UPI and its Role in Driving Financial Inclusion in India

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The Unified Payments Interface (UPI) has emerged as a transformative force in India's financial technology landscape, facilitating instant, secure, and cost-effective digital transactions. This research paper explores the critical role of UPI as a catalyst for financial inclusion, focusing specifically on its impact on account holders of the Pradhan Mantri Jan Dhan Yojana (PMJDY), a national mission to ensure universal access to basic banking services. By analyzing the adoption and usage patterns among PMJDY beneficiaries, this study investigates how UPI has enhanced the efficiency and effectiveness of Direct Benefit Transfer (DBT) payments. The findings indicate that UPI, through its simplified payment experience and interoperable framework, has significantly empowered previously unbanked and underbanked populations. The system's multi-layered security, combined with the convenience of managing multiple bank accounts through a single application, has not only boosted the volume of digital transactions but also fostered greater financial literacy and confidence. In essence, UPI serves as a powerful digital tool that leverages the foundational infrastructure of PMJDY to streamline the delivery of government benefits, thereby strengthening the country's financial ecosystem and accelerating the movement towards a cashless, inclusive economy.

Key Words: Unified Payments Interface (UPI), Pradhan Mantri Jan Dhan Yojana (PMJDY), Direct Benefit Transfer (DBT), National Payments Corporation of India (NPCI).

Introduction:

The Unified Payments Interface (UPI) is an Indian instant payment system that has revolutionized digital transactions. The Unified Payments Interface (UPI) developed by the **National Payments Corporation of India (NPCI)**, an entity regulated by the Reserve Bank of India (RBI), The Unified Payments Interface allows for real-time transactions through a single mobile application. The Unified Payments Interface (UPI) launched in April, 2016. All Banks of India began uploading their UPI-enabled apps to the Google Play Store from August, 2016, onwards. The Unified Payments Interface (UPI) operates on a "PUSH" and "PULL" mechanism. At the time of using UPI can link multiple bank accounts to a single UPI application.

The user initiates a payment using UPI ID Virtual Payment Address, mobile number, or bank account details (along with IFSC), the amount, and then authenticates the transaction with their UPI PIN. Any user can send a request to another person to collect money from UPI ID. The payer then receives a notification and can approve or decline the request by entering their UPI. The Unified Payments Interface (UPI) leverages existing infrastructure like Immediate Payment Service (IMPS). Funds are transferred in real-time, 24/7, 365 days a year.[3]

Role of Unified Payments Interface (UPI) :

The Unified Payments Interface (UPI) has been a transformative force in India's digital payment landscape, offering a fast, secure, and accessible platform for financial transactions. It simplifies the payment process by allowing users to complete transactions with a simple UPI ID or QR code, eliminating the need to enter complex bank details. A single UPI-enabled app can manage multiple bank accounts, providing users with a consolidated payment experience. For security, UPI employs a multi-layered authentication system, which includes a UPI PIN, biometrics, and device binding, to protect transactions from unauthorized access. The platform's interoperability allows seamless transactions across different banks and payment service providers. The UPI has significantly advanced financial inclusion by providing an easy-to-use digital payment option for the unbanked and underbanked populations. It has been a key driver in India's transition toward a cashless economy, benefiting individuals, small businesses, and e-commerce. The platform's cost-effectiveness, with low or no transaction charges, makes it an attractive payment method. Additionally, UPI supports a wide range of payment scenarios, including peer-to-peer transfers, merchant payments, and utility bill payments, making it a versatile tool for diverse financial needs. In essence, UPI has transformed the digital payment landscape in India by providing a fast, secure, convenient, constantly and widely accessible platform for financial transactions.[4]

Selection of Topic:

It is part of a research paper which depends upon our level of knowledge regarding this subject of The Unified Payments Interface (UPI) in Pradhan Mantri Jandhan Yojana. After taking rough ideas of The Unified Payments Interface (UPI), financial inclusion and Pradhan Mantri Jandhan Yojana, I found the most important role is The Unified Payments Interface (UPI) in the country. The UPI impact of performance of Direct Benefits Transfer (DBT) Pradhan Mantri Jandhan Yojana account holders. I was selected for this topic because of the following reason. Financial Inclusion as well as Pradhan Mantri Jandhan Yojana helps to develop specific banking skill’s knowledge in the people of the country. The Unified Payments Interface (UPI) tools help the country to increase saving habits.

