

# UPI's International Expansion: A New Era for Digital Payments

Priti Rani<sup>1\*</sup> and Kamlesh Rani<sup>2</sup>

<sup>1</sup>Ph.D. Research Scholar, Department of Commerce, Chaudhary Devi Lal University, Sirsa, Haryana, India. Email: priti<sup>phd</sup>2013@cdlu.ac.in

<sup>2</sup>Associate Professor, Department of Commerce, Chaudhary Devi Lal University, Sirsa, Haryana, India. Email: kamlesh@cdlu.ac.in

\*Corresponding Author

**Abstract:** UPI's popularity in India has progressively increased since its inception in 2016. India's Unified Payments Interface (UPI) has already changed the country's digital payment ecosystem. The rapid payments platform is now growing into new territories, including France, Sri Lanka, and Mauritius. The research made an effort to outline the UPI usage process in Bhutan, France, Mauritius, Nepal, Singapore, Sri Lanka, and the United Arab Emirates. The study explores the main elements influencing the Unified Payment Interface's (UPI) widespread adoption. Data for the study were acquired from secondary sources such as research publications, websites, and official sources like the National Payment Corporation of India (NPCI) and the Reserve Bank of India (RBI). The study emphasized the main elements propelling the worldwide expansion of UPI, including legislative backing, expanding international collaborations, and interoperability. The research elucidates that NIPL is vigorously advocating for the international adoption of India's UPI system, which is establishing novel benchmarks for digital transactions, augmenting citizen empowerment, improving economic prospects, and playing a significant role in India's growing prominence within the global financial landscape. This study intends to add to the continuing debate about how UPI and other real-time payment systems may transform digital finance, improve stakeholder engagement, and drive equitable economic growth throughout the world.

**Keywords:** Cross border impact, Global adoption, UPI, Worldwide adoption rate.

## I. INTRODUCTION

The Unified Payments Interface (UPI) has rapidly ascended to become the preeminent payment interface in India, propelled

by consumer demand for ubiquitous access and the extensive proliferation of mobile connectivity. UPI transactions are in a state of continuous innovation and development, transitioning from a framework for real-time person-to-person payment systems to accommodating a diverse array of additional person-to-person payment applications (Payment Innovation with UPI | GAVS Technologies, n.d.).

During a discussion at the G20 Digital Economy Working Group (DEWG) meeting held in Lucknow, Union Minister Ashwini Vaishnaw articulated on February 13, 2023, that India has established memoranda of understanding (MoUs) with thirteen nations aspiring to implement the UPI framework for digital transactions, and noted that Singapore has successfully finalized its integration with the UPI system.

These international collaborations have emerged as the NPCI International Payments Limited (NIPL) is establishing alliances with various nations to create an extensive acceptance framework for RuPay and UPI, thereby facilitating Indian travelers to execute transactions through these modalities in their respective countries of travel. NIPL was established in April 2020 as a wholly owned subsidiary of the National Payments Corporation of India (NPCI), dedicated to the implementation of RuPay and UPI beyond the borders of India (Unified Payments Interface (UPI) from India: Expanding Global Use, n.d.).

The ACI Worldwide Report 2024 states that India now accounts for approximately 49% of global real-time payment transactions as of 2023, highlighting India's leadership in digital payment innovation. With UPI's expanding international presence and the ongoing rise of digital transactions, India is setting new global benchmarks for financial inclusion and economic empowerment. In October 2024, the Unified Payments Interface (UPI) achieved a historic milestone by processing 16.58 billion financial transactions in a single month, highlighting its crucial role in India's digital transformation.

## II. REVIEW OF LITERATURE

Anand *et al.* (2024) [1] examined how India's UPI experience may be tailored to Indonesia's unique requirements and assessed how UPI might encourage credit creation, which in turn supports financial inclusion and economic expansion. To collect information on adoption rates, transaction patterns, and user attitudes, the author used both quantitative and qualitative methods. The report emphasized how the India-Indonesia Memorandum of Understanding (MoU) effectively facilitated the implementation of UPI by highlighting the successful launch of the Unified Payments Interface (UPI) in Indonesia.

