

**IMPACT OF UNIFIED PAYMENTS INTERFACE ON BANKING SECTOR  
AND INDIAN ECONOMY**

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(Received:10November2020/Revised:20November2020/Accepted:10December2020/Published:25December2020)

**Abstract**

Digital banking involves transforming traditional banking activities like account opening, fund transfers, and payments into digital formats that can be accessed remotely. In 2016, the GOI initiated the implementation of the Unified Payment Interface (UPI) System and BHIM, developed by the National Payments Corporation of India (NPCI). This marked the beginning of a transformative era in mobile banking, aiming to enhance convenience and security of transfers by enabling multiple bank accounts within a single mobile platform. The origin of the UPI network can be traced back to 2006, when the Reserve Bank of India (RBI) and the Indian Banks' Association collaborated to establish the National Payments Corporation of India (NPCI).

The objective of establishing an umbrella organization for digitalizing retail payments in India was to provide a public good to the population. This nonprofit company aims to facilitate the adoption of digital financial infrastructure, which is important for economies at all stages of development. In India, financial technology companies have collaborated with established banks to offer a wide range of digital banking services. The Reserve Bank of India has stated that the banking sector in India is well-capitalized and effectively regulated, and research shows that Indian banks have demonstrated resilience and weathered the global economic downturn. Overall, the financial and economic conditions in India are superior to those of other countries.

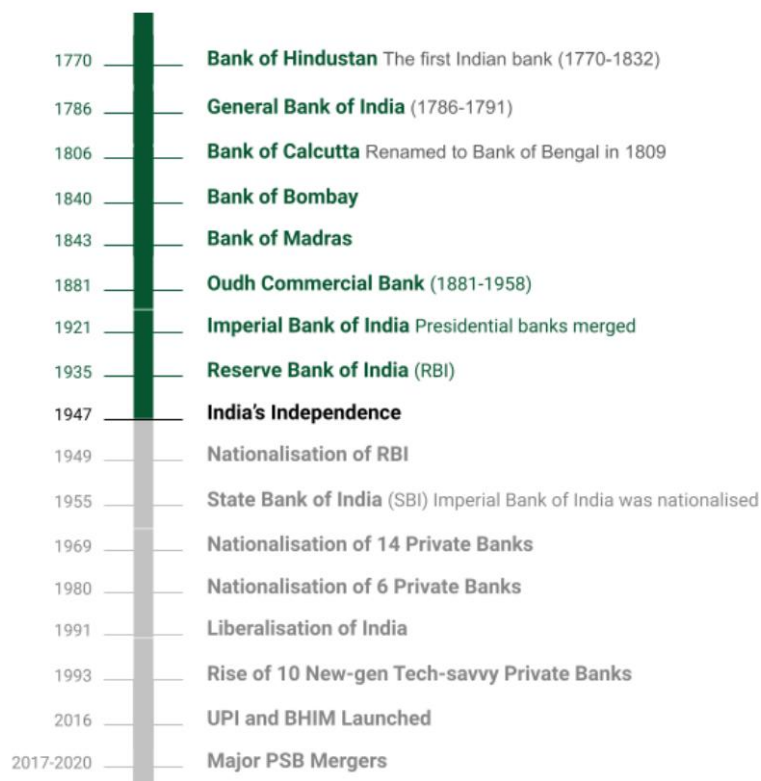
**Keywords: UPI, Reserve Bank of India, Digital Banking, Banking Sector**

The banking system is widely regarded as having a long history, dating back to ancient civilizations, and this holds true for the banking system in India as well. Prior to delving into

the evolutionary trajectory of banking in India, it is imperative to first examine the global banking landscape. Presented here is a concise video that effectively portrays the evolutionary trajectory of the banking industry, incorporating elements from prehistoric and mythological contexts as a tribute to the inquisitive and imaginative nature of our ancient forebears.

The banking system plays a crucial role in fostering the economic development of a nation. The banking sector in India has undergone significant transformations over the past five centuries, driven by factors such as the economic condition of individuals, the demand for financial services, and subsequent technological advancements. It is imperative to comprehend the various classifications of banking systems in India.

It's interesting to track the history of the banking system in India.



Digital banking refers to the process of transforming traditional banking activities, such as account opening, fund transfers, and payments, into digital formats that can be accessed remotely, eliminating the need for physical visits to a bank branch.

