

Study of Evolution of Transactions to Revolution of Digital Transactions and Changes in Currency Transactions

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Abstract:

No one can dispute or reverse the results of a digital transaction. This allows users to establish confidence in the Digital Payments infrastructure. As the world's second most populous nation, India's digital payment infrastructure and user reaction (in terms of settled transaction volumes) warrants close examination. In this study, we explore the proliferation of digital transaction platforms in India and the various digital payment methods now in use there. The article correlates the increased use of digital payment methods in India with the demonetization of 500 and 1000 Rupee notes. In this study, we examine the growth in the use of digital payment methods during the last several years. Finally, the study discusses the difficulties and effects of the economy on digital payment systems.

Keywords: Revolution, Digital transactions, India, Currency transactions

Introduction

In recent years, digital transactions in India have skyrocketed for several reasons. The Indian government has been pushing digital payment methods including the Bharat Interface for Money (BHIM) app, the Unified Payments Interface (UPI), and the Digital India programme. The proliferation of cellphones and the web: Access to and usage of digital payment systems have increased as smartphone and internet penetration in India has increased rapidly. Digital payments have several benefits over cash transactions, including ease, security, and openness.

As a consequence of these developments, digital transactions in India have skyrocketed from 127 crore in 2013–14 to an expected 12,735 crore in 2021–22, an increase of more than 100

times. There has also been a substantial rise in the value of digital transactions, from Rs. 1.09 lakh crore in 2013-14 to Rs. 115.50 lakh crore in 2021-22. Over 80% of all digital transactions in India are now processed via UPI, making it the dominant digital payment method in the nation. UPI, or the Unified Payments Interface, is a mobile-based, instantaneous payment system. UPI has been instrumental in the expansion of digital payment methods in India because to its speed, ease of use, and safety.

Debit cards, credit cards, internet banking, and mobile wallets are also widely used in India. Several good outcomes have resulted from the proliferation of digital transactions in India. Corruption is less likely to occur due to the increased transparency of digital payments compared to cash transactions. People in rural locations and underserved communities now have greater access to financial services because of digital payments. The convenience of digital payments for both firms and consumers has contributed to overall economic growth.

With a growing middle class and an expanding online shopping population, digital payment systems in India have a promising future. The government is preparing a variety of measures to encourage the use of digital payment methods, including the introduction of the Central Bank Digital Currency (CBDC). The increasing popularity of digital transactions in India is an encouraging trend that might significantly boost the country's economy and the quality of life for tens of millions of people.

Review of literature

Because of its massive population and linguistic and cultural diversity, India's economy is very dynamic. There are a great many daily transactions due to the economic activity. India, like many other developing nations, has a responsibility to help its poor and disenfranchised citizens out of poverty via various social welfare programmes. India is home to a big and diverse population, and it also has the world's fifth largest economy (Myers, 2020). This highlights the need of studying the country's transactional settlement practises throughout the globe. It's important to take a comprehensive look at the many factors that have led to the introduction and growth of Digital Payment Systems in India.

Demonetization, a move by the Government of India in 2016, paved the door for a boost to Digital Payment systems and Application-based payment systems in India, although they have existed before. For this reason, analysing the choice and identifying the factors that

influenced the volume of digital transactions is crucial. His Excellency Mr. Narendra Modi, Prime Minister of India, announced the decision of Demonetization of 500 and 1000 rupee notes in the Economy on November 8th, 2016, thereby rendering them illegal money. Current 500 and 1000 rupee notes must be returned to banks in exchange for legal tender. To speed up the process of remonetizing cash, the government also released new 2000 rupee notes. The Government's action won widespread approval since it was justified as a means to reduce Black Money (or unreported currency) in the economy. The public, however, experienced significant disruption since automated teller machines (ATMs) needed to be adjusted to properly issue the new currency notes. However, this choice has resulted in a plethora of new discounts and reward opportunities for customers making purchases using mobile payment apps. Additionally, the National Payments Corporation of India (NPCI), a government-backed organisation, released the BHIM (Bharat Interface for Money) app. It established the widely used United Payments Interface (UPI) for facilitating financial transactions. Numerous studies on the effects of Demonetization on Digital Money have given Economists a sense of the ways in which Digital Payment Systems have revolutionised the Indian economy and facilitated new forms of commerce there. (Sivathanu, 2019) claims that digital payment methods in India have a lot of room to grow and are actively encouraged. Section 2's data analysis charts the development of digital payments throughout time. According to (Universtiy et.al, 2018), the introduction of digital payment systems has enhanced the efficiency of the banking sector, which benefits customers by streamlining the process of settling their transactions. The many forms of Indian payment methods are outlined here.

