, and 1,071, or 0.36 per cent, merchants enrolling with this option.

6. Prospects and the road ahead in Rural India

1. The Jan Dhan Aadhaar Mobile (JAM) can encourage digital transaction culture. It is spreading to reach each remote corner of the country. A large number of government transfers (DBT) are made through JAM mode. This will help people to get digital transaction awareness.
2. The role of the government in these cases will be to make cashless transactions mandatory for certain payments and make it mandatory for certain services exceeding a certain amount which has already been initiated.

3. A tax rebate (of say 1% to 2%) on payments made by households as salary to unorganised sector (domestic servants, sweepers etc) can boost cashless payments. This will do two things, one the households will have an incentive to go cashless and two; large portion of the unorganised sector will be financially included.
4. The 5 A's of promoting financial inclusion through cashless payment instruments which are availability, accessibility, acceptability, affordability and awareness.
5. Government should assure basic necessities in rural areas and focus on developing infrastructure. Special drives through schools, colleges, panchayats etc can help create awareness about cashless/ banking transactions.
6. Financial literacy is a must for bringing more and more people to the digital platform. Digital payment or payment through banks, instead of paying cash should be encouraged.
7. Linkage of all welfare activities with bank accounts is a very strategic step. A strong banking base is the basic prerequisite for the cashless economy.
8. Targeted financial education programs can improve financial skills and Credit Management, and increase account ownership in rural India.

7. Problems of Digital Payments in Rural India

These are the problems that may occur in rural areas if digital payments system is applied in India.

1. Electricity is not provided to all the villages.
2. Quality electricity to be provided to villages
3. Digital cable is not covered to the whole of India.
4. Villagers may not be able to purchase smart phones or laptops
5. Operations of accounts, conducting transactions through mobiles and to make online payments need training.
6. ATM centres to be provided at least at a distance of 3 kms for easy access.
7. At present there are 480 accounts for every 1000 adults. This need rectification and covers the entire adult population.
8. There are only 40000 banks for six lakh villages. At least one bank for every 5000 adults are to be provided.
9. There are 712 million debit cards in circulation. At present these cards are used on an average only 12 times a year in ATM counters and two times a year at the point of sale. It is very low and need improvement.
10. The above mentioned factors of provision of quality electricity, providing digital connection, banking facility, education to operate smart phones etc., need address before implementation of cashless transactions or digital payments system.

8. Challenges of Digital Payment in Rural India

In November 8th 2016 central government has taken important step to demonetization of Rs.500 and Rs.1000 currency. But in the rural India where cash was the kind, the options of digital payments were exercised by very few retail outlets and also the consumers were wary of using such trends. After November 8th 2016, some changes took place in Indian economy; it was process of digital payments system. significant developments

has taken place in the digital payments and many mobile wallet companies, PoS service providers, e-commerce players, and government initiatives has been focusing on improving the digital payment solutions. But some of the importance challenges of digital payments system in India are as follows:

1. Most of the Indian people buying goods and services only for cash based transaction habits in rural area; they need not go digital payments system either through using debit card or credit card or ETGS or any other. As for decades India has been a cash based economy.
2. Awareness programme would be conducted in rural area about using the digital payments like Smartphone based transactions, feature phone based transactions, usage of credit or debit cards at PoS solutions etc are some of the key important challenges.
3. The other important issue of digital payments is the lack of technology used in the rural people and also reach of technology to various locations. Though, it is being sounded that every corner of India shall have ICT services in place, still in many of the locations where the installations were complete, services are not available for the customers.
4. ATM use is mainly for cash withdrawals and not for settling online transactions: Nearly 92% of ATM cards are used for cash withdrawals. Multiple holding of cards in urban and semi urban areas show low rural penetration.
5. Limited availability of point of sale terminals: Most of the POS terminals remain in urban / semi urban areas.
6. Mobile Internet penetration remains weak in rural India: In India there is poor connectivity in rural areas. Lower literacy level in poor and rural parts of the country makes it problematic to push the use of plastic money on a wider scale.
7. Currency denominated economy: High level of cash circulation in India. Cash in circulation amounts to around 13% of India's GDP.
8. In customer point of view, lack of awareness of the customer, still the challenge of gaining the trust of customers is one of the key challenges facing the mobile wallents, digital transaction service providers like banks, fin-tech companies etc.
9. Other point of customer view, the cost of transactions that are levied over the customer is also a major concern. For example, over every debit card transaction, some retailers are charging the transaction cost from customers and it is additional burden. To ensure that debit and credit cards are used prevalently, such transaction charges have to be evaded.

