

Digital Payment Vortex of India: A Cul-de-sac for the Poor?

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Abstract

For financial inclusion and support in the rural areas, the way forward to reaching our country's objectives and goals is the difficult step of introducing electronic payment systems. This is the right time to take corrective measures and make a successful beginning among the rural population to reach these goals; information, communication, and technology departments are now available, and with the help of monetary policies, rural sectors can have the desired and required infrastructure. After building the necessary infrastructure, these sectors can offer well-functioning, reliable services and facilities. The ability to build an ICT infrastructure not only stabilizes the urban sectors, but also opens up opportunities for rural sectors in terms of agriculture, education, health facility, emergency services, and a better understanding of the payment system. This can be achieved if the nation truly wants to and makes the effort.

Keywords: Rural Sector, Payment System, Infrastructure, ICT, Financial Support

Introduction

Nowadays people are trying to move away from the practice of carrying cash for purchasing high- or low-end goods. E-commerce payments have taken over mostly in metropolitan or urban areas. This involves an online mode of payment.

Internet transactions in e-commerce payments are preferred in every field, whether it is shopping online or making banking transactions; this has also evolved into Payment Wallets, which has made it easy to access from devices like mobilephones, laptops or tablets. With the help of Payment Wallets, one is able to keep track of each transaction. All transactions, when made through the

Mobile Wallet, represents an application, which includes wallets like PhonePe, GooglePay, Paytm, and so on.

Mobile wallets in India, according to a research study adopted by ASSOCHAM and RNCOS firm, are expected to grow by a staggering 190% by the year 2022. Mobile wallets within the last five years have gained enormous limelight and have reached about \$9 billion by the adoption of multiple digital tools such as Unified Payment Interface (UPI), mobile wallets like Paytm, Google Pay, Mobikwik, and so on. As per data from IMAI (Internet and Mobile Association of India), there are more than 371 million mobile Internet subscribers throughout the nation, and the numbers are expected to grow to 67% throughout the nation post-2020, as per reports of ASSOCHAM.

A majority of Indians have grown attached to mobile wallets and have levitated toward them as they offer additional discounts in the form of coupons. These discounts can be availed through offline stores as well. Table 1 shows the growing payment wallets in India and their giant tie-ups.

Table 1

E-WALLET	TIE-UPS
Paytm	IRCTC, APEPDCL, OLA Cabs, Food panda, DMRC, etc.
Free Charge	Book my Show, IRCTC, Mumbai Metro, etc.
ICICI pocket	Provogue, Dominos, McDonalds, etc.
Oxygen	eBay, KFC, Go Ibibo, etc.
Mobikwik	Big Basket, Café Coffee Day, Myntra, Shop Clues, Pepper Fry, etc.

There are three types of mobile wallets: *Open*, *Closed*, and *Semi-closed*. We will briefly list their distinct characteristics.

- Open Wallets are used to purchase goods and services, for example, Vodafone's M-pesa, as well

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as avail financial services and withdraw cash from banks or ATMs.

- Closed Wallets are those that have been issued this instrument, allowing a particular sect to buy goods and services, and avail those services.
- Semi-closed Wallets are those that allow such services only from hand-picked merchants; in such wallets cash withdrawal facilities are absent. For example, SBI Buddy.

Benefits of Mobile Wallets

Convenience

Consumers can simply purchase things with a single click; it brings ease and satisfaction to them.

Modern and Competitive Advantage

They provide a more technological kick to the market, as well as being an entirely novel concept, bringing many modern business opportunities and a huge change in revenue.

Cost-efficient

Purchasing power has increased without the requirement of cash transactions and by the simple tapping on devices; this has reduced transaction cost of business.

When we shift our focus from urban areas to rural areas, these online and digital transactions become a hurdle due to a lack of knowledge and understanding of the payments made using digital platforms. So, to serve the rural crowds, there are a few methods and ways that help people in remote areas receive and make payments. One is a micro-ATM, a handheld device, which costs far less to set up than a regular ATM and allows the customer to make a range of transactions and transfers as well as withdrawals.