Objective of the study

The study's overarching goal is to get a better understanding of the different forms of digital payment exchanges. Specifically, we want to achieve the following:

- The goal is to investigate the different online banking payment options available.
- This study aims to quantify the reach of digital payment operations in the context of online transactions and
- To provide helpful advice in making the process of digital payments simple and straight forward.

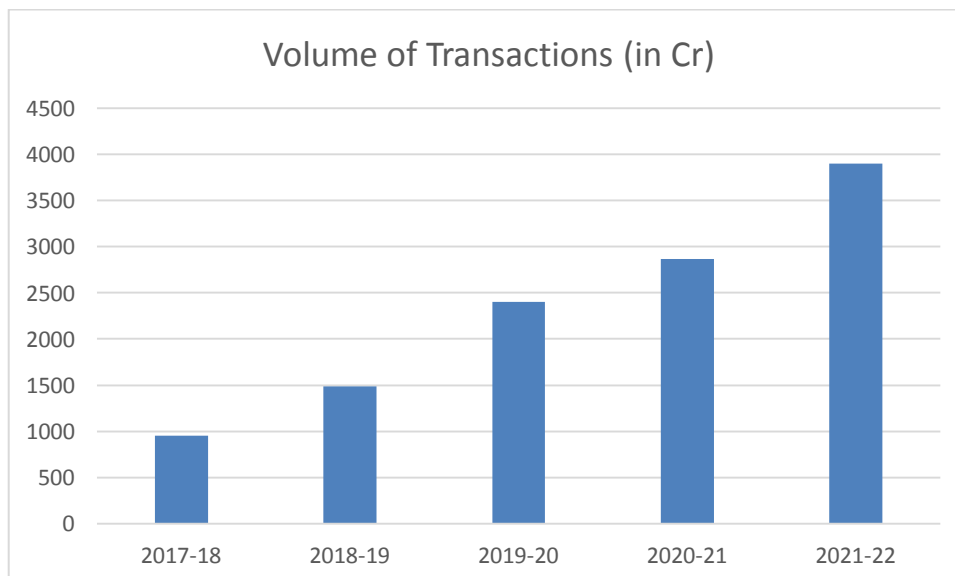
Research Methodology

The study is based on secondary data. Books, journals, newspapers, and appropriate websites were reviewed to compile the data used in the analysis.

Data Analysis & Interpretation

Digital payment systems are the means through which monetary transactions are settled electronically. There are two main categories of digital payment systems: cashless and cash-based. In cash-based systems, customers receive or deposit actual bills and coins. The Automated Teller Machine (ATM) is an example of a cash-based digital system because of its electronic currency distribution mechanism. However, the emphasis of this study is on digital payment mechanisms rather than currency. The Payment and Settlements Systems Act, 2007, and the Payment and Settlements Systems Regulations, 2008, regulate financial transactions in India. The Reserve Bank of India (RBI), India's central bank, reports that paper-based payment methods like Cheques, Demand Draughts, etc. account for roughly 11% of total payment value in India (RBI, 2020). However, most financial transactions are now processed via electronic payment systems. The sum of all internet purchases is shown in Figure 1.