In 2016, the Government of India (GOI) initiated the implementation of the Unified Payment Interface (UPI) System and BHIM, developed by the National Payments Corporation of India (NPCI). This marked the commencement of a transformative era in digital payments commonly referred to as mobile banking.

The creation of the Unified Payments Interface (UPI) was a direct reaction to the fragmented and cumbersome system of regulations and administrative procedures governing payments in the country. The objective was to enhance the convenience and security of transfers by enabling the inclusion of multiple bank accounts within a single mobile platform, catering to both individual and business users. It quickly reached maturity.

The origin of the UPI network can be traced back to 2006, when the Reserve Bank of India (RBI) and the Indian Banks' Association collaborated to establish the National Payments Corporation of India (NPCI).

The primary objective was to establish an umbrella organisation dedicated to facilitating the digitalization of retail payments. This entity was established as a nonprofit company with the aim of offering a public good to the population of India. According to a 2019 publication by researchers<sup>2</sup> at the Bank for International Settlements, the provision of digital financial infrastructure through a public good approach holds significance for economies at all stages of development.

In light of technological progress, numerous financial technology companies in the nation have elevated the practise of digital banking by collaborating with established banks to offer a diverse range of financial services.

According to the Reserve Bank of India (RBI), the banking sector in India exhibits adequate capitalization and effective regulation. The financial and economic conditions in the country exhibit a level of superiority that surpasses that of any other nation globally. Research on credit, market, and liquidity risk indicates that Indian banks have demonstrated overall resilience and have effectively weathered the global economic downturn.

In recent times, the Indian banking sector has observed the introduction of pioneering banking models such as payments and small finance banks. In recent years, India has placed significant emphasis on expanding the accessibility of its banking sector. This objective has been pursued through the implementation of several initiatives, such as the Pradhan Mantri Jan Dhan Yojana and the establishment of Post payment banks. Initiatives such as these, in conjunction with substantial reforms in the banking sector encompassing digital payments, neo-banking, the emergence of Indian non-banking financial companies (NBFCs), and financial technology (fintech), have notably bolstered India's financial inclusivity and contributed to the stimulation of the credit cycle within the nation.

Among a group of 25 countries, the digital payments system in India has demonstrated the most significant advancements. Notably, India's Immediate Payment Service (IMPS) stands alone as the sole system ranked at level five in the Faster Payments Innovation Index (FPII). In recent years, the Unified Payments Interface (UPI) in India has brought about a significant transformation in the realm of real-time payments and has made concerted efforts to expand its global presence.<sup>3</sup>

The Unified Payments Interface (UPI) is a technological platform that facilitates swift and cost-free transfers between bank accounts through the utilisation of financial technology applications like PhonePe or Google Pay. According to Praveena Rai, the Chief Operating Officer of the National Payments Corporation of India (NPCI), the Alipay platform in China differs from its Indian counterpart in terms of openness. Unlike Alipay, the Indian platform allows users the freedom to switch between different companies and transfer their financial history to competing platforms. The NPCI is responsible for managing this open platform. Furthermore, this process is facilitated through the utilisation of QR codes or easily memorable virtual identification numbers.

The UPI has garnered global attention. Sundar Pichai, the Chief Executive Officer of Google, has expressed admiration for the achievements of India in the areas of Unified Payments Interface (UPI), Aadhaar, and the payments stack. In the year 2020, a total of 3400.25 Crore transactions were recorded.<sup>4</sup>In September 2020, total number of banks live on UPI platform is 174, total number of transactions 1800 million which is in value of ₹329027 crores.<sup>5</sup>The government's unexpected "demonetisation" measure in 2016, which involved the discontinuation of several high-denomination banknotes, provided significant support to this phenomenon. UPI experienced a positive impact as a result of consumer apprehension towards cash during the COVID-19 pandemic. According to Prime Minister Narendra Modi, India has achieved a significant milestone by emerging as the global leader in real-time digital payments, accounting for nearly 40% of all such transactions.

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An opportunity of greater magnitude than efficiency is the potential to significantly enhance the pace of development. According to Raghuram Rajan, a former governor of the Reserve Bank of India (RBI), digital payments have the ability to generate instantaneous data

regarding the commercial activities of sellers and the purchasing patterns of buyers. This enables lenders or insurers to engage with customers who may lack a substantial financial background or sufficient assets to partake in conventional financial systems. According to Patrick Collison, the co-founder of Stripe, a prominent payments company, the societal value of providing credit increases as the creditworthiness of the borrower becomes less transparent.