9. Suggestions

1. The self help groups (SHGs) can be of great help to the people in the promotion of digital banking systems in the rural areas. More and more SHGs must be given the charge of Bank Mitras (friend) who can extend their help to the bank, post offices and Bank corresponding for proliferation of digital economy.
2. Rural social infrastructure such as Youth Clubs and Mahila Mandals and Panchayati Raj Institutions should be energized for the propagation of digital rural economy.

3. The Gram Sabhas in Panchayati Raj Institutions and Ward Sabhas in ULBs must take up the issue of digital economy at the village level.
4. All the line department functionaries such as school teachers, health workers, village Development officers, anganwadi workers, etc. must educate the people about the financial inclusion and digital economy
5. Like Pulse Polio Campaign, the Digital India Campaign twice or thrice in a year in a mass scale can be conducted in the country. It is an appropriate way to propagate the digital India campaign both in rural as well as urban areas.

10. Conclusion

Technology systems, architecture and infrastructure are mature enough to enable the billion urban people in India to transact digitally. It is now a matter of increasing awareness transact to rural India. The Niti Aayog panel on e-payments which is working to promote the use of digital payments systems in rural India, where card based payments are more common in rural area. The Indian economy will digitalise in rural area through mobile based payments that are faster and cheaper to roll out. It is a matter of increasing awareness in rural area. Improved solutions in terms of UPIs, mobile wallets, and digital transactions with more secured features, ease of transactions and reduced cost of managing the digital payments could lead to more potential developments and supporting in improved conditions of digital payments processing in rural sectors. However, National Payments Corporation of India (NPCI) new payment application are designed to work on all phones with or without internet and even without phones is helping rural India.

11. Managerial Implication

The payment system in any country needs to pass the litmus test of safety, security, soundness, efficiency, and accessibility. In order to address all these, payment systems have evolved from barter to currency, to digital systems. We are witnessing enormous change in the payment systems, disrupting the monopoly of physical/paper-based system by electronic ones. In terms of capitalizing on the opportunities, it is very essential that the solutions has to be more robust and following are certain key policies that to be in force for effectively implementing the digital payment solutions across the rural sectors.

- Reduce the transaction charges over the digital payments and discourage cash transactions.
- Emphasis on integrated system of digital payments that can reduce the existing challenges and support in quality outcome for instance, ensuring more stringent laws for security breach, IT Act for digital payment transactions etc.
- ICT infrastructure plays a vital role in successful adaptation of digital payments and hence there is intrinsic need to improve and offer requisite infrastructure for digital payments.
- Ease the complexities and enable end of day settlement process for the merchants as small retailers and merchants need rotation of cash flow in quick turnaround time for their business operations.

- Reducing the digital divide and increasing the awareness in the rural public.

The aforesaid factors are key developments that could be more effective for enabling more digital payments taking place in the rural sectors

12. Limitation of the study and Scope for further Research

Digital payments in rural India have very importance recent year. The scope will cover listed number of payments under the coverage of digital payments only. it is found that in countries where digital payments has been implemented had positive impact on their economies. The study is based entirely on analysis of secondary data, and as such, all limitations inherent to the primary data directly affect the reliability secondary data. The limitation of conducting research very small business, we cannot need to settings limits the reliability of the collected data. Furthermore, there is a time lag between the collection of data and its subsequent analysis for the purpose of this study.

The modalities of digital payments are at nascent stages and there is considerable need for more effective laws, guidelines, and compliance trends that can support in improving the process. Supply of PoS solutions in the market, leverage of technology, ease of compliance terms is also essential in encouraging more retailers, merchants and professionals. If the above issues are addressed in an effective manner, certainly the outcome can be more resourceful in improving the effectiveness of digital payments in the rural economy and attaining the objective of digital and cashless economy.

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