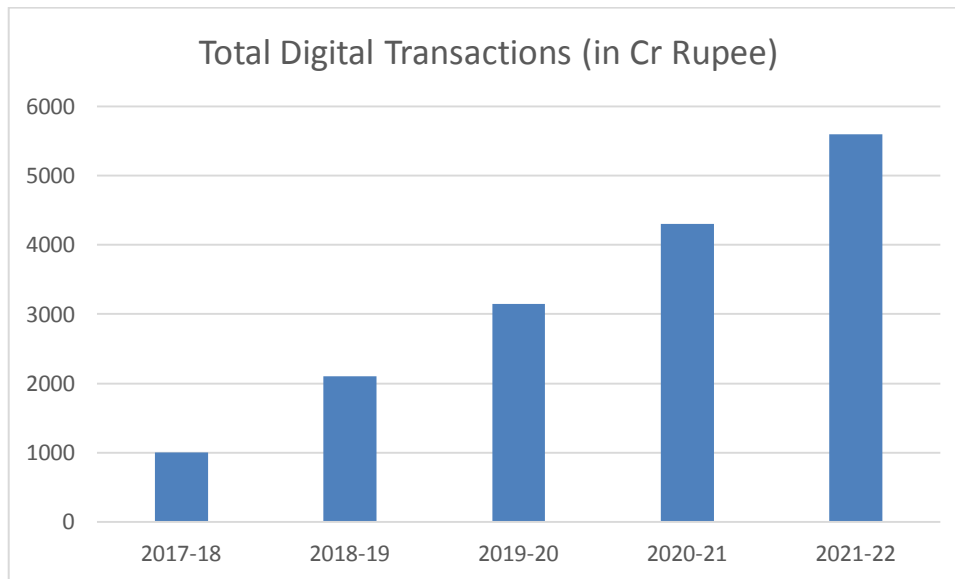
Figure 1. Number of Millions of Online Purchases



The quantity of annualised internet transactions has grown steadily yet polynomially during the last several years. This is a resounding sign that people prefer doing financial transactions online. The rising tendency might be explained by the safety and openness of internet deals. There are a variety of reasons why a growing number of people prefer doing financial transactions online than using more conventional means, including more transparency and improvements to the user interfaces of applications and websites.

Compared to cash-based systems, digital payment methods include advantages such as non-repudiability and transparency. This ensures a clear transaction that can be followed by the authorities and peace of mind for both the payer and the recipient in the event of an electronic transfer. Customers are more likely to have faith in the platform since relevant evidence are produced against every transaction. Figure 2 shows the total value of all digital currency transactions across all platforms.

Figure 2. Amount of all Crore Rupee Digital Transactions



There has been a meteoric rise in the number of transactions conducted in recent years, indicating that Indians are eager to adopt the more responsible and transparent cashless system. Following is a breakdown and explanation of the many forms that digital payment systems may take (RBI, 2020).

Electronic Clearing Systems (ECS)

When numerous people are supposed to receive money from a single debit account, this technique makes it easier. Beneficiaries may have their regular payments like salary and interest deposited into their accounts on a predetermined timetable. There is no indication of where the relevant parties are located. In cases when a large number of customers have authorised a particular bank branch to collect payments on their behalf, this feature streamlines the process of collecting and forwarding those payments to service providers. The Reserve Bank of India has created both a National Electronic Clearing System and a Regional Electronic Clearing System to include and decentralise the further process in light of India's vast and varied physical geography.

National Electronic Fund Transfer (NEFT) System

With this approach, you may safely send money online to anybody else who has an account with a bank that is recognised in India. Because it uses hourly batch settlement, money may be moved very instantly. The total number of NEFT transactions from the 2017–18 fiscal year to the 2021–22 fiscal year is shown in Figure 3.

Figure 3. Financial Years 2017–18 to 2021–22 NEFT Transaction Volume (in Crores)

