

UPI (UNIFIED PAYMENTS INTERFACE) - TRANSFORMING FROM LOCAL TO GLOBAL**Dr. Jharna Tolani**Assistant Professor, VPMs K.G. Joshi College of Arts and N.G. Bedekar College of Commerce, Thane
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ABSTRACT

Indian Banking Sector has striven hard to support the Digital India Campaign by taking various revolutionary steps resulting in a synergy of banking services and technology. Reserve Bank of India launched UPI (Unified Payments Interface) with the help of its umbrella organisation NPCI (National Payments Corporation of India) in 2016 with the hope to transform the banking payment mechanism in India. UPI: a cost-effective, simple, and secure digital payment service platform for all Indians. Changing the banking habits of people from contact to contactless, paper to paperless, and, face to faceless was quite challenging. However various other factors like demonetisation, COVID-19, and a significant increase in the usage of mobile phones created a record of sorts in the usage of UPI for digital transactions in India. One of the objectives of UPI was to integrate financial inclusion and digitisation. Today this interface has gone beyond this objective and is also digitally connecting India with the rest of the world. It is moving steadily towards becoming one of the global digital payment infrastructures. Today UPI is used as a payment mechanism in various other countries in different continents and has thereby created a noteworthy place for India on the world economic map. The objective of this research paper is to analyse the performance of UPI in India and the impact of its presence at the international level.

Keywords: Banking, Technology, Digital Payments

• INTRODUCTION

Digitization of the country's payment mechanism was kickstarted to reduce dependency on cash and to avoid the concerns of money laundering. It took quite a long time to convert the traditional system of cheques, demand drafts, and money orders to plastic cards, NEFT or RTGS. But In 2015 the government introduced its flagship program "Digital India" with a vision to create a digitally well-informed and empowered society and economy. A smooth shift was observed in the payment system post this with the introduction of UPI and BHIM App. UPI was launched in India in 2016 and since then there has only been an upward movement in its usage. It has proven to be a leader in the real-time payment infrastructure not only in India but across borders. UPI was introduced by the umbrella company of RBI, the National Payment Corporation of India(NPCI) on a pilot basis but today it has become one of the most successful payment platforms anywhere in the world. UPI is a payment platform where one can link one's bank account with a mobile payment application that can route the funds in real time for peer-to-peer or peer-to-merchant transfers.

• The objective of the Study:

To analyse the performance of UPI as Digital Payment Infrastructure in India and Globally.

• Method of Study:

The research is based on secondary data available on NPCI website, other research papers, reports, and newspaper articles.

• UPI Operations in India:

NPCI launched UPI as a pilot project with 21 member banks and later UPI enabled Apps were made available on app stores of different mobile phones. The major objective here was to support easy and secure money transfers between bank accounts. NPCI has made BHIM UPI, a mobile payment app based on the UPI interface used for making cashless payments. Apart from that, there are other payment instruments like Paytm, Google Pay, or Amazon Pay providing mobile pay banking with RBI approval. In case of transactions through UPI, one has to create a UPI ID and link their bank account with their mobile number. For protection and to authenticate the

transaction, a four or six-digit pin has to be generated. Transfer of funds is possible by entering the receiver's mobile number or by scanning a QR code. There are various parties involved in UPI transactions viz. NPCI(originator), Payer PSP(Member Bank which onboards customer for UPI app and related transactions approval) , Payee PSP(bank which onboard customer for receiving money), remitting bank(bank which takes the responsibility of authenticating customer set UPI PIN while performing transaction) , beneficiary bank(bank which receives funds in UPI transaction), and bank account holders like customers, merchants, or corporates¹. This Made in India Digital Payment System resulted in a total of 8.7 billion transactions amounting to Rs.14.05lakh crore, for the financial year ended 2022-23 with March recording a record high for the platform². Similar performance could be seen in this financial year too. Multiple factors have led to such quick and widespread popularity of UPI from the recent beginning to such robust numbers in a short period.

