Unified Payment Interface: A Unique Payment Interface in the Universe - Secondary Data Analysis

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ABSTRACT

The country's payment system has undergone numerous significant changes, thanks to the Unified Payment Interface (UPI), which has eventually spurred economic growth. Life has become easier with UPI's existence. It significantly accelerates India's transition to a cashless economy as it helps to protect the environment by going greener, to improve the quality of life by embracing technology, and to create more jobs that initiate open many FinTech and Startups that lead to economic sustainability. India serves as the poster child for instant payments and an epitome of how a concerted, widespread, national endeavour may unleash enormous economic and social potential. It is an innovative online financial product in India that has reached heights of popularity within a short span (Deshpande, 2021). Our honourable Prime Minister Mr. Narendra Modi shared our country's experience with UPI at the G20 summit by describing it as a "path-breaking digital payment platform", which could become a template for digital payments to other nations. In this background, this study attempts to perceive the progress of this platform which enlightens us about its significance and to know about its present status. The study has employed the descriptive method by using secondary data from various scientific articles, relevant reports, records, books, published data, and journals to analyze the pathway of UPI's progress by glorifying its uniqueness, the rationale of its evolution, and the challenges confronted to positively disrupt the sustainability of this product.

Keywords: UPI, digital payments, payment ecosystem.

INTRODUCTION

Catering comprehensively to society, UPI enables anyone to accept digital payments, even small company owners and street vendors, simply by scanning a QR code. With its streamlined payment system and secure information storage, UPI helps to tackle corruption (Vishnoi, 2021). India has found itself at the epicentre of digital payment innovation, driven by e-commerce, consumer behaviour, progressive government approaches, and the global pandemic. The UPI industry in India has successfully changed the future of digital payments in India, over the span of just six years. The Government of India is leaving no stone unturned to make India a global leader in the arena of digital payment systems and help it attain the status of one of the most efficient payment markets in the world (PIB, 2022). It is the flag-bearer of the ongoing Financial Revolution and becomes a catalyst in the payment sector. The progressive advancement of UPI has not just constructed an efficient payment instrument, but it has connected millions on an inclusive and well-structured digital platform. The success of UPI is covered just by 3 of its features: Innovative by making different add-on services according to the changing needs of society, Inclusive by aiding Digital India, and Individualistic by providing a simple, secure, and convenient-to-use platform.

India is presently one of the world's fastest-growing economies. Digital banking and payments are essential drivers to assure high economic efficiencies, generate a higher marketing strategy for all stakeholders, and establish a stable climate for financial inclusiveness (Umesh Chandrasekar, 2017) that may support socio, economic and environmental sustainability in the payment ecosystem.

OBJECTIVES

1. To assess the present status of the Unified Payment Interface.
2. To compare the UPI with other digital payments.
3. To comprehend the challenges involved in UPI and to provide suggestions to overcome the challenges.

WHY IS UPI CALLED A UNIQUE PAYMENT SYSTEM?

Unified Payment Interface is undeniably a Unique Payment Interface that serves as a platform for use by banks, non-banking financial institutions, and fintech apps on an equal footing. It stands out from other payment systems by allowing transfers between bank accounts through a single window. Sharing or using bank details, which are considered
the most sensitive information, are no longer needed for transferring the payment; instead, merely a Virtual Payment Address (VPA) is sufficient. UPI, the brainchild of the National Payment Corporation of India (NPCI) is not just simple but instantaneous too with no or bear minimum charges. It is quite distinct by ‘UPI Collect Request’ which enables the user to initiate a collect request with its UPI ID.

ANNALS OF UPI

UPI was modestly established to provide an online digital platform that would eliminate socioeconomic and governmental barriers to financial transactions to provide everyone with equal access to banking services, including small Kickstarter enterprises and international banks. It is crucial to remember that UPI handles a wide range of tasks in the financial sector. Straightforward peer-to-peer financial transactions go off without a hitch. Complex operations like combining financial features from various institutions, micro pensions, and digital insurance are also performed with ease.

Minimalist interface and user-friendly experience are the two key pillars of UPI which makes it not just limited to Urban India but also successfully spread across Rural Bharat. UPI has shown tremendous growth in terms of the number of users, number of live banks, value of transactions, and volume of transactions (Source: NPCI). The COVID-19 pandemic (Saha, 2022), the Digital India project (Economic Survey, 2023) demonetization, cheap internet, no MDR cost, and no or minimum transaction charges are the primary reasons for the growth of UPI. But government intervention, NPCI efforts, and RBI support are to be considered in UPI growth. UPI is currently a favoured method of payment for P2M transactions, despite first being utilised for P2P transactions. Due to its innovative features, less complex nature, and trending growth, UPI has proven to be the most favoured method of transaction preferred by youth (Fahad, 2022).