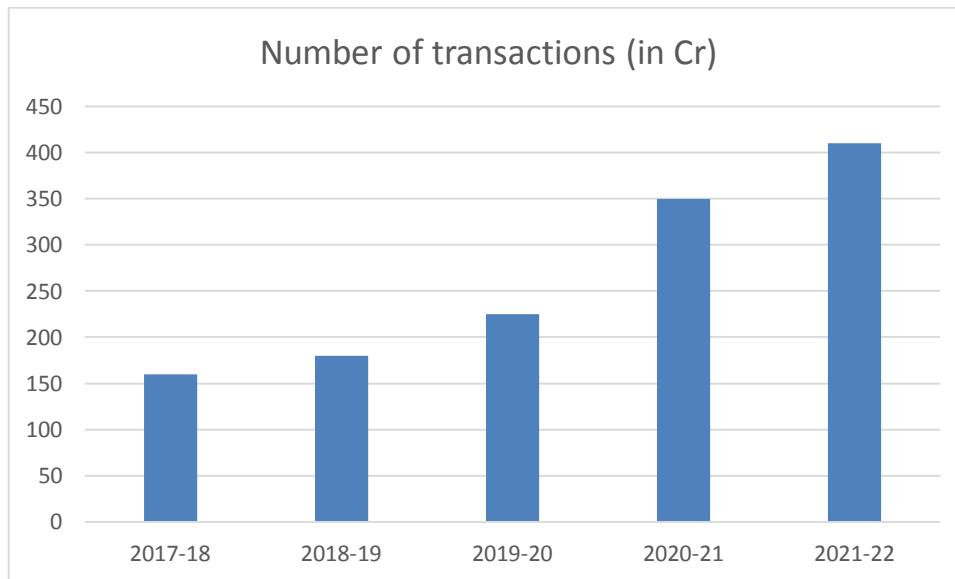
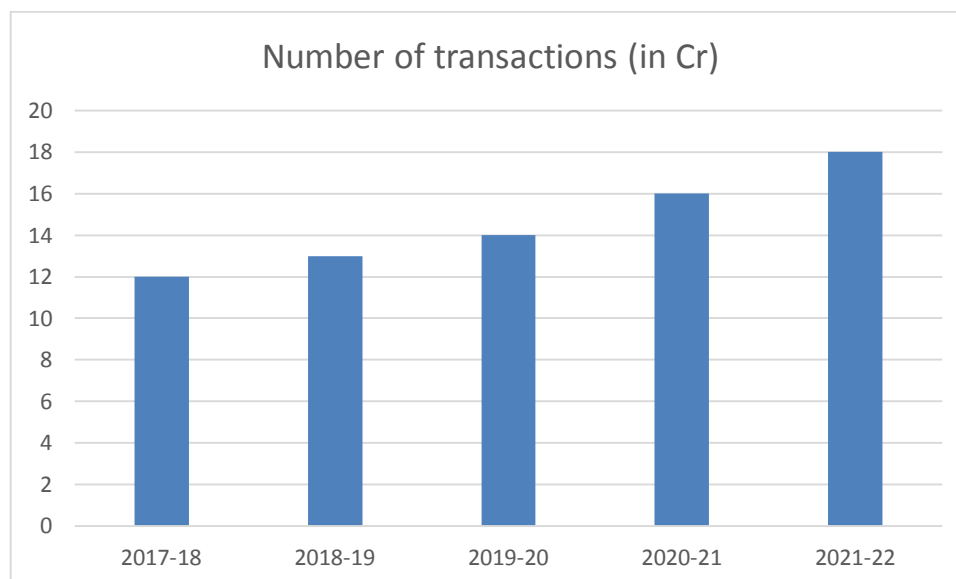


Figure 3 shows that the total number of NEFT transactions has increased steadily over time. With the rise of Internet and Mobile Banking, customers no longer need to physically go to a bank office to complete a NEFT transaction; instead, they may do it from the comfort of their own home.

Real Time Gross Settlement (RTGS) System

When compared to NEFT, which requires the netting or bunching of sums before transmission, this technique is more real-time since it allows for the safe electronic transfer of gross quantities with no waiting period. If you need to send more than 2,000,000 INR, you should use this method. The quantity of RTGS transactions from Fiscal Year 2017–18 to Fiscal Year 2021–22 is shown in Figure 4. Figures 3 and 4 show that the total number of RTGS transactions is much lower compared to the total number of NEFT transactions; however, it is important to keep in mind that RTGS transactions involve amounts greater than 2 Lakh Rupees, which, when added together, add up to a considerable sum. This not only suggests that consumers prefer electronic payment systems over the more conventional cash method when dealing with large sums of money, but also that this trend is increasing.

Figure 4. Total RTGS Transactions (in Crores) from the 2017–18 Fiscal Year through the 2021–22 Fiscal Year



Bank Cards

Account holders are given a debit or credit card to use for making purchases using their funds. Cardholders can 'swipe' their cards into the terminals to make purchases. Due to its safety and effective method against money theft, this digital payment system is widely used by many clients.

India's national payments processor, National Payments Corporation, introduced the RuPay card, an in-country card payment system that is open to all Indian banks. In 2019, the acceptance of RuPay cards expanded to include Singapore, the United Arab Emirates, Bahrain, and Bhutan.

Cash transactions, including those made at ATMs or points of sale, may increase in frequency if there were more active debit and credit cards in circulation. Data visualisations of debit and credit card circulation are intended to be used for research on the spread of information about these payment methods.

Figures 5 and 6 demonstrate clearly that the quantity of bank cards in circulation is growing. Debit and credit cards have grown more popular as a means of digital transaction with the rise of Payment Gateway Platforms that allow card payments without the need to physically

'swipe' cards through a terminal.