• **Reasons for UPI Popularity in India:**

1. **Increasing Penetration of Mobile Phone Users:** The penetration of smartphones has reached 71%(Statista.com) in India³ which majorly helped UPI to grow at such a fast pace. In Feb2023 ,it accounted for about 75% of the total transaction volume in the retail segment during the year 2022-23 (PWC Report)⁴. This is the outcome of the ease and convenience of digital payments with mobile phones and the added comfort of not having to carry debit/ATM or credit cards separately. Credit cards hold on to their share of the pie owing to their niche features but debit card usage is declining as it is mainly used for withdrawing money and that is very easily replaceable with the UPI features. Today UPI is also accessible to a small set of people who use normal feature phones instead of smartphones. NPCI, through their products like UPI Lite and UPI123, has bridged the gap and made it possible for such users to employ UPI in offline mode without smartphone features and internet connectivity.
2. **Easy and Secure Money Transfer:** It is an architecture framework with a set of standard Application Programming Interface (API) specifications to facilitate online payments. It allows adding multiple bank accounts into a single mobile application which leads to easy money transfers to individuals or merchants without the need to remember details of bank account numbers. UPI ID, UPI Number, Bank account no. and IFSC code are used for making payment which is secured as per RBI guidelines. There is double-factor verification through UPI PIN before making any payment. It also has the feature of pay and ask both, where using UPI ID one can make the payment and also initiate a collect request transaction from the remitter to remind him to make the payment.
3. **Commercial Payment:** Majority of the merchants today are allowing customers to pay using UPI ID, all UPI apps linked to merchant apps are made available to customers for quick payment. Customers can select the app of their choice and make secured payment by authenticating with their UPI PIN. This service improves the ease of business for the merchant as there is no need for merchants to separately buy point-of-sale equipment. They provide UPI payment mechanisms through multiple payment apps to those customers who are not willing to make the payment through cards or cash on delivery. UPI facility is now available even for IPOs where UPI can support ASBA. Customers can provide their UPI ID for making payments for IPO. All they have to do for that is just to inform brokers while applying for the respective IPO.
4. **Benefit for Banks and Payment Banks:** UPI has reduced the pressure of successful transactions for banks. Dishonour of cheques, and time lags in payments at times inconvenienced banking operations and customers alike. UPI payments are quick, can be done multiple times and in large quantities, and are safe too. This also gives business to the various payment fintech companies through commission income, loan disbursals, and collection facilities on behalf of lenders.
5. **Instances of Realization:** Though digitization in banking services is not a new phenomenon, even after the Digital India Campaign and after the introduction of UPI, the banking culture did not adopt cashless or contactless mode immediately. Certain happenings forced people to use UPI and other methods of digital payments. Demonetization and constant push by the Government to have a cashless economy since the year

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2015 forced people to use UPI and other digital methods for making transactions. Even during COVID-19, people reacted by limiting spending initially but later found a safer alternative in digital payment platforms to fulfill their consumption needs. The pandemic and lockdown tapped the unpenetrated market which earlier primarily ran on cash. Post Covid, there is no requirement for safe distancing anymore. However, consumers and merchants, both have gotten used to the new ecosystem which is a combination of digital and physical space.

• **UPI Operations Across Borders**

After changing the payment segment of India, Unified Payment Interface is steadily becoming globally attractive. With the approval of RBI and NPCI Board, NPCI International Payment Limited (NIPL) was formed in the year 2020 for the deployment of Rupay and UPI services outside India. Various bilateral tie-ups with countries became an important step towards making UPI Global. But making it global in real terms will be a big challenge as UPI has to comply with different rules and regulations, payment system standards, and interoperability between various payment systems. Thus, UPI is moving steadily towards global activities.

• **Ways through which UPI is becoming Global:**

1. **Allowing Foreign Players in India:** In the Financial year 2022-23, PhonePe, Google Pay, and Paytm have dominated Indian UPI Payment Market. As per NPCI report these top three apps accounted for nearly 96% of payment business⁵. Allowing Payment Options like Google Pay, Amazon Pay, and Whatsapp Pay not only increased the competition for Indian players but it led to allowing these foreign players to make use of the UPI platform for transactions in India. Instead of Using words like "UPI chalega", People say "GPAY karo". It was the very first step of UPI towards being global.
2. **UPI Global:** NPCI is adopting a collaborative approach with all its stakeholders like member banks, third-party application providers, and other payment providers for UPI Global. Indian Player PhonePe announced in February 2023 about extending support of UPI for international payments in UAE, Singapore, Mauritius, Nepal, and Bhutan. Users will now be able to pay in international currency directly from Indian bank accounts⁶.
3. **UPI for NRIs:** After providing the facility of a Ru-Pay Credit card to NRIs, NPCI has eased out certain rules for UPI too. Earlier, to use UPI in India, NRIs had to keep their Indian Sim Card linked to their Indian account. This meant that they had to pay the balance refilling or top-up charges of SIM cards. Now, they can link their NRE/NRO account with their foreign mobile number by following the proper Guidelines of KYC as per governing laws of FEMA, and the rest of the procedure under RBI Guidelines is followed by the respective bank⁷. This reduces the pressure of keeping an Indian Sim Card for NRIs which otherwise is of no use. Countries like Singapore, Australia, Canada, Hong Kong, Oman, Qatar, USA, Saudi Arabia, UAE, and the UK are covered under this service.
4. **Countries Accepting UPI:** There are global partnerships of NIPL with different countries to build an acceptance network for Rupay and UPI. Countries like Nepal, Bhutan, Singapore, Oman, UAE, and recently France and many more have entered into MOUs with NIPL for enabling UPI with their local digital payment platforms so that the Indian Payment Platform can be used in their respective country. Bhutan is the first neighboring country to use BHIM UPI. NIPL had also signed a deal with Liquid Group, a cross-border digital payments provider, for enabling QR-based UPI payments' acceptance in 10 countries across different parts of Asia, including Malaysia, Thailand, Philippines, Vietnam, Singapore, Cambodia, Hong Kong, Taiwan, South Korea, and Japan⁸. This implies that Indians will now be able to make payments through UPI in these countries.
5. **UPI for G20 Nations and Common Wealth states:** RBI provides the service of UPI to international travellers from G20 member nations through 'UPI One World'. This service is available at three international airports, viz. Bengaluru, Mumbai, and New Delhi⁹. Eligible travellers are issued Prepaid Payment Instruments