### **Innovative, Inclusive And Individualistic**

The process of making and receiving payments is streamlined and personalised, requiring only a single click or swipe on the user's preferred application. The user interface and user experience (UI/UX) have been improved and streamlined to facilitate widespread adoption.

It is important to acknowledge that the foundational infrastructure of the Immediate Payment Service (IMPS) has played a crucial role in the significant achievements of the Unified Payments Interface (UPI). The utilisation of a UPI ID in lieu of bank account numbers and IFSC codes has significantly streamlined transactions, rendering them more convenient. The incorporation of the Bharat Bill Payment System (BBPS) for the purpose of recurring bill payments has played a pivotal role in the development of an inventive platform.

The inclusivity of UPI extends beyond the confines of a single application. The leading UPI applications that contribute to the expansion of the market include GooglePay, Paytm, and PhonePe, with the recent addition of WhatsappPay and AmazonPay, further intensifying the competition. The UPI's interoperability is evidenced by the seamless ability of users to engage in immediate money transfers and receipts with any other participant within the UPI system subsequent to their registration.

A limited number of countries, such as the United States, possess a national payment network that facilitates immediate settlement.

Security is a fundamental aspect of UPI, characterised by its robust and sophisticated measures. UPI offers a robust and dependable system for ensuring comprehensive security and safeguarding of data throughout the entire process. The UPI platform employs robust security measures, requiring users to initially register by linking their mobile number, which must already be registered with the bank. The Reserve Bank of India's implementation of Know Your Customer (KYC) requirements enhances the platform's robustness.

### **Major Factor Driving Growth**

The digital landscape and connectivity in India encompass a substantial number of active internet users, totalling 692 million individuals. This figure includes 351 million users from

rural areas and 341 million users from urban areas. According to a report published by The Internet and Mobile Association of India, it is projected that the number of internet users in India will reach approximately 900 million by the year 2025. Government initiatives such as PM-WANI and BharatNet, along with Jio's transformative impact on internet connectivity, have provided Indians with access to high-speed internet and affordable tariff plans. The current estimation suggests that approximately 346 million individuals in India are actively involved in digital transactions, encompassing activities such as online payments and e-commerce.

**The cost of hardware:** A decade ago, the accessibility of smartphones posed a significant obstacle. However, recent developments in the smartphone industry have led to a disruption, resulting in a substantial increase in the number of mobile phone owners, reaching 1 billion in 2020. Based on a report published by Deloitte, it is projected that India will witness a substantial increase in smartphone users, reaching a total of 1 billion by the year 2026. Notably, the growth in smartphone adoption is expected to be primarily driven by rural provinces within the country.

The Indian government is potentially considering implementing incentives for domestic smartphone manufacturers, specifically targeting devices priced around Rs 12,000, as a means to safeguard them against economic aggression from China. It is worth noting that affordable smartphones play a crucial role in facilitating India's financial revolution. Government policies refer to the set of rules, regulations, and actions implemented by a governing body to address societal issues and achieve specific objectives. India's strategic implementation of a Digital Payment Ecosystem and extensive outreach campaigns have positioned it as a prominent player in the global digital landscape. Various schemes such as the Aadhaar Enabled Payment System, FASTag, Rupay, and IMPS have effectively streamlined payment processes. Additionally, initiatives like the DIGIDHAN Mission have played a crucial role in advancing digital transactions, including digital payments. The number of Jan Dhan accounts has witnessed a substantial rise since 2015, thereby facilitating the achievement of Financial Inclusion objectives and enhancing the efficacy of Direct Benefit Transfer mechanisms.

The Merchant Discount Rate (MDR) is of significant importance in the strategic decision-making process of a company when considering the integration of a payment gateway. The Merchant Discount Rate (MDR) refers to the proportion or percentage of the transaction value that is remitted to the payment gateway by the merchant. In the case of commonly used

payment methods such as cards and digital wallets, the prevailing MDR is generally estimated to be approximately 1.8%. The Merchant Discount Rate (MDR) for UPI transactions is set at zero. This implies that upon a customer's purchase of Rs 100 via UPI, the business obtains the complete amount of Rs 100.

To conclude this research the researcher analysed that after the introduction of UPI and NPCI, Indian banking sector and Indian economy saw a boost in electronic transactions and use of cash as a medium of transaction is getting low and UPI is getting popular day by day which is good for the development of Indian economy.

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