Figure 5 and 6. The total number of Credit Cards and Debit Cards in circulation as of the conclusion of the relevant Financial Year, expressed in Crores.

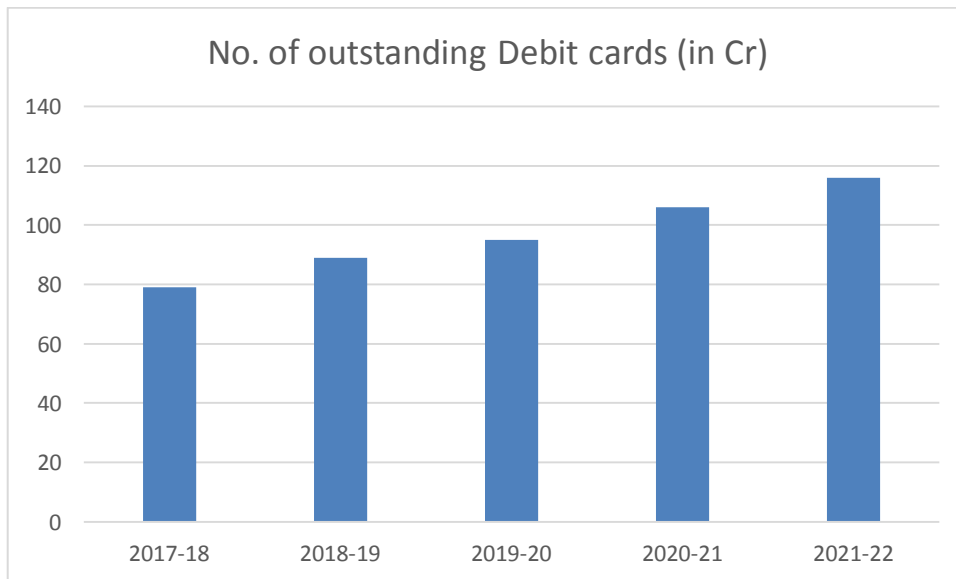
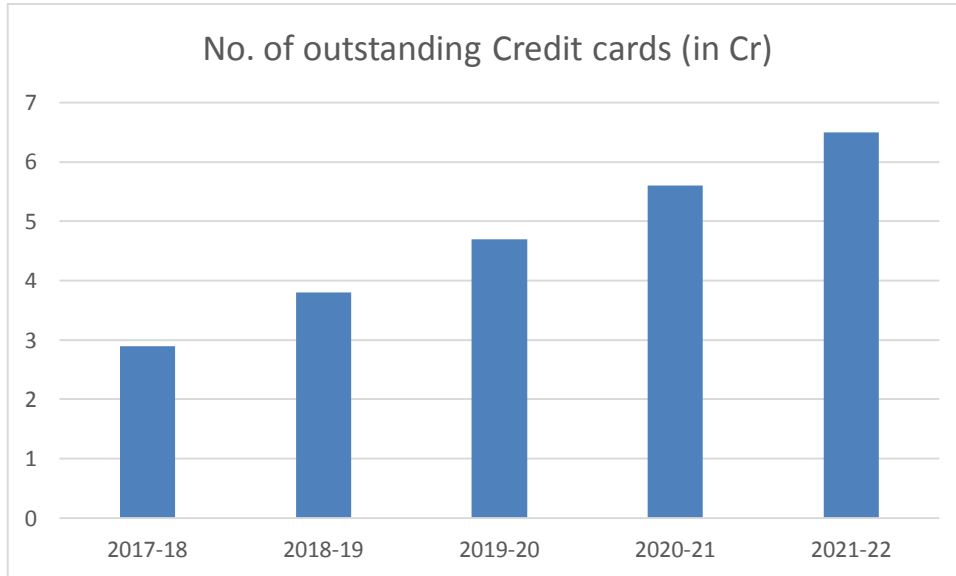
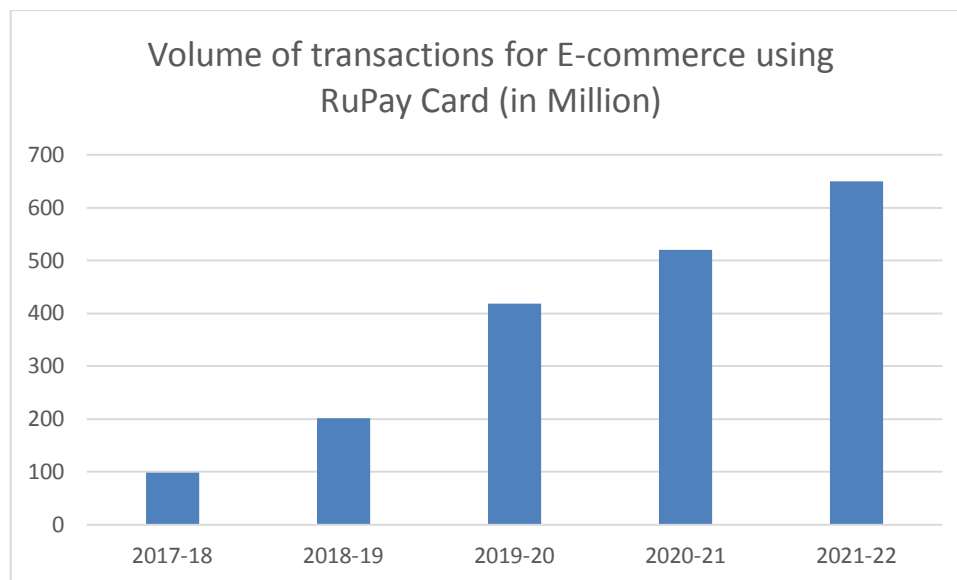