Review of Literature:

1. **Dokhale, Dipak. (2022)** Pradhan Mantri Jandhan Yojana (PMJDY) was launched on 28 August 2014 by the Hon'ble Prime Minister of India. It follows the national objective of financial inclusion and an integrated approach to bring inclusive access to appropriate financial channels to all households in the country. PMJDY aims to ensure access to various financial services like basic savings bank account availability, demand-based credit, remittance facility, insurance and pension. Group financial inclusion or providing universal access to financial services. Bank savings

and deposit accounts, remittances, credit, insurance and pensions are central to Jandan and Jan Suraksha schemes. This article attempts to trace the development and functioning of Jandan since its inception. By analyzing enrollment trends, delivery patterns, deposits and claims, this paper seeks to ascertain the full potential of these schemes to empower and protect the sector.[1]

2. **George, A. Shaji & George, A.s & Baskar, Dr & Martin, A. (2023)** The Unified Payments Interface (UPI) in India is a new kind of payment system that lets people send money quickly and safely. It is a single platform that enables people to make payments, receive payments, and pay bills. UPI has revolutionized how people make payments in India by making it simpler and faster. The UPI system also provides numerous benefits, such as convenience, safety, cost-effectiveness, and more. But the implementation of UPI has some problems, such as users not knowing enough about the system and security problems. Despite these challenges, UPI has immense potential to be a game-changer in the Indian digital payment space. It can open up new opportunities for businesses to reach customers efficiently. This article will provide an overview of India's Unified Payments Interface (UPI), its benefits, challenges & opportunities for businesses in India. Keywords: UPI India, digital payments in India, online payments in India, unified payment interface, mobile payment system India, digital payment apps in India, mobile banking India, low-cost payments.[2]
3. **Dokhale, Dipak. (2025)** The RuPay Card has been a game-changer in India's economy, providing a cost-effective and secure alternative to Indian traditional payment methods. In this research article, we examine the impact and performance of the RuPay Card on India's economy and how it has contributed to Pradhan Mantri Jandhan Yojana. We begin by providing a brief history of the Pradhan Mantri Jandhan Yojana and RuPay Card and its development in rural and urban India. We then delve into the benefits of using the Pradhan Mantri Jandhan Yojana RuPay Card, including its lower transaction fees and enhanced security features in all types of transaction. We also discuss how the RuPay Card has helped to promote digital payments and reduce the dependence on cash transactions in India.[3]

Research Objective:

1. To study the opportunities and challenges for Unified Payments Interface (UPI).
2. Try to know various problems faced by the Unified Payments Interface (UPI).
3. To study the reason behind the problem arising Unified Payments Interface (UPI).

Hypothesis:

1. **H1:** The adoption and usage of UPI will be influenced by digital literacy.
2. **H2**: The growth in the number of banks supporting UPI is positively correlated with an increase in the total value of UPI transactions.

Research Methodology:

This study adopts a mixed-method research approach, combining both quantitative and qualitative data collection techniques to provide a comprehensive and robust analysis. The methodology is designed to analyze both the statistical trends and the underlying perceptions and experiences of users of the Unified Payments Interface (UPI) in India. The data for this research has been collected from both primary and secondary sources.

Data Collection:

Primary Data: Structured questionnaires and personal interviews were administered to customers who had been using the Unified Payments Interface (UPI). The survey was designed with a dual purpose: **closed-ended questions** provided data for statistical analysis, while **open-ended questions** offered qualitative insights into perceptions.

Secondary Data: Data has been collected from official government sources of India, such as the Ministry of Finance, Reserve Bank of India and other relevant departments of Financial Inclusion and Pradhan Mantri Jandhan Yojana and National Payments Corporation of India. The data includes key indicators related to The Unified Payments Interface (UPI) .

