



A STUDY ON THE ROLE OF UNIFIED PAYMENT INTERFACE IN THE GROWTH OF CASHLESS TRANSACTIONS IN INDIA

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Abstract: The advancement of digital technology has altered the nature of financial transactions, resulting in the emergence of cashless transactions. This paper examines several techniques of cashless transactions and the critical role that the Unified Payments Interface (UPI) has played in their growth. Credit and debit cards, mobile wallets, online banking, and UPI are all examples of cashless transactions. Each technique has distinct features and benefits that contribute to the growth of the cashless environment. However, in the Indian context, UPI stands out as a game changer, revolutionizing the way transactions are performed. Its ease of use, user-friendliness, quick financial transfers, minimal transaction costs, and broad platform accessibility have fueled the expansion of cashless transactions. UPI has promoted more digital transactions, reduced dependency on cash, and developed a digital payment culture. This study examines the influence of UPI on the growth of cashless transactions, emphasising its role in promoting financial inclusion and accelerating economic digitalization. Furthermore, it investigates possible areas for future growth and makes recommendations to maximize the benefits of UPI in the ongoing cashless transaction revolution.

Keywords: Cashless transactions, Digital payment system, UPI

1. Introduction

The Reserve Bank of India and the Indian government are promoting digital payment methods and systems including prepaid cards and instruments, in order to reduce the usage of physical currency in the economy. The goal of the RBI's campaign to advance these innovative ways of settlement and payment mechanisms is to realise the concept of a "less-cash society." The phrases "cashless transaction economy" and "less-cash society" here all refer to the same idea, which is the reduction of cash transactions and the digital settlement of transactions (Puntiha & Priya, 2017).

Digital transactions are increasing significantly in the current economic environment. A cashless transaction is a method of making payments that does not require the use of physical cash and serves as a gateway for technical growth in the field of global economics. (Rashmi & Archana, 2021) A digital (cashless) payment is a shift in attitudes in which individuals eliminate the practice of exchanging products and services for cash rather to using electronic transfer payments or non-electronic transfer payments like cheques.

In India, the number of cashless transactions has increased significantly due to UPI (Unified Payments Interface). Through mobile devices, users may instantly transfer money between bank accounts due to the

UPI real-time payment system. Since being launched in 2016 by the National Payments Corporation of India (NPCI), it has been incredibly well-liked among Indians. 358 banks were accessible on the platform as of September 2022, with 6.7 billion transactions per month and a value of ₹11.16 trillion (US\$140 billion) (<https://www.npci.org.in/>, n.d.). The total amount of transactions in FY 2023 was \$1.7 trillion, of which \$380 billion came from merchant payments. (*en.wikipedia.org*, n.d.)

2. Review of Literature

(Jha & Kumar, 2021) The study, "An innovative step for making Digital payment effective and factors affecting Consumer perception on the use of UPI," revealed that the behavioural intentions of users who choose to accept and use UPI payments are significantly influenced by performance expectations, effort expectations, enabling conditions (mobile specifications and network strength), and cashbacks & rewards.

(Hasan et al., 2020) in their paper titled "Cashless Economy in India: Challenges Ahead" researchers interviewed students, academics, and businesses from both urban and rural locations to learn about the obstacles that Indian residents experience as they switch to a cashless economy. Various digital payment options were also launched to make cashless transactions easier and more environmentally friendly. Researchers discovered that one of the issues that Indians confront is a lack of knowledge and awareness about the cashless economy.

(Tungare, 2018) The research "A Study on Customer Insight Towards UPI (Unified Payment Interface) An Advancement of Mobile Payment System" reports that following demonetization, there has been a rise in the number of cashless transactions. In Indore, the researcher conducted research on payments made using UPI and associated e-payment networks. The majority of respondents saw UPI payments as a handy payment option that provides a range of benefits and incentives, according to the study's findings. The investigation came to the conclusion that use of smartphones has improved the growth of UPI transactions.

3. Statement of the Problem

The rise of digital technology has introduced various methods of cashless transactions, including debit cards, credit cards, mobile wallets, internet banking, and the Unified Payments Interface (UPI). While these methods provide ease and flexibility, it is critical to evaluate their influence on the growth of cashless transactions and comprehend the special role of UPI in this shift. As a result, the task at hand is to assess the success of various modes of cashless transactions and evaluate UPI's distinctive contribution to the expansion of cashless transactions. This study aims to investigate the various methods of cashless transactions, with a particular emphasis on UPI, and to give insights into maximizing the potential of UPI to further accelerate the acceptance and growth of cashless transactions in India.

