

Adoption and Effect of Modern Payment System Development in India: A Study of Retail Digital Payment in Bilaspur Division of Chhattisgarh

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Abstract

India is the second-largest nation in the world, with 1.3 billion individuals, or about 18% of the world's populace. A long-term approach in the system of a digital payment is needed to accommodate rising population's demands for monetary services. Digital payment offers suitability, transactional ease, privacy. This investigative study emphasizes on the expansion of digital payments from 2012–2013 to 2018–2019 in relations of operation size and worth. Conferring to the research, aggregate digital payments have augmented in size (24.11%) and worth (15.84%) over the past few years all over the country. Additionally, in 2020–2021, the country is projected to make 28,000 lakh dealings worth more than INR 15,20,000 billion in digital payments.

Keywords: Payment & Clearing scheme, Digital Payment, Retail payment, Cashless budget

Introduction

Through the aid of advanced technology, the Indian banking system is constantly changing to make doing business online for clients simpler, safer, easier to access, and increasingly individualized. Additionally, it is getting more quick and effective. Accountability and openness have increased as a result of the growth and modernisation of the payment system, which has also lowered the cost of transactions and the scope of the casual budget. Additionally, it has decreased general dishonesty and accelerated financial development, particularly in rural India. Over past thirty years, India's financial industry has undergone a number of important reforms. The 1990s saw an increase in the importance of deregulation, rivalry, and the acceptance of global finest follows, which led to transformation to financial services. With its article on Payment Systems in India published in 1998, the Reserve Bank of India (RBI) outlined its goals then presented a roadmap for the fusion, expansion, and amalgamation of the nation's payment systems. Additionally, the Payment and Settlement Systems Act was put into effect in 2007 with the aim of safeguarding that the nation's payment and settlement system is safe, secure, sound, efficient, accessible, and approved.

The RBI as long as a plan of action to safeguard assistances of an organized contemporary payment and settlement system, such as novel goods, to reach above the presently served target groups, which will promote a greater level of financial inclusion (Vision Document 2012-15). This was done after acquisition optimistic involvement in the payments system throughout diverse apparition eras. Government of India introduced the leading

inventiveness "Digital India" in 2015 with the goal of altering India into a knowledge-based civilization and budget. One aspect of Digital India's role is to enable "Faceless, Paperless, Cashless" transactions. The introduction of new and innovative technologies, the notable transition from paper to electronic payment modalities, the considerable growth in transaction turnover, customer-centric initiatives, international recognition, etc. are some of the good effects of the advancements between 2015 and 2018. Demonetization of high-denomination currency notes in 2016 and the adoption of Goods and Services Tax legislation in 2017 are two more government initiatives that have boosted digital usage.

Review of Literature

Rajat Deb (2020) looked on how household financial patterns compared prior to and following the advent of mobile apps. The present research found that utilizing mobile applications boosted financial and financial decisions by nearly 50% over the prior period.

In the research they conducted, Ravikumar et al. (2019) looked at how digital payments impact real Gross Domestic Product (GDP), an indicator of growth in the economy. The researchers claim that only retail electronic transactions significantly enhance real GDP in the near term among all other forms of digital payment, but over the long term, retail digital payment virtually no impact on real GDP. Furthermore, over the course of time, neither general digital payments nor retail electronic payments will significantly influence India's economic expansion.

In the words of Richard Reisman (2019), the largest challenge for customers and enterprises based on digital media is affordability. The writer made note of the ongoing "FairPay" game among sellers and buyers. Furthermore, Fairpay is a novel method of problem-solving since it enhances the current Business to Consumer (B2C) marketplace.

The benefits and challenges of long-term acceptance and execution of distributed ledger technology (DLT) in the payments and settlements system were examined by David et al. in their 2018 paper. The research conducted led to the result that DLT may be utilized for managing identities, payments across borders, transfer of ownership of digital assets, immutable and safe storage of data, clearance and development, and other emerging procedures.

Jubair and Yakoob (2017) studied the uptake and knowledge of digital wallets in urban and rural areas in their descriptive and analytical study, which was released in 2017. This survey found that around 2/5 of people in both urban and rural regions were familiar of digital wallets, while urban areas were more inclined to accept and use these services than rural ones.