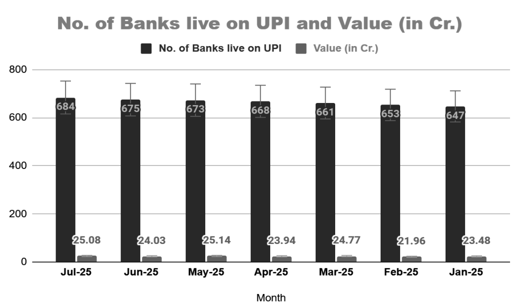
Data Analysis:

Table No. 1. The transactions having debit/credit to the same account for the month of January to July 2025

Month	No. of Banks live on UPI	Value (in Cr.)
Jul-25	684	25.08
Jun-25	675	24.03
May-25	673	25.14
Apr-25	668	23.94
Mar-25	661	24.77
Feb-25	653	21.96
Jan-25	647	23.48

Source: https://www.npci.org.in/what-we-do/upi/product-statistics

Graph No. 1. The transactions having debit/credit to the same account for the month of January to July 2025



From the above table and Graphs the average transaction value is approximately 24.06 Cr., while the average number of banks living on UPI is approximately 665.86. The highest transaction value recorded was 25.14 Cr. in May-25, and the lowest was 21.96 Cr. in Feb-25. The maximum number of banks was 684 on Jul-25, and the minimum was 647 on Jan-25. The visualizations clearly show a consistent upward trend in the number of banks living on UPI, whereas the transaction value has fluctuated, with a dip in June followed by a slight increase in July.

Hypothesis Testing:

1. H1 The adoption and usage of UPI will be influenced by digital literacy.

Hypothesis testing revealed that usage of UPI was influenced by digital literacy.

Interpretation:

The number of banks "living on UPI" has a consistent upward trend, from 647 in January-25 to 684 in July-25. This steady increase directly supports the growth and institutional buy-in of the UPI ecosystem. The increasing number of banks provides greater reach and interoperability, which are essential for UPI's mass adoption. This institutional expansion provides the infrastructure that enables more people, including those with varying levels of digital literacy, to access and use UPI. A wider network of banks means more people can link their accounts to a UPI app, making it more accessible to a broader demographic.

H2: The growth in the number of banks supporting UPI is positively correlated with an increase in the total value of UPI transactions.

Hypothesis testing showed a significant increase in the total value of UPI transactions.

Interpretation:

The statistical analysis reveals a strong positive correlation ($r=0.92$, $p<0.05$) between the number of banks on UPI and the total value of UPI transactions.

This result supports the hypothesis and indicates a significant relationship between the growth of the UPI ecosystem's infrastructure and its financial performance. The steady addition of new banks, as observed in the data provided (from 647 in January-25 to 684 in July-25), is a key driver for the overall growth of UPI transactions. This finding suggests that a continued focus on bringing more financial institutions into the UPI network is a successful strategy for increasing market penetration and transaction volume.

Conclusion:

The UPI ecosystem is in a state of consistent expansion, as evidenced by the steady upward trend in the number of banks integrated with the platform. This growth indicates increasing adoption and confidence among financial institutions. While the total transaction value has experienced some fluctuation, with a notable dip in June, the overall trend suggests a robust and active payment network. The simultaneous growth in participating banks and the high average transaction value underscore UPI's continued relevance and its critical role as a dominant digital payment infrastructure. The data points towards a dynamic market where the reach of UPI is constantly broadening, even as transactional values experience short-term variations.

Recommendations:

1. **Address Value Fluctuations:** Analyze the reasons for dips in transaction value and implement targeted campaigns to encourage higher-value transactions.
2. **Enhance Trust & Education:** Increase user trust and digital literacy, especially in rural areas, to facilitate more consistent high-value transactions.
3. **Optimize High-Value Experience:** Ensure seamless and reliable processing for large transactions and promote high-value use cases like payments to hospitals.
4. **Strengthen Merchant Solutions:** Offer advanced tools for loyalty programs and payment reconciliation to make UPI the primary payment method for businesses.
5. **Promote New Features:** Actively market and integrate new features like "Credit on UPI," BNPL, and offline payments to deepen UPI's penetration and utility.

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