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(PPI) wallets linked to UPI for making payments at merchant outlets across India. UPI wallets facility is also there for foreign tourists where they can use their debit or credit card to add funds to the wallet and use it locally for transactions in India with no commission fee. India has also offered to share UPI technology with other Commonwealth member countries.

• **Benefits of UPI at the International Level:**

According to the Ministry of External Affairs report, there are 32 million NRIs and PIOs residing outside India¹⁰. Indians comprise the world's largest diaspora. If part of this number is interested in saving or investing money in their homeland, easy transactions through UPI will help bring big foreign funds into our country which will be helpful for the economic development of our country. As per the Ministry of Tourism, 6.19 million Foreign tourists arrived in India in the year 2022¹¹. The availability of easy payment infrastructure in India for foreigners will improve their spending capacity while travelling. It will also help in boosting medical tourism as last year 3.04 lakh foreign tourists were in India only for medical purposes¹². It will also help foreign nationals who are coming to India for education or deputation jobs. More than 1.8 crore Indians travelled outside India between January 22 to November 22 (MHAs Bureau of Immigration)¹³. Such tourists visiting UPI-friendly countries for travel or education won't be reluctant to spend or have to tighten their hands while spending. International trade also becomes easy as there is a hassle-free payment mechanism from both sides. This will give merchants a big cross-border B2B and B2C market. At the macro level, it can also help Governments to encourage trading with easy payment mechanisms.

• **CONCLUSION**

UPI payments have revolutionised the way we give and receive money. It has thus reduced the dependence on the banking system. UPI to date has come up with two versions - the UPI and UPI 2.0. During the period various developments like digital payment through multiple channels and multiple account linkage, digital collection requests, autopay facility for recurring payments, better real-time dispute resolution mechanism, linking of Rupay credit card with UPI, UPI without Internet facility, linking with overdraft facility and connecting UPI services at cross borders have taken place gradually. Soon UPI 3.0 will be unveiled. The focus in this version will be on goods and service tax benefits to merchants, income tax benefits to the customers on digital payments, cash back incentives to merchants on the adoption of UPI QR, integrating UPI and digital wallets, and advancement on UPI without internet connectivity. Though UPI is a big game changer domestically, if UPI and Rupay gets successful in the future in breaking conventional methods of cross-border transfers then it can give tough competition to Visa and Mastercard. With the release of the Payments Vision 2025 document on 17 June 2022, RBI will push for the internationalization of UPI with nations using the United States dollar, Pound sterling, and Euro under bilateral treaties¹⁴. But still, there are many more challenges to the acceptance of UPI by other countries and whether UPI will be able to compete with the international networks and payment gateways remains to be seen.

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APPENDIX

List of Abbreviations

ATM	Automated Teller Machine
ASBA	Application Supported by Blocked Account
BHIM	Bharat Interface for Money
GPAY	Google Pay
IFSC	Indian Financial System Code
IPO	Initial Public Offer
KYC	Know Your Customer
MHAs Bureau	Ministry of Home Affairs Bureau
NPCI	National Payments Corporation of India
NIPL	NPCI International Payments Limited
NRI	Non- Resident Indian
NRO	Non-Resident Ordinary
NRE	Non-Resident External
PSP	Payment Service Providers
PIOs	People of Indian Origin
RBI	Reserve Bank Of India
UPI	Unified Payments Interface
UPI PIN	UPI Personal Identification Number