In the words of Shendge, Shelar, and Kapase (2017), when India adopts a cashless economy, there will be both good and bad impacts, but both of them may be ignored if the advantages of the former have been taken into consideration.

In the words of Padashetty and Krishna Kishore (2013), a perception of simplicity of use, trust, communication, as well as perceived value have all had an impact on the uptake of digital payment systems, especially mobile payments.

Hasan et al. (2012) examine the connection among retail payments and general growth in the economy in the European area from 1995 to 2009 in their study. The research presented here finds that moving to electronic retail payments encourages trade, intake, and growth in the economy as a whole. Among the many retail payment options, this relationship is greatest for card payments, then for credit transfers and direct debits.

Although developments in retail payments create the possibility of a society utilizing little to no cash, Papadopoulos (2007) agreed that those in electronic money (e-money) offer innovative solutions, increase simplicity, and reduce costs. Given its lengthy history of significance, cash remains the most affordable and most inconspicuous alternative for small-value payments.

Objectives of the study

- Finding out the general expansion of digital payments in India and
- Analyzing the variations in growth across various types of digital payments.

Research Methodology

This research examines the total development of numerical expenditures in India throughout the seven fiscal years from 2012–2013 to 2018–2019, as well as the development of a few selected categories. Mutually the size and the worth of connections for seven dissimilar constraints—RTGS customer transactions, CTS, IMPS, Debit and Credit Card, M-Wallet, and PPI Cards—have been considered in order to analyze the growth performance over the study period. The study's conclusions were reached using the mean, the compound growth rate (CGR), the coefficient of variation (CV), the annual growth rate (AGR), the straight line trend, the Kruskal Wallis χ^2 test, and the post-hoc comparison test.

Limitations of the Study

Only seven categories of digital payment methods were included in this study to gauge growth trends over the research period.

Discussions and Analysis

Overall Digital Payments Growth

Table 1 displays the total rise of digital payments in terms of transaction volume and value.

Table 1: *Overall Growth of Digital Payments in India*

Table 1 demonstrates that, both in regard to the the amount and value of operations, here is a progressively growing trend for digital payments in India on a yearly basis. A mean of 135,744 lakh activities per year (CV 45.82%) during the span of the research period generate digital payment worth INR 881,896.05 billion per year (CV 32.18%). Based on the compound growth rate for the research's from the years 2012-2013 to 2018-2019, the nation's electronic payment system has a volume growth rate of activities of 24.11% and a value growth rate of activities of 15.84%. Furthermore, with increases of 17.19 percent and 14.86 percent over the year 2018-2019, accordingly, it is forecast that the development of digital payments would reach close to 28,000 lakhs in terms of transaction volume and INR 1526,519 billion in terms of the value of transactions in 2020-2021. Between 2014–2015 and 2017–2018, the volume of electronic payments actually grew at a slower rate than was predicted. It has been moving increasing since 2018–19 (see Figure 1). The total growth rate of digital payment transactions in terms of transaction value was greater than expected in the years 2012–2013 and 2013–2014, but it has been increasing since 2017–2018 (see Figure 2).

Digital payments are expanding and moving across categories.

For the reference period from 2012–2013 to 2018–2019, Table 2 displays the average rise in volume and value of digital payment transactions for each category.

In accordance with Table 2, when speaking of volume of transactions, debit cards, M-Wallets, and credit card payments account for the biggest share of the mean growth rate of digital payments, whereas RTGS, CTS, and debit cards consideration for the most shares. In the last seven years, both the volume and value of electronic payments have increased. The CGR across all types of electronic payments demonstrates positive growth since both the number and the value of transactions involving digital payments rose in the nation from 2012–2013 to 2018–2019. IMPS and M-Wallet services saw the highest growth rates in terms of both features throughout the research period in relation to other subcategories of digital payment methods.

Growth in Transaction Volume Across Digital Payment Categories

The estimated value of the Kruskal Wallis test (χ^2 23.993**; $p < 0.01$; df 6) is statistically significant at the 1% level, according to Table 3. Consequently, the null hypothesis is disproved. It shows that the growth rates of transaction volume across the different types of digital payments varied significantly.