Manickam (2025) [2] examined the Unified Payments Interface (UPI) ecosystem in India between October 2022 and October 2024, with emphasis on P2P (Peer-to-Peer) and P2M (Peer-to-Merchant) transactions, UPI apps, and the performance of UPI Payer and Payee Payment Service Provider (PSP). Interviews with important stakeholders, such as PSP representatives and end users, are used to acquire qualitative insights. The National Payments Corporation of India (NPCI) and the Reserve Bank of India (RBI) are the main sources of quantitative data in this mixed-methods approach. The data emphasized the growing use and dependence on digital payments by showing the exponential growth and changing UPI transaction environment in India over the course of three years.

Karmakar (n.d.) [3] examined how UPI affects financial inclusion and financial literacy, which are mediated by trust and financial stability. The research's methodology uses secondary data from a prior study that included 500 individuals with Pradhan Mantri Jan Dhan Yojana (PMJDY) accounts. Based on the findings, UPI has the potential to develop into a worldwide digital payment system that would help not just India but also other nations by enabling smooth transactions and encouraging financial literacy.

Baheti *et al.* (2024) [4] explored the global evolution of the UPI payment system, from its conception to its projected global influence. The study investigated the possibilities and major factors driving the future of UPI payments throughout the world. Secondary sources of data, such as research publications, were gathered to examine the difficulties and developments surrounding the worldwide adoption of UPI. Based on the findings, cooperation, flexibility, and regulatory support are essential for successfully introducing innovative payment forms (UPI) in various nations.

Bhauseheb Hase (2025) [5] identified factors that may jeopardize UPI's long-term viability and attempted to investigate future UPI applications beyond basic financial transactions. Based on the study, UPI's expansion beyond India has the potential to have a global impact and spur innovation in financial transactions. For UPI to grow sustainably, additional challenges such as data security and regulatory frameworks must be addressed.

Cornelli *et al.* (2024) [6] analysed the elements that led to the Unified Payments Interface's (UPI) success in India and its effects on the digital payments market. The study found that five important factors—easiness of development, ease of use, data protection, private sector partnership, and competent regulation—were responsible for the UPI's swift acceptance.

Kumar and Unnisa (2024) [7] investigated the Unified Payment Interface (UPI) ecosystem in India, shedding insight on the patterns and linkages between data consumption, digital transactions, and digital payments. For the study, data was acquired from the National Payments Corporation of India's (NPCI) official website. The findings suggest a significant association between internet users and data use patterns in India. Furthermore, the data show that UPI promotes financial knowledge and inclusion, hence contributing to economic growth.

## III. OBJECTIVE OF THE STUDY

- To study the UPI payment system's transition from domestic to worldwide.
- To explore the elements that influence worldwide UPI adoption.

## IV. RESEARCH METHODOLOGY

The study has been conducted using the exploratory research approach. To acquire a comprehensive grasp of UPI's worldwide adoption and the factors influencing its performance, the research approach includes systematically obtaining and evaluating pertinent data from several reliable sources. The NPCI (National Payments Corporation of India) provided the list of seven countries that the study specifically focused on because they accept international merchant payments at specific merchant outlets. These countries include Bhutan, France, Mauritius, Nepal, Singapore, Sri Lanka, and the United Arab Emirates. The necessary data was obtained from secondary sources, including websites, research journals, and official sources from the NPCI and RBI.

### A. UPI Global Acceptance

UPI, which was introduced by the National Payments Corporation of India (NPCI) in 2016, has completely changed the country's payment system by combining several bank accounts into a single smartphone app. UPI and RuPay are both quickly growing internationally, contributing to India's digital payments revolution. With operations in seven nations at the moment, UPI serves important in the UAE, Singapore, Bhutan, Nepal, Sri Lanka, France, and Mauritius (*Press Release: Press Information Bureau, n.d.-a*).



#### *UPI in Bhutan (13 July, 2021)*

In 2021, Smt. Nirmala Sitharaman, the Union Minister of Finance and Corporate Affairs, and Mr. Lyonpo Namgya Tshering, the Hon'ble Finance Minister of Bhutan, jointly introduced BHIM-UPI in Bhutan in a virtual event.

In collaboration with the Royal Monetary Authority (RMA) of Bhutan, NPCI International Payments Ltd. (NIPL), the global division of the National Payment Corporation of India (NPCI), introduced the payment system. The Finance Minister said that BHIM UPI is one of the best places to do digital transactions in India during the COVID-19 pandemic. In the last five years, over 100 million UPI QR codes have been created, and in 2020–21, BHIM UPI processed 22 billion transactions worth Rs 41lakh crore.