Figure 7. E-commerce volume (in millions) on the RuPay card from the 2017–18 fiscal year to the 2021–22 fiscal year.



The desire by the Government of India to use local ideas is given a boost by the fact that RuPay cards are held domestically. As can be seen in Figure 7, the use of RuPay cards in online purchases has expanded dramatically. The data excludes cash-based transactions like those made at ATMs, suggesting that the widespread use of RuPay cards is paving the way for an increase in e-commerce.

Mobile and online banking as well as prepaid card systems

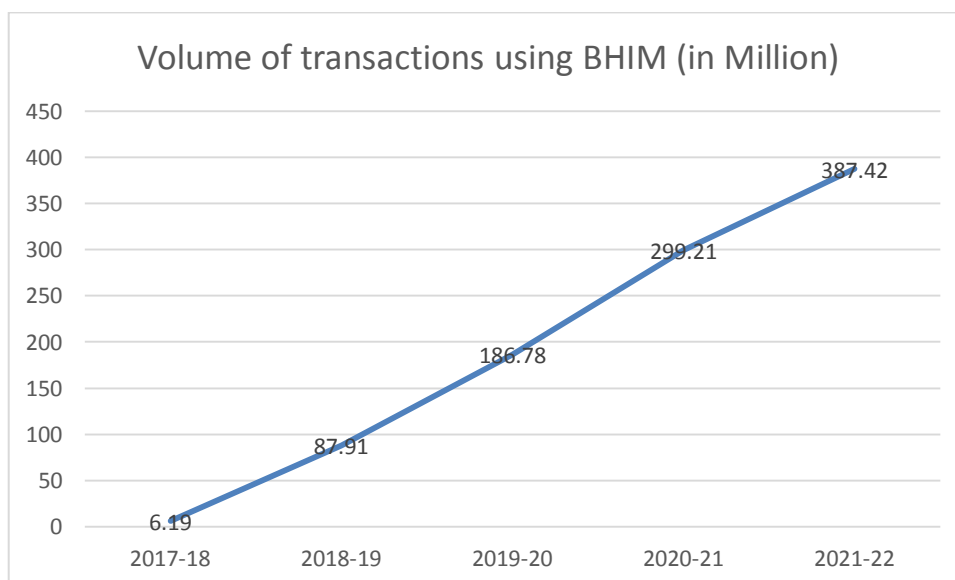
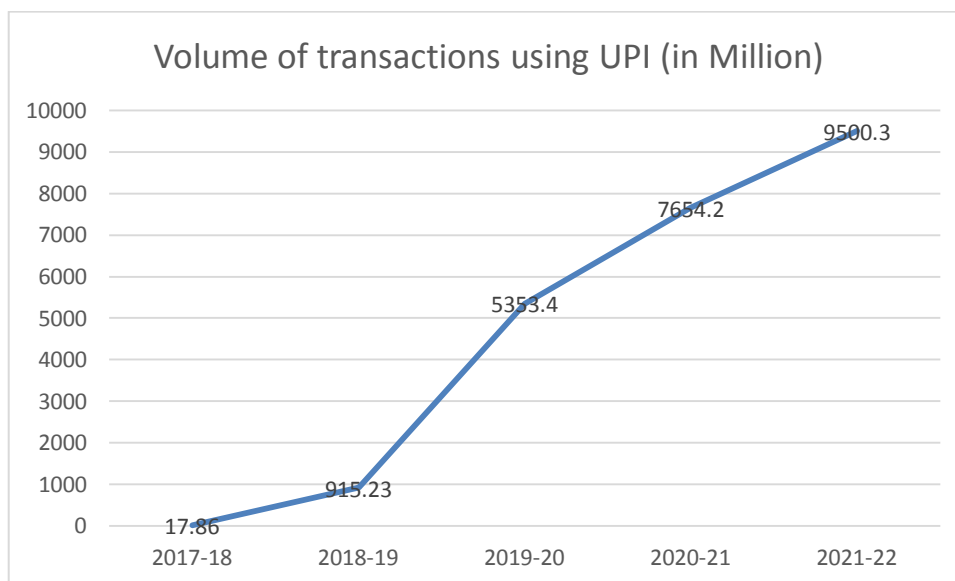
Various banks have used novel approaches to bring their fundamental operations, including monetary transactions, onto the digital platform. Prepaid Wallets in Apps like Paytm, PhonePe, etc. have had a significant impact on the location of payment systems in India as mobile applications have grown in popularity.