Differential Growth Rates in Transaction Volumes Across Types of Digital Payments

A post-hoc analysis has been done to examine the variations in growth performance during the study period across categories. Table 4 provides a more thorough illustration.

Growth Rate of Transaction Value Across Digital Payment Categories

A post-hoc analysis has been done to examine the variations in growth performance during the study period across categories. Table 5 provides a more thorough illustration.

The estimated value of the Kruskal Wallis test (χ^2 , 23.473**; $p < 0.01$; df 6) is statistically significant at the 1% level, according to Table 5. Consequently, the null hypothesis is disproved. It shows that the growth rates of transaction values across the different categories of digital payments vary significantly.

Important Findings Regarding the Difference in Growth Rate of Transaction Volume

- For the time frame in question, the increase percentages for the number of operations in RTGS and those in CTS, Debit card, Credit card, and PPI Cards are virtually same.
- RTGS volume of transactions increases differ significantly from those of M-Wallet and IMPS for the benchmark period.

- There has been a significant difference in the increase rates of volume of transactions for CTS, IMPS, and MWallet during the period in question.
- Compared to the rising rates of debit, credit, and PPI cards, there is little variation in the amount of payments processed by CTS.
- There is no appreciable difference in the growth rates of debit card transaction volumes and credit and PPI card transaction volumes during the reference period.
- The growth rates of the number of transactions done using a debit card, an M-Wallet, and an IMPS differ significantly during the reference period.
- For the reference period, the growth rates of credit cards, PPI Cards, M-Wallets, and IMPS are indistinguishable from one another.
- PPI Cards, M-Wallet, and IMPS all saw similar growth rates throughout the reference period.
- There is no noticeable difference in the growth rates of IMPS and M-wallet for the reference period.

Important Findings Regarding the Variation in Transaction Value Growth Rate

- For the reference period, the growth rates of the value of transactions in CTS and those in RTGS, Debit Cards, PPI Cards, and Credit Cards are not noticeably different.
- There is a significant difference in the growth rates of transaction values between CTS, M-Wallet, and IMPS during the reference period.
- For the reference period, the growth rates of the value of RTGS transactions and those of Debit Cards, PPI Cards, and Credit Cards are not noticeably different.
- The growth rates of RTGS transaction values and those of M-Wallet and IMPS differ significantly during the reference period.
- The growth rates of transaction values made using debit cards, PPI cards, and credit cards were all increasing at around the same rate for the reference period.
- The growth rates of credit card and debit card transaction values differ significantly during the reference period.
- There was no discernible difference between the growth rates of PPI Card transaction value and Credit Card transaction value during the reference period.
- The growth rates of the value of transactions made using PPI Cards and those made using M-Wallet, IMPS, and Credit Cards differ noticeably over the reference period.
- For the reference period, there is no appreciable difference between the increase rates of credit card transaction values and those of M-Wallet and IMPS.
- There is no appreciable distinction in the growth rates of the value of transactions in M-Wallet and IMPS for the reference period.

Conclusion

India's economic system is linked to every other economic system via digital payment networks. It is also simpler to buy goods and services (such as paying for energy bills and insurance premiums) and send money to friends, family, and business partners. Vendors can use it to receive money from consumers, while governments can use it to collect taxes and distribute social benefits. Digital payment transactions overall saw strong growth in both volume and value, with compound growth rates of 24.11% and 15.84%, respectively. The government's focus on ending the usage of cash in the economy has led to the development of a robust payment system in India that ensures efficiency and safety. It has led to unprecedented growth for IMPS, M-Wallet, and PPI Cards during the course of the research period, particularly in terms of volume and value metrics. For online payment systems, money

transfers, and digital payments, these channels have proven to be game-changers. Due to the affordability and practicality of digital financial transactions, the economy is quickly heading toward a cashless society.