Rural India lags behind the urban areas not just because of sparse access to the Internet, but also because Internet access for online financial and digital transactions are difficult due to lack of electricity and poor network quality. The main cause is the unavailability of electricity in rural areas due to which people are not able to charge their

devices, and the poor network quality keeps them away from availing Internet Services Pack on their electronic devices.

To conclude, cash is an important part of the rural economy and any interest toward initializing online payments must take into account the usage and need of cash in rural areas, and also the importance of including people in rural areas for the growth of the economy.

Information and Communication Technology and its Impact on the Rural Sector

In every field, Information and Communication Technology have played a major role. It is a remarkable potential in itself; it also guards the various sectors of rural areas, such as agriculture. ICT addresses various arrays like virtual trading, prices, and so on, improving communication systems that further lubricate the process for farmers and make them acquainted with the challenges and opportunities in the market. The need and idea of modernizing the rural sector in India were identified and witnessed in 2003 and 2005 during the World Summit on the Information Society, and ever since, various corporate sectors, government, and private entities have started working on this interest.

Moreover, the crucial element toward ensuring development in rural sectors is “marketing” of the products. Using ICT provides efficient accessibility to the market, improves communication, and reduces business costs. However, most of the countries promoting ICT for rural sectors face synonymous problems like lack of information, and inadequate expertise, infrastructure and support, for marketing. Therefore, adaptation and dissemination of technology is of paramount importance to increase the penetration of ICT from urban to rural areas.

Electronic Payment System: What is it?

In the current scenario, daily activities of most consumers depend on mobile technology.

Commerce and technology have created a strong impact on lives by proffering tremendous services, furthering purchase of goods at a strong, tractable and accessible speed. The decision of demonetization by the Indian Government in the year 2016 created a momentary blow

to the financial array, causing a swing toward accepting and using of “mobile payments” by all classes and age groups.

Mobile Payments are fundamentally those made through e-wallets, NFC, SMS-based methods, and so on, and the period post-demonetization made the payment service providers a subject of prominence. Moreover, for the secluded rural areas, organizations like International Finance Corporation, Bill & Melinda Gates Foundation, and standard organizations like Groupe Speciale Mobile Association provide alternatives to enable the people to gain financial stability and resources, despite their lack of mobility.

In addition, the ICT systems are grouped into a single category, which includes communication systems, appliances, and the various resources. In this regard, the rural sectors require economic and social betterment plus the infrastructure to solve certain problems like poverty, ignorance, and inequality in every aspect of the decisions taking place in the world.

More development of ICT in the rural sectors can lead to a better and peaceful life, which has a positive effect on socio-economic development. Thus, work can be concentrated in providing services like health facilities, education, hospitality, agriculture, emergency responses, and so on.

Collins, Duncombe and Rutherford were researchers who claimed that there is a positive impact of mobile phone technology on poverty alleviation, as it enabled smaller deposits of money, irrespective of the remoteness. “Higher the savings lower the poverty.” Such practices were correspondingly treating alleviation of poverty, circumventing risks of theft or impulsive expenditure.

Existing platforms balance the amount of money stored as identification associated with the SIM CARD and the network operator (MNO), and individuals have to log in to their accounts each time they want to make a transfer. The process of money transfer and conversion of the same thing at the receiving end to material money (cash in or cash out) has its own set of challenges too. For instance, rural areas fall short of availability of SMS services, creating liquidity problems.

Moreover, various researches have revealed that the architectures or infrastructures in matters of digitized money are mostly in developed nations only. They

presume that all customers are literate. And if we shed light on rural areas, whenever they desire to use or avail themselves of such e-facilities, they have to depend on a third person for assistance, and cannot freely engage in their daily cash-based routine.

Dealing with the Problems

Rural areas have to deal with various problems in the Indian Economy, whether it is regarding the knowledge, understanding, or working experience of digitalization or infrastructure in terms of online and offline modes. Due to these problems, it becomes a major challenge for people in rural areas to shift their focus toward online transactions and payments.

Safekeeping – People in rural areas feel insecure when it comes to payments made online; they feel that they cannot trust the channel, medium or source through which online payments are made. This feeling of insecurity is because they do not have knowledge or experience regarding the digital world.