4. Objectives

The study is confined to the following objectives:

1. To study the different modes of cashless transactions in India.
2. To study the role of UPI in the growth of cashless transactions in India.

5. Research Methodology

The current study is descriptive in nature and is based on the secondary data that was gathered from many sources, including books, articles published in various magazines and newspapers, RBI annual report, BCG reports and websites, etc. In order to achieve the objectives of the study journal articles, reports and websites were thoroughly searched, and a relevant conclusion was drawn.

6. Analysis and Discussion

The secondary data associated to various modes of Cashless transactions are collected from the Annual Report of the Reserve Bank of India published on its official website.

6.1 Different modes of Cashless Transactions

There are several methods of cashless transactions in India. Some of the most common ones are:

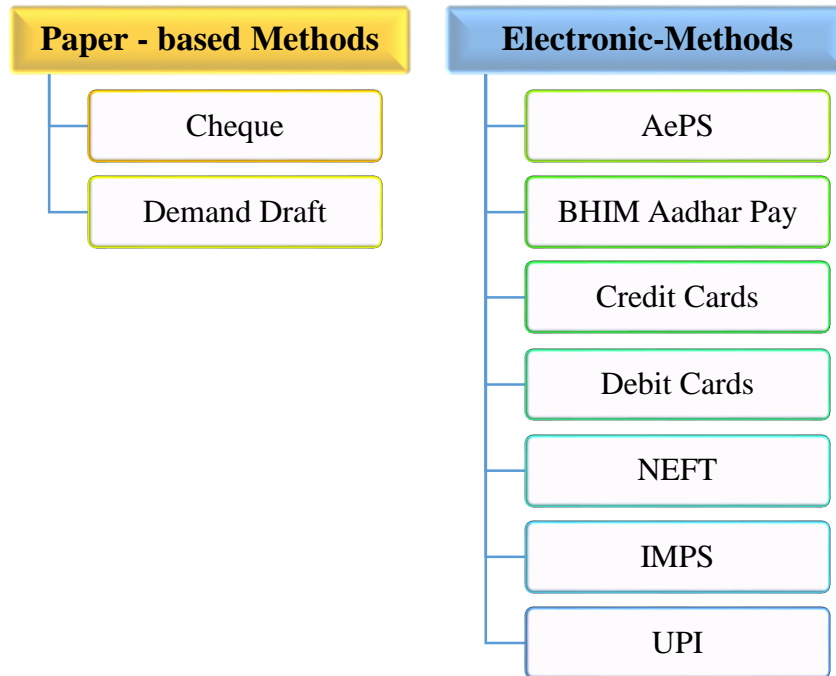


Figure No. 1: Different Methods of Cashless Transactions

Source: Compile by Researcher

6.1.1 Paper - based methods

- **Cheque:** A cheque is a financial instrument that acts as a written instruction from an account holder to a bank to pay a specified amount of money to the person or organisation indicated on the cheque. It is a method of payment that allows customers and businesses to conduct transactions without the need of actual cash. The payee's name, the date, the amount in both numeric and written form, and the account holder's signature are all included on the cheque. The bank validates the signature and conducts the payment when the cheque is deposited or presented for payment.
- **Demand Draft:** A demand draft is a payment instrument issued by a bank on a customer's behalf. It is a guaranteed and pre-paid type of payment that is typically utilised for large or outstation transactions. The consumer gives the bank the amount to be paid as well as the name of the receiver. The bank deducts the amount indicated from the customer's account and issues a demand draft in the recipient's favour. Because it is drawn on the bank's own money, the demand draft is a safe and dependable method of payment. To receive payment, the receiver must deposit the demand draft into their bank account.