With the introduction of BHIM-UPI in Bhutan, the financial systems of the two nations are now smoothly integrated, which will help the many Indian visitors and business people who visit Bhutan every year. The BHIM App was the first mobile-based payment system in our immediate vicinity, and Bhutan was the first country to implement UPI standards for its QR implementation (*Press Release: Press Information Bureau, n.d.-b*).

#### *UPI in UAE (United Arab Emirates) (21 April, 2022)*

The National Payment Corporation of India's international division, NPCI International Payments Ltd (NIPL), has declared that BHIM UPI is now available at NEOPAY terminals throughout the United Arab Emirates. Millions of Indians who visit the UAE will be able to use BHIM UPI to safely and conveniently make payments thanks to this effort. Indian visitors may now easily make payments using BHIM UPI at merchant outlets and NEOPAY-enabled establishments in the UAE because BHIM UPI has been accepted there (*BHIM UPI Goes Live at NEOPAY Terminals in UAE, n.d.*).

To facilitate smooth cross-border transactions, India and the UAE reached an agreement in February 2024 to connect their national payment platforms, AANI (UAE) and UPI (India). The goal of the agreement is to make UPI a payment option for the more than 12 million Indian visitors who travel to the UAE annually. The objective of this effort is to improve financial connection between India and the United Arab Emirates and enable more effective payment procedures (*Worried About Payments in UAE? You Can Now Make Pay Using UPI in These Easy Steps, n.d.*).

#### *UPI in Singapore (21 February, 2023)*

On February 21, 2024, the Reserve Bank of India (RBI) and the Monetary Authority of Singapore (MAS) introduced cross-border connection between India's Unified Payments Interface (UPI) and Singapore's Pay-Now. Singaporean Prime Minister Mr. Lee Hsien Loong and Prime Minister Shri Narendra Modi presided over the ceremony.

On April 3, 2024, a two-year Memorandum of Understanding (MoU) was signed between the Singapore Tourism Board (STB) and financial giant PhonePe. The Memorandum of Understanding aims to encourage UPI transactions for Indian tourists visiting Singapore. This partnership strengthens the Unified Payments Interface (UPI) connection that already exists between Singapore and India.

As a major advancement in the cross-border payment infrastructure between India and Singapore, the UPI-Pay-Now link strongly aligns with the G20's financial inclusion goals. India, which gets the biggest remittances worldwide, has never had an association like this. Money transfers between the two countries may now only be performed via mobile devices thanks to this partnership. Through the connectivity, UPI applications like BHIM, PhonePe, and Paytm will be able to securely accept remittances from Singapore as of

2024 (*UPI and Singapore's PayNow - Your Complete Guide | Article – HSBC Business Go*, n.d.).

*UPI in France (2 February, 2024)*

NPCI International Payments Limited (NIPL), in collaboration with Lyra, a French pioneer in safeguarding e-commerce and proximity payments, announced the introduction of the Unified Payments Interface (UPI) payment mechanism in France, beginning with the famous Eiffel Tower. Indian travellers may now book their visit to the Eiffel Tower online using UPI, which makes the transaction quick, straightforward, and hassle-free. The official announcement was made in Paris during a ceremony hosted by the Indian Embassy to commemorate India's Republic Day. The announcement is of special relevance given that Indian tourists are the second largest group of international visitors to the Eiffel Tower.

In addition to offering Indian visitors a convenient way to make payments, France's acceptance of UPI creates a wealth of potential for businesses in the travel and retail industries throughout France and Europe (*UPI is Now Accepted in France*, n.d.).

*UPI in Mauritius and Sri Lanka (12 February, 2024)*

Hon'ble Prime Minister of India, Shri Narendra Modi, Hon'ble Prime Minister of Mauritius, Mr. Pravind Kumar Jugnauth, and Hon'ble President of Sri Lanka Mr. Ranil Wickremesinghe participated in the virtual inauguration of RuPay cards and Unified Payments Interface (UPI) connection between India and Mauritius, along with UPI connectivity between India and Sri Lanka.