Habit – People in rural areas have, until recently, dealt only with cash whether its for personal use or business payments. They feel that this is a perfect and easy method which does not cause any miscommunication or problems.

Clarity – In the case of digital payments, there might be various extra charges, like Internet handling charges, which is not the case with cash dealings, thus making cash transactions easy and comfortable to use.

Widespread – Cash is a mode of payment which is accepted everywhere, whereas digital payments are not, which in turn is a positive for people in rural areas, helping them to, therefore, place their trust more on traditional payment methods rather than digital ones.

Resistance – Cash is an immediate, fast and trusted mode of payment. It helps people in rural areas show off their wealth and power in society with the ease of availability and exchange of cash.

Literature Review

Ali, Akhtar and Safiuddin (2017) studied the various challenges associated with digital payments in the context of rural India. They found that India is one of the fastest and emerging growing sectors in the economy, in the case of sustainable, economic development. The developments

would, however, be marked as more practical only if rural India moves toward digital payments and transactions. Like mobile wallets, UPIs, Internet Service Providers, and the lower cost of maintaining digital payments would help in infrastructural development and improve conditions in rural sectors. The ICT infrastructure, which includes all the hardware and software of the services, helps in adaptation of digital payments for the economic progress of the country.

Balaji and Vijayakumar (2018) studied the diffusion of the digital payment system in rural India. Their research study was done to determine the needs and benefits of digital payments and its influence in the rural sectors. The study was conducted at a convenient Sampling Survey in some rural parts of Southern India, with a selected number of respondents. Also, with this study, they were able to find out that the government has also led and driven the focus on introducing digitization in major parts of the ecosystem, expanding mindfulness in rural sectors, with various potential improvements and arrangements related to mobile payments, UPIs, and so on, in rural sectors.

Singh and Rana (2017) presented a study on consumer perception of digital payment modes. In today's time, there has been a sudden increase in Internet services and online devices in India, which helps in the success of digital payments. The use of Internet banking or mobile banking has currently led to POS (Point of Sale) for services and products online. Consumer perception has a significant and decent role in the adoption of digital payment methods. All demographic and geographic growth of users, whether in urban or rural areas, has led to an increased Internet penetration.

Singh and Kumar (2009) conducted the study on Rural Consumers and their need for awareness. This is because the focus of rural sectors is more on the exchange of goods rather than the current trends and preferences of the world. Due to less awareness, the manufacturers are not concerned with quality of service because people living in rural areas are not educated and are easily exploited. This study explores the various rights of the rural people in terms of every aspect of life.

Mansell (2012) studied Science & Technology in concept of the "Mobile Phones" for the challenges of Capability Building with the huge number of services whether in communication or technology sector makes the use of a mobile phone supported by the urban and rural population of the country. Also, individuals need to understand the

functional uses, communication along with engagement, and social networking, followed by content creation and interaction.

Deshpande and Sambhe (2015) conducted a study on the ICT needs of Rural India, which defines that rural economy is the sector which is always in the underdeveloped part of the country in socio-economic projects. The first thing toward understanding and learning is "Education" through which the implementation of "ICT Infrastructure" can be done in rural sectors. Rural areas are much more forward in many aspects of work, be it agriculture, improving the standard of living, women empowerment, and so on. The Indian industry has seen various revolutions. However, these have led to the success of only urban India.

Yadav and Ramesh (2019) conducted a study on the Indian Rural Customer's Risk Perception of Electronic Payment System, concluding that the reason for risk among the rural people is the lack of knowledge and understanding in using online payments. As a result of this, they prefer cash transactions most of the time as they consider it to be safe from any misleadings. Also, people find that they do not have strong communication skills or understanding to follow the steps to make online payments. So, they consider "Cashless Market" an important factor in performing all the transactions.

Rajesh Balan, Narayan Ramasubhhu, and Giri (2006) identified, analyzed, and studied Singapore's digital wallets, and the key challenges faced in adoption and building an e-wallet payment system throughout the nation.

Rai, Ashok, Chakraborty, Arolker and Gajera (2012) explained the key reason for customers' preference of mobile wallets over traditional cash-based system from a safety and security point of view.