6.1.2 Electronic methods

- **Aadhaar-enabled payment system (AePS):** Using the "Aadhaar" number and online UIDAI verification, the National Payments Corporation of India offers banks and other financial institutions a new cashless solution called AePS through their numerous business correspondent service centres. The AePS uses low-cost, interoperable access devices, called Micro ATMs, that are owned by business correspondents to offer basic banking services, such as cash deposits, balance inquiries, cash withdrawals, and transfers. Neither a signature nor a visit to the bank are required for this procedure.
- **BHIM Aadhar Pay:** BHIM Aadhaar Pay enables retailers to take digital payments from consumers over the counter. By verifying the customer's biometrics, it allows any merchant associated with an acquiring bank that is actively using BHIM Aadhaar Pay to accept payments from customers of any bank. The merchant needs an Android phone running the BHIM Aadhaar application and a verified biometric scanner attached to a tablet, smartphone, or kiosk via a USB port or Micro-ATM/POS in order to do this. The Aadhaar number of the customer and the merchant must be linked to the same bank account.
- **Credit Cards:** A credit card is a piece of plastic one may use to borrow credit from the credit card company in order to pay for goods. It is issued by Visa or another network. When buying goods from a retailer who takes credit cards, payment requires a credit card reader.
- **Debit Cards:** Prepaid cards are debit cards, sometimes referred to as ATM cards. To make a purchase, a person must first register an account with the issuing bank, which will provide a debit card with a unique ID number. He or she must then input the pin number on the shop pin pad. The banking system verifies the pin when the card is swiped through the electronic terminal and decides whether or not the issuing bank will allow the transaction. As the system will reject any transaction that exceeds the customer's account balance therefore the consumer will never overspend.
- **National Electronic Funds Transfer (NEFT):** The Reserve Bank of India (RBI) launched National Electronic financial Transfer (NEFT) as a method of online financial transfer. It instantly transfers funds across banks across India. A bank branch must be NEFT-enabled in order for a customer to transfer funds to another party.
- **Immediate Payment Service (IMPS):** IMPS offers a powerful and real-time fund transfer service that is available 24x7 through different channels such as mobile, internet, ATM, and SMS. IMPS is a strong service that allows payments to be transferred immediately between banks in India, which is not only safe but also cost-effective. Currently, 713 participants are active on IMPS, which includes banks and PPIs.
- **Unified Payment Interface (UPI):** Unified Payments Interface (UPI) allows any participating bank's mobile apps, such as Phonepe, Paytm, Google Pay, and others, to be connected to multiple bank accounts. Customers may pay a variety of retail stores, online and offline straight from their bank account with UPI, eliminating the need to enter credit card details, IFSC codes, or net banking or wallet passwords. It brings together a variety of financial services under one roof, including seamless fund transfer and merchant payments. Since its establishment by the NPCI in April 2016, users have found it to be a popular option for transferring and receiving money. Additionally, it manages "Peer to Peer" collection requests, which may be scheduled and funded based on convenience and necessity.

The below-mentioned figure shows the volume of transactions through different modes of cashless payment systems:

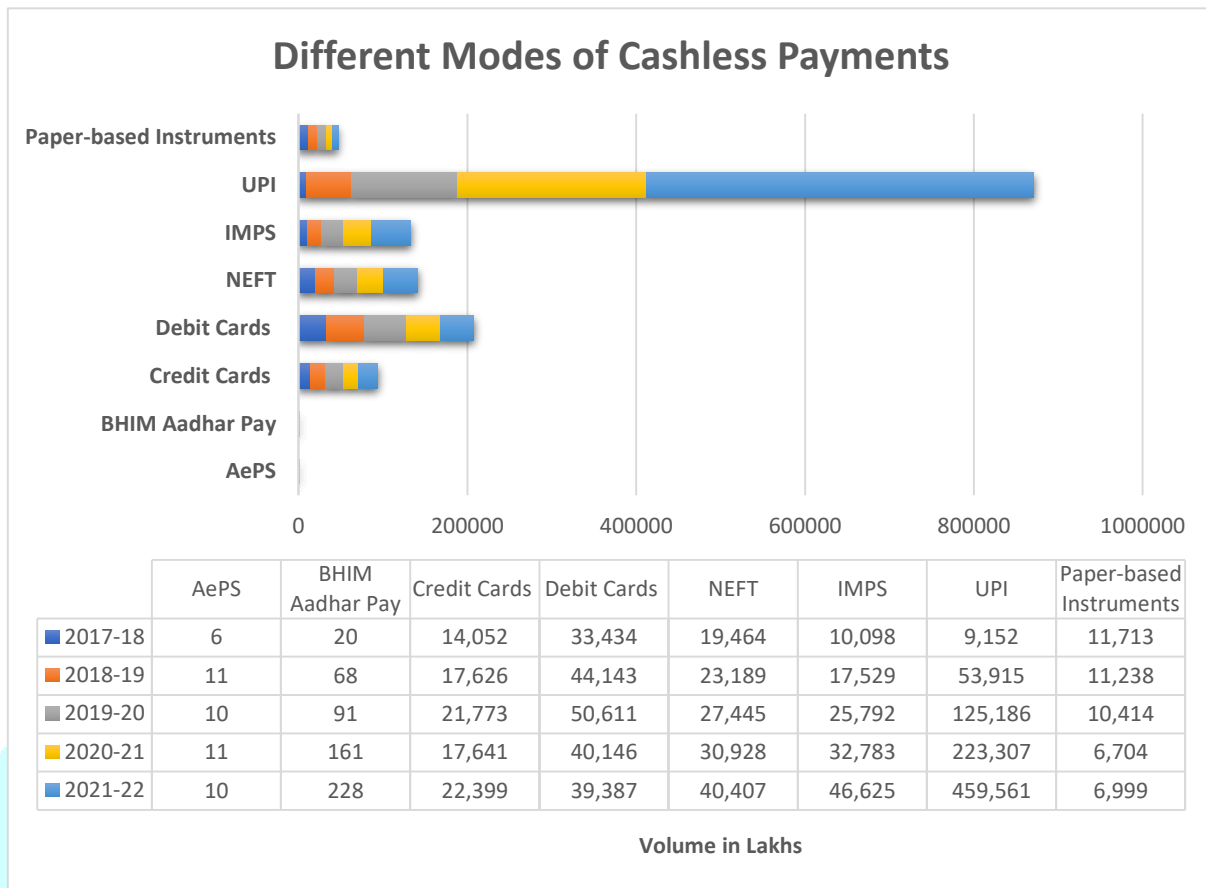


Figure No. 2: Volume of transactions of different modes of Cashless Payments

Source: Reserve Bank of India - (*Annual Report of RBI*, n.d.)

The above graph shows that as compared with the other modes of cashless payment, the volume of **Unified Payment Interface (UPI)** transactions is rapidly increasing year by year. So, this study will be focused on the UPI mode of cashless transaction as it is frequently used and mostly preferred by the user because of hassle-free, fast and cheapest way to transfer money, anytime and from anywhere.

6.2 Contribution of UPI in the growth of Cashless transactions

- **User-friendly and convenient:** UPI is incredibly user-friendly and convenient to use. Users can link their bank accounts to a virtual payment address known as a UPI ID. This removes the need to provide bank account information or credit card data while doing transactions.
- **Instant transfer of funds:** UPI allows for the quick transfer of funds between bank accounts, 24 hours a day, seven days a week. This makes it appealing to those who need to transfer and receive money instantly.
- **Low transaction fees:** When compared to older methods such as NEFT or RTGS, UPI charges relatively minimal transaction fees. As a result, it has become an appealing choice for small enterprises and individuals.
- **Availability on numerous platforms:** UPI is available on a variety of platforms, including mobile applications, websites, and even feature phones. As a result, it is now available to a vast number of individuals throughout India.

- **Encouragement of digital payments:** UPI has played an important role in increasing digital payments in India. It has made it simpler for users to conduct transactions without the need of cash. This has resulted in a decrease in the use of cash and a rise in digital transactions.

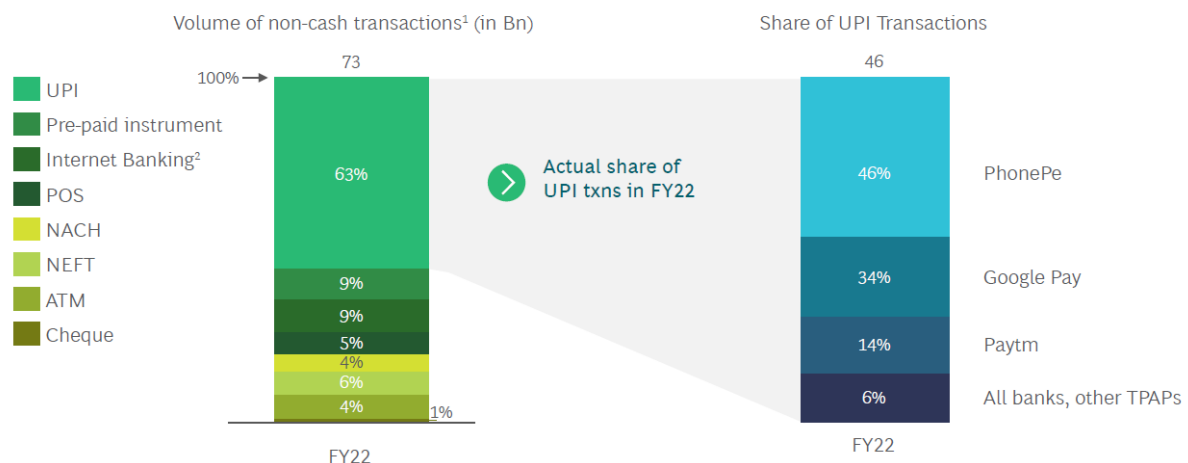


Figure No. 3: Share of UPI Transactions

Source: (PhonePe Pulse BCG Report, n.d.)