An Indian visitor to Mauritius will be able to use UPI to pay a Mauritius merchant because of this connectivity. Likewise, a Mauritius traveler can use the Mauritius Instant Payment System (IPS) app to accomplish the same thing in India.

With Sri Lanka's digital payments connectivity, Indian tourists would be able to use their UPI applications to pay with QR codes at Sri Lankan merchant sites. Under the direction and assistance of the Reserve Bank of India, NPCI International Payments Limited (NIPL) have designed and implemented these initiatives in collaboration with partner banks and non-banks from Mauritius and Sri Lanka.

The partnerships between India and Mauritius and Sri Lanka on digital payments connection through UPI and RuPay would enhance financial integration and fortify India's long-standing cultural, historical, and economic ties with both countries (*Reserve Bank of India - Press Releases*, n.d.).

*UPI in Nepal (8 March, 2024)*

The largest payment network in Nepal, Fone Pay Payment Service Ltd., and NPCI International Payments Ltd. (NIPL), the international division of the National Payments Corporation of India (NPCI), announced on March 8, 2024, that the Unified Payment Interface (UPI) is now operational for cross-border transactions between India and Nepal. A new age of ease and efficiency has been brought in by the dramatic change in

cross-border transactions between inhabitants of both nations brought about by the integration of payment systems by NIPL and Fone Pay (*UPI is Now Accepted in Nepal Indian Citizens Can Seamlessly Conduct QR-Code-Based UPI Transactions in Nepal*, n.d.).

*Supported UPI apps for payment in Nepal*

1. PhonePe
2. Bhim

*B. Key Factors Driving UPI's Global Adoption*

The National Payments Corporation of India (NPCI), which runs UPI domestically, has established an international wing called NIPL to lead UPI's worldwide expansion. NIPL's main objective is to assist other nations in creating their own digital payments ecosystems by utilizing UPI as a model.

- *Government and Regulatory Support:* Regulators and policymakers in India, including the National Payments Corporation of India (NPCI) and the Reserve Bank of India (RBI), have shown a strong commitment to UPI. By 2028-29, NIPL (NPCI International Payments Limited) expects to have UPI available in 20 countries.
- *Growing International Partnerships:* UPI is being linked into foreign payment systems, including Singapore's PayNow and the UAE's digital payments. It allows users to make payments in the UAE, Singapore, Mauritius, Nepal, Sri Lanka, and France, with more nations set to join.
- *Cost-Effectiveness:* Compared to conventional payment methods like wire transfers or credit cards, UPI transactions are less expensive. Both individuals and businesses may take advantage of the cheap or no costs, which makes it more accessible.
- *Interoperability:* Multiple payment systems are no longer necessary thanks to UPI, which facilitates smooth transactions among banks and payment service providers. It permits integration with fintech companies and international financial institutions.
- *Real-Time Payments:* UPI reduces reliance on banking hours by enabling real time, 24/7 payments. Compared to conventional techniques, cross-border UPI integrations enable speedier remittances. The immediate payment characteristics of UPI align with the growing global need for faster and more convenient payment methods.
- *Ease of Use and Convenience:* Transactions across several applications are made easier via UPI. Customers may conduct transactions using any UPI-enabled app instead of being restricted to a particular bank's app, which simplifies the process and does away with the need for numerous accounts or applications.
- *Active Partnership of Private Sectors:* Despite end users having no transaction fees, UPI has seen strong private

investment. Alongside digital identity (Aadhaar), which has made it easier to create bank accounts that can link to the payment system quickly, these developments have played a significant role in broader efforts to develop digital infrastructure.

## V. CONCLUSION

In India and throughout the world, the Unified Payments Interface (UPI) has become a disruptive force in the digital payment space. The potential of UPI to streamline international transactions and improve the payment experience for users overseas is highlighted by the recent agreements with 13 countries, including the successful integration in Singapore. This development helps companies streamline their payment procedures and benefits customers alike, which eventually makes the world economy more integrated.

Governments and financial institutions must work together to foster an environment that supports UPI's expansion as it continues to gain momentum on a global scale. In a nutshell, UPI is positioned as a major role in the future of digital payments globally thanks to its strategic alliances, affordability, real-time capabilities, and user-friendly design. The continuous attempts to incorporate UPI into different foreign markets will probably keep changing the way that payments are made throughout the world. UPI's future seems bright as it keeps growing in popularity and power inside the global payment system.

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