Rakesh and Ramya (2014) in "A Study on Factors Influencing Consumer Adoption of Internet Banking in India" stated reasons that boost net banking options in India, explaining that they are mainly driven by its apex reliability, laying emphasis on the growing need of awareness to attract consumers' attention toward availing these services.

Nitsure (2014) analyzed developing countries in the adoption of the e-wallet and banking, like in India, and stated problems associated with it, such as regulations, rules, and so on, and linked these rules to demerits, presenting a visible line of demarcation or split between

rural and urban areas, excluding the former from availing these services.

Sangita and Indrajit (2014) stated tremendous growth in the Indian payment system, highlighting the need to work in this purview, as 90 per cent of transactions are still cash-based. They highlighted that to strengthen the e-wallet system, innovation, a convenient system for customers, a strong legal framework, and lucrative incentives are the need of the hour.

Case-Study of the Philippines

Over last few decades, the Govt. of Philippines stemmed various cashless transaction initiatives in parity with private sectors to address their economic deficiencies and their heavy reliance on remittances. Our study will be on the Philippines' cashless payment industry and the way they coordinated efforts to address limitations in their financial system through the help of a central bank, BSP, and various private sector entities.

Current Scenario

In recent years, there has been an upward surge in the Philippines. The reason for this is the country's growing tourism industry, citizenry, and popularity of online transactions and payment system; the Philippines' unique economic structure and its huge dependence on remittances spearheaded the techniques of cashless payment(s).

The Philippines, which is a cluster of 2,000 inhabited islands, has an uneven access to banks, which led to a visible but sharp distinction between urban and rural areas. According to the World Bank (Table 2), only about 40% have access to bank accounts. Only cashless payment techniques and facilities can break down these barriers within this cluster, where money may be transferred throughout the globe, and even to remote areas in the Philippines.

Table 2

Country	Account Ownership	Bank Branches (per 100,000)
Philippines	42	8.6
Malaysia	66	11.3
Indonesia	20	10.4
China	64	7.9

Some families can buy basic amenities because of emerging e-wallet and cashless payment systems, and they

can bridge the gap financially between the excluded and included section of society. The BSP has made major efforts on this point. It has worked closely with private entities and government agencies to create an environment that enables the creation and implementation of such technology and solutions. Consequently, in 2015, the BSP launched the National Safety for Financial Inclusions, aiming to bring into light the importance and need for technology and other gateways to the needful, i.e., the rural sector.

Despite all the efforts, 35% of the population in the Philippines still transact exclusively in cash as per the Philippine Statistics Authority's report of 2015. However, acknowledgement is necessary from the other sections, giving a necessary response to the structural deficiencies of this above-mentioned demarcation. There is, however, a dearth of research and academic analysis regarding issues faced and challenges tackled by the Philippines in its battle to become a cashless economy. Persistent mistrust of the cashless system and financial institutions, infrastructural challenges, and lack of active knowledge among the urban as well as rural populace regarding these tools, will always create hurdles on the march toward the progression of cashless gateways.

The Philippines' Portrait of the Payment System

In recent years, the country has seen an upsurge in bank branches and a subsequent increase in the number of ATMs and terminals of POS, giving rise to the use of cashless modes of payment. It has been recorded (2015) that the number of ATM machines has increased by 86%, as per Euromonitor International in the period 2010-2015. Despite these evolutionary stakeholders, there has been just a minute space for development as evident from the statistics of Singapore, which is comparatively smaller than the Philippines, having twice as many ATMs per one-lakh citizens. In addition, to overcome such a gap and shortcoming, *BancNet* collaborated with ten other banks with respect to reaching the rural sectors, including Development Bank of Philippines, as well as Philippines' Landbank, to establish bank branches of ATM machines throughout the country.

Fin-Cards

The growing populace and need for online shopping have increased the use of financial cards. In urban areas,

debit or credit cards are flourishing, and debit cards are much handier compared to credit cards, given their easy accessibility. Therefore, in the Philippines debit cards are highlighted as functionally growing by 20%, as per Euromonitor International, from 2014-2015.

Novel Payment System

There is going to be a new payment system in the Philippines, named National Retail Payment System (NRPS), and to implement it, the BSP is partnering up

with the US Agency for International Development by 2018-2020.