Uniform Payments Interface (UPI)

UPI is an interface that lets you connect your various bank accounts and make instant, hassle-free, 24-hour, no-IFSC-Code money transfers between them. Users may also make payments on their utility bills with this system. The Unified Payments Interface (UPI), which was introduced with the BHIM App, is now extensively utilised by various businesses and banks to enable customers to make payments outside of the BHIM App. It also includes QR

Code based payments, where a QR Code is read using the camera on a Mobile Phone through the App, and instantaneous monetary transfers are done. It's safe and reliable since it gives immediate confirmation of money transfer and reception. Figure 3 is a depiction of Figure 8 and 9.

Financial Years 2017–18 through 2021–22: UPI and BHIM UPI Transaction Volume (in Million)



Figures 8 and 9 reveal a great deal about Indian society's eagerness to do business online. The National Payments Corporation of India, a government organisation, developed UPI and BHIM UPI-based transactions, thus it's necessary to take notice of them. Lower prices for

computers and mobile phones are partly to blame for the meteoric rise in business activity. Users have shown enthusiasm for UPI and BHIM UPI, two mobile application payment systems. According to a study conducted by Tungare (2019), more than 70% of respondents found UPI simple to use and responded favourably to the shift from a cash-based to cashless transaction system.

While the aforementioned are among the most well-known, there are numerous more. Even while this study makes a case for the significance of digital payment systems and conducts an analysis of data pertaining to digital payments or transactions, it is possible that other variables also contribute to the meteoric rise in the total number of these types of exchanges. It is undeniable, however, that digital payments and transactions have taken a larger share of financial settlements, and given the current trajectory, this share may continue to grow.

Conclusion

The rising use of digital payment and transaction systems in India has had a significant impact on the country's financial system. According to the data presented in this article, the current trend of switching to cashless systems, which is already on the rise (although at a slower rate than the rate of economic change), is expected to accelerate significantly over the next few days. The reason behind this is because passing around paper money requires physical contact between people, which might spread disease. Digital transactions, on the other hand, eliminate the risk of physical interaction between buyers and sellers. It's undeniable that the online world poses a threat to digital payment methods. Cybercrime and other forms of fraud that deceive individuals into parting with their money feature prominently. There are several potential dangers in doing business online. Legal, liquidity, operational, reputational, fraud, and credit risks, including occurrences like theft and the need for quality maintenance of the system, are all taken into consideration. Losses in the hundreds or even millions of rupees might result from a single flaw or security hole in the network infrastructure. As a result, users should be aware of the potential dangers of doing financial or personal business via open networks and take appropriate precautions. There is need for further study on the effects of fraud on the economy and the populace. In addition, economists and computer scientists may find studying India's potential transition to a cashless economy to be a fruitful area of inquiry.

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