6.3 Impact of UPI on the Growth of Cashless Transactions

- **Increase in Digital Transactions:** The use of UPI has resulted in an enormous rise in the number of digital transactions in India. According to a Reserve Bank of India (RBI) research, the number of digital transactions in India climbed from 10.3 billion in fiscal year 2016-17 to 71.9 billion in fiscal year 2020-21. UPI contributed significantly to this growth of about 46x transaction volume increase in past 5 years, with the number of UPI transactions increasing from about 1 billion in FY2016-17 to about 46 billion in FY2021-22; accounting for more than 60% of non-cash transaction volumes in FY22.
- **Reduction in Cash Transactions:** UPI has also resulted in a decrease in cash transactions in India. According to the RBI, the value of currency in circulation as a proportion of GDP fell from 12.2% in the fiscal year 2016-17 to 10.2% in the fiscal year 2020-21. This can be linked to a growth in the usage of digital payments, with UPI playing a significant role.
- **Impact on Digital Payments Ecosystem:** UPI has had a significant impact on the digital payments ecosystem in India. It has consolidated numerous payment mechanisms, including bank transfers, mobile wallets, and payment banks, onto a single platform. Users' payment processes have been streamlined, eliminating the need for several payment apps. UPI has also provided new opportunities for businesses, allowing them to quickly offer digital payment solutions to their customers.
- **Encourage Small Value Transactions:** UPI has been very successful in encouraging small value transactions. Because of the cheap transaction costs and ease of usage, consumers have begun to utilise UPI for small-value transactions such as paying for groceries, gas or utilities. This has reduced customers' dependency on cash for daily transactions, making them more convenient.
- **Increasing Digital Payments in Rural regions:** UPI has been instrumental in encouraging digital payments in rural regions. People in rural places have found it simple to implement digital payments due to UPI's simplicity and accessibility.

- **Financial Literacy Promotion:** UPI has also played a role in developing financial literacy in India. People have become more aware of financial concepts such as digital payments, bank transfers, and the significance of saving as a result of their usage of UPI. This has aided in the promotion of financial literacy, which is critical for the economy's long-term success.
- **Facilitating Government Initiatives:** UPI has aided in the implementation of several government projects, including Digital India and the Jan Dhan Yojana. The government has been encouraging individuals to register bank accounts and has promoted digital payments as a measure of financial inclusion. UPI has played a critical role in assisting these activities by making digital payments available to everyone, regardless of socioeconomic status.

7. Suggestions

- **Increase awareness:** While UPI has grown in popularity in metropolitan regions, there is still a need to raise awareness about the benefits of UPI in rural areas. People should be educated about the benefits of UPI and how it might help them with their financial activities.
- **Promote Security Measures:** As the number of digital transactions grows, it is critical to encourage security measures to protect consumers' financial data. NPCI and banks may educate customers on secure transaction best practices, such as generating strong passwords, keeping mobile devices up to date with the newest software, and never disclosing OTPs or UPI PINs with anybody.
- **Improve Merchant Acceptance:** While UPI has made payments easier for consumers, it is critical to improve merchant acceptance in order to boost its use. Increased efforts should be made to expand the number of retailers who accept UPI payments, especially in smaller towns and rural regions.
- **Improve Interoperability:** UPI's interoperability has been critical to its success. Efforts should be made to improve compatibility with other payment systems, such as credit cards and wallets, in order to expand digital payment use.

8. Conclusions

UPI has played a significant role in promoting cashless transactions in India. UPI has transformed the payments environment by boosting digital payments, lowering cash transactions, and promoting financial inclusion. UPI has pushed consumers to use digital payments, reducing their dependency on cash. Its ease of use, minimal transaction costs, and convenience have made it a popular option for both people and businesses. UPI has also had a larger influence on the digital payments environment, encouraging financial literacy and aiding government programmes while increasing digital payments in rural regions. However, there is still scope for improvement, and efforts should be made to raise awareness, promote security measures, improve merchant acceptance, develop new use cases, and improve interoperability in order to significantly grow digital payment usage in India. Overall, UPI has been a game-changer in the payments industry in India with a bright future, and its impact is expected to grow further in the future.

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