References

- Cashless Society- Digital Payments, Demonetisation, etc. (n. d.). Retrieved from <http://www.civildaily.com/story/cashless-society>
- Debit Card transactions grew 140% year on year, in March 2017. (2017, May 11). Retrieved from <https://www.medianama.com/2017/05/223-india-29-8m-credit-cards-854-9m-debit-cards-march-2017/>
- Hasan, I., De Renzis, T., and Schmiedel, H., (2012). Retail Payments and Economic Growth. Bank of Finland Research Discussion Paper No. 19/2012
- Here are the top cashless countries in the world. (2016, November 30). Retrieved from <http://m.businesstoday.in/story/here-are-the-top-cashless-countries-in-the-world/1/241430.html>
- India's Digital Payments To Grow Three-Fold In 2017: MeitY. (2017, April 20). Retrieved from <http://googleweblight.com/i?u=http://www.bgr.in/news/indias-digital-payments-to-grow-three-fold-in-2017-meity/&hl=en-IN&tg=802&tk=shAgXHyn4TKs16h6>
- Jubair, T., and Yakoob, C., (2017). Acceptance of Digital Wallets in Kerala: An Empirical Study. *International Journal of Business and General Management*, Vol.6(3), pp.31-38
- Mills, David, Kathy Wang, Brendan Malone, Anjana Ravi, Jeff Marquardt, Clinton Chen, Anton Badev, Timothy Brezinski, Linda Fahy, Kimberley Liao, Vanessa Kar-genian, Max Ellithorpe, Wendy Ng, and Maria Baird (2018). Distributed ledger echnology in payments, clearing, and settlement. *NMIMS Management Review*, Vol. XXXVI(2), pp. 60-89
- Package for Promotion of Digital and Cashless India. (2016, December). Retrieved from <http://cashlessindia.gov.in/package-for-promotion-of-digital-and-cashless-economy.html>
- Padashetty, S., and Krishna Kishore, S.V., (2013). An Empirical Study on Consumer Adoption of Mobile Payments in Bangalore City - A Case Study. *Researchers World - Journal of Arts, Science & Commerce*, Vol. 4(1), pp.83-94.
- Papadopoulos, G., (2007). Electronic Money and the Possibility of a Cashless Society. Available at SSRN: <https://ssrn.com/abstract=982781>
- Parekh, R. (2016, December 02). 10 Best Cashless Payment methods. Retrieved from <http://moneyexcel.com/15775/10-best-cashless-payment-methods>
- Prashasti Awasthi (2020). 80% of older consumers to adopt digital payment in next 6 months: Available at <https://www.thehindubusinessline.com/money-and-banking/80-of-older-consumers-to-adopt-digital-payment-innext-6-months-study/article31557000.ece#>, Accessed on 11-05-2020
- Rajat Deb (2020). Influence of Mobile Apps on Household Saving-Spending Behaviour. *NMIMS Management Review*, Vol. XXXVIII(2), pp. 68-81.
- Ravikumar, T., Suresha, B., Sriram, M., and Rajesh, R., (2019). Impact of Digital Payments on Economic Growth: Evidence from India. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, Vol. 8(12), pp. 553-557.
- Reserve Bank of India Bulletin. Retrieved from https://m.rbi.org.in/scripts/BS_ViewBulletin.aspx?Id=17245 RBI Bulletin. Retrieved from https://m.rbi.org.in/scripts/BS_ViewBulletin.aspx?Id=16659
- Richard Reisman (2019). FairPay Relationship Pricing: An Adaptive, Value-Based Strategy for Consumer Markets. *NMIMS Management Review*, Vol. XXXVII(2), pp. 09-24.

- Saikia, G. (2017, November 21). Govt to now end cheque books in India? Retrieved from <https://www.google.co.in/amp/s/www.newsbytesapp.com/timeline/India/13073/67718/cheque-books-the-governments-nexttarget/amp/google>
- Shendge, P.A., Shelar, B.G & Kapase, S. S. (2017). Impact and Importance of Cashless Transaction in India. *International Journal of Current Trends in Engineering and Research*, Vol. 3 (04), pp. 22-28.
- Struggling to pay cash? Here are six digital ways to make your payments. (2016, December 14). Retrieved from <http://m.businessstoday.in/story/five-ways-to-make-your-payments-cashless/1/242345.html>