Its primary aim is to broaden the financial operability, and its interdependence and respective accountability.

Over the years, the Philippines has played an inspirational role in pioneering and developing mobile financial services, allowing large-scale transmission from urban to remote areas, disallowing the need for physical remittance and employees to facilitate every transfer or transaction.

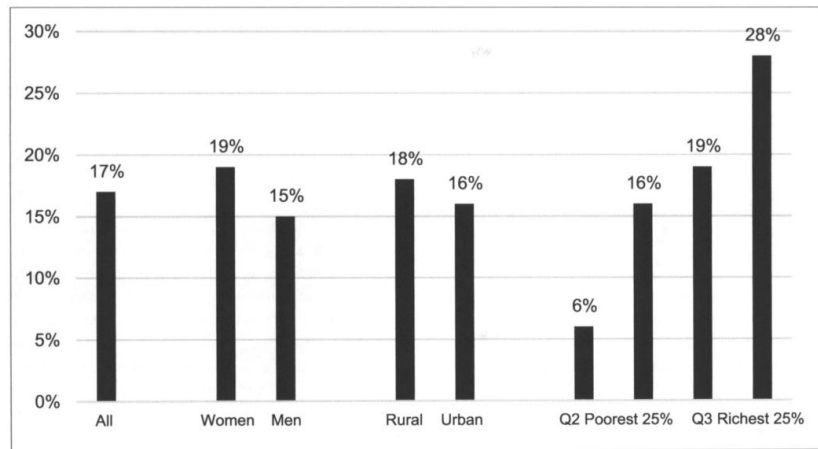


Fig. 1: Mobile Banking Statistics

This study can be concluded with the finding that adoption of a cashless mode of transfer or e-wallet technology requires persistency from banks and the much-needed private sector’s adherence to financial awareness and a sense of faith and belonging to the system. The Philippines’ problems or issues regarding less remittance to rural areas can be linked to the dearth of sufficient infrastructure and feeble integral abilities in the society. Ultimately, the BSP should and must attempt to unify and integrate both private and public entities and sectors, under the vision of paramount stability. Structural challenges must be addressed and a solution for cashless transactions in favor of rural gentry must be found.

Case-Study of Gujarat

This case study will delve into Gujarat, the first 100% cashless state, consisting of 5,000 residents and more floating population, under the heading “Digital India Program” in 2016. Moreover, many villages have adopted the format to become digitized.

This case study is based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model.

Their framework indicators explain the intentions of users to employ a system, and their behavior toward it. As per this model, the following are the three stakes:

- benefit provided to the end-consumer to perform certain activities
- ease of performing activities with the use of technology, and
- social influence of technology among the users.

However, ease of use as well as attitude toward it affects the whole system, and cultural factors play a key role in the adoption of foreign technology, such as going cashless, in rural areas. Economies around the world who successfully adopted electronic payment systems believe that digital payment systems are sustainable, cheaper, efficient, and more accessible to people vis-à-vis boosting revenue as well.

Objective

The objective of this present research is:

- To identify the various methods of payment used by people living in rural areas.

- To study the use of digital payment services/applications in rural areas.
- To explore the various reasons for the poor acceptance of digital payments in rural areas.
- To propose suggestions to improve the use of digital payments in rural areas.

Significance of the Study

The performance of payment and digital wallets in India, with reference to rural areas, depends on improvements made to the infrastructure, which will help the economy. In addition, imparting knowledge, and helping educate the people in rural areas will help them adopt digital payments and technology.

- *Convenience* – Pay from anywhere in the world when you have good access to the Internet and sound knowledge of technology.
- *Detailed Records* – It always helps to have records for the future in the form of text messages and emails.
- *Security* – In the event of fraud, it is easy to get in touch with your bank and make a claim.

References

- Ali, S., Akhtar, W., & Safiuddin, S. (2017). Digital payments – A challenge for rural India. *Journal of Management and Applied Science*, 3(6), 1-6.
- Balaji, P., & Vijayakumar. (2018). Diffusion of digital payment system in rural India. *Journal of Management and Business Research*, 18(4), 2-5.
- Doan, N. (2014). Adoption of digital wallet by consumers. Retrieved from www.google.com
- Finextra. (2016, January 12). NTrust opens mobile money platform to the Philippines.
- Go Cashless: Digital Wallets, NEFT, IMPS, UPI, Debit Cards, Credit Cards. Retrieved from <https://www.bemoneyaware.com/blog/cashless-digital-wallets-neft-imps-upi-debit-cards/>
- Gomez, C. P. (2015, February 10). 4Ps beneficiaries pawn cash cards. Retrieved from <https://newsinfo.inquirer.net/671741/4ps-beneficiaries-pawn-cash-cards>
- Gowda, K. R., & Gopalakrishna, K. S. (2018). Rural consumer purchase behaviour towards mobile phone with special reference to Madhya Pradesh. *Journal of Rural and Industrial Development*, 6(1), 18-30.
- Gregory, J. G. (2014). Hotels & restaurants dabble in mobile payments. Retrieved from <http://hospitalitytechnology.edgl.com/news/Hotels---Restaurants-Dabble-in-MobilePayment91371>
- GSMA Intelligence. (2014). *Country overview: Philippines growth through innovation*. London: GSMA.
- GSMA. (2015). *Mobile money in the Philippines: The market, the models and regulation*. London: GSMA.
- <http://timesofindia.indiatimes.com/business/india-business/400-1000-increase-in-digital-transactions-afterdemonetization-says-government/articleshow/55897291.cms>
- Ken Research. (2015, October). Philippines domestic and international money transfer industry outlook to 2019: Driven by mobile money and increase in OFWs. Retrieved from <https://www.newswire.com/press-release/philippines-domestic-and-international-money-transfer-industry>
- Kumar, A., & Seri, S. P. (2014). White paper banking on the mobile wallet – Infosys. Retrieved from <https://www.infosys.com/.../white-papers/.../banking-mobile-wallet.pdf>
- Oxfam. (2015, May). *Oxfam and visa team up for an innovative payment solution for disaster – Affected communities*. Oxford: Oxfam International.
- Padashetty, D. S., & Kishore, K. S. (2013). An empirical study on consumer adoption of mobile payments in Bangalore city – A case study. *Researchers World*, 4(1), 83-94.
- Philippine Star. (2015, July). *Head to head with rival, uber enables cash payments*.
- Philippine Statistics Authority. (2015). *Statistical database: Employment and labour statistics*. Manila: Philippine Statistics Authority.
- Post Demonetization, Which Digital Payment To Use? Retrieved April, May, 2020, from <http://mfsys.com.pk/post-demonetisation-which-digitalpayment-method-to-use/>
- Rathore, H. S. (2016). Adoption of digital wallet by consumers. *BVIMSR's Journal of Management Research*, 8(1), 69-75.
- Roy, S., & Sinha, I. (2014). Determinants of customers acceptance of electronic payment system in Indian banking sector – A study. *International Journal of Scientific & Engineering Research*, 4(1), 177-187.

- Sinha, S. (2015). RBI norms to facilitate e-commerce. Retrieved from <https://economictimes.indiatimes.com/news/economy/policy/rbi-norms-to-facilitate-ecommerce/article.show/49102033.cms>
- Torres, T. (2015, December 27). *Third highest worldwide, OFW remittances seen to hit \$29.7 B in 2015*. Philippine Star.
- Tovar, M. E. L., Zarate, A. O. de., Pavón, L. I., & Tacujan, P. A. (2014). Financial inclusion, mobile banking, and remittances in Mexico and the Philippines. *Journal of Political Risk*, 2(1).
- US AID. (n.d.). Factsheet: E-Peso. Retrieved from <https://www.usaid.gov/philippines/partnership-growth-pfg/e-peso-activity>
- Visa. (2015). Strong appetite for shops that accept contactless payments over those that do not. Retrieved May 5, 2020, from http://www.visa.com.ph/aboutvisa/mediacenter/NR_PH_130115.html
- World Bank. (2015, July). *Enhancing financial capability and inclusion in the Philippines: A demand-side assessment*. Washington, D.C.: World Bank.