From the chronicles, it is intelligible that a substantial, secure, efficient, and scalable public digital infrastructure has been developed in India, setting the foundation for a potent, significant "Digital Payments Revolution” on a worldwide scale.

RECENT INNOVATIONS IN UPI:

UPI 2.0 was launched to enable users to link their overdraft accounts to the UPI handle. One can schedule one-time and regular payments, such as monthly bills, utility bills, EMIs, insurance premiums, SIPs, mortgage payments, subscription fees, and all other repeating payments, with the aid of autopay facilities. According to the CISCO report, two out of every three users are anticipated to have a mobile phone by 2023, while one out of two users will have a smartphone. According to the report, there are a greater number of feature phone users. To include them in digital banking, UPI has created UPI Lite, a digital wallet, which enables feature phone users to access UPI services. Since one cannot monitor the status of payment received immediately through a static QR code, dynamic QR codes are introduced by UPI which are dynamic in nature and change with each transaction. Merchants will have control over that order or transaction. The major issue with UPI is no transaction or MDR cost or bearing the minimum cost for the UPI activity. Though it benefits users and merchants, banks are facing trouble in maintaining their infrastructure without such cost. Further, UPI has a higher proportion of low-value transactions and so bankers discern themselves as a real scapegoat in UPI growth. To overcome this issue, NPCI has introduced UPI Lite, a digital wallet, in which users can store some money in it, and can be used for low-value transactions that won’t disturb the remitter’s bank. The major stepping-stone of UPI is the linkage of credit cards to their UPI account as the cards attract the highest MDR of 2-3 percent. UPI has become the most inclusive mode of payment with over 26 crore unique users and 5 crore merchants on the platform (RBI report, 2022).

UPI is considered an upheaval in the payment ecosystem which is a made-in-India product that can be termed India’s innovation for the Universe.

LITERATURE REVIEW

UPI will change the way we are transacting now and transform into digital payments where each person’s smartphone will be the primary device for all payments (Kakade, 2017) which will lead to a transparent system and cashless economy. UPI leads to digital empowerment through its simplicity and ease of use and the system will have high growth due to its unique characteristics from other payment systems (Sathishkumar, 2018). Customers obviously have such a positive attitude towards unified payment interface services, and there is a correlation between various UPI services’ aspects and customer satisfaction. However, the difficulties associated with establishing UPI are a lack of e-literacy and the complexity of its operations (Suresh Kumar, 2020, Sunny Gupta, 2020). The major drivers which support the sustainability of the UPI platform are accessibility to the technology, convenience, cost-effectiveness, and citizens’ voluntary exclusion in financial inclusion that is influenced by financial literacy which impacts financial inclusion (Sailesh Rastogi, Et.al, 2021). Social Engineering Attacks are possible with UPI and emotional factor alone
decides the depth of attack plans and have nothing to do with age and profession (Kalyani Deshpande, Et.al, 2021). UPI users are highly satisfied, and they recommend others to use the same despite relative advantage, complexity, and observability as major determinants (Fahad, Et.al, 2022).

RESEARCH METHODOLOGY

The study has adopted a descriptive approach and collected data from various secondary sources through existing literature, relevant reports, pertinent records, journals, published data, and books. Data were analysed by using tables and charts to get insight into the topic and comprehend the way UPI helps in economic sustainability and identify the challenges that are faced by it.

PRESENT STATUS OF UPI IN INDIA

India's financial inclusion, governance, and quality of life have all been significantly improved by the country's digital payments infrastructure. UPI has contributed its might in making our country one of the fastest-growing digital economies in the world.

Analysis of UPI data

UPI was launched in August 2016 for public use by the NPCI under the guidance of the Reserve Bank of India after the completion of its pilot study which was initiated in April 2016. Started with 21 live banks during its inception, the progression of bank inclusion is incredible and at the end of March 2023, the number of live banks with UPI is 390. The number of live banks is rising exponentially which shows that the adoption interest of the users and merchants is huge toward UPI.

Source: NPCI

Analysing the data based on the value of transactions and volume of transactions becomes imperative to understand its growth and the study attempts the same with the data collected from NPCI.

Source: NPCI
The volume of transactions was 0.2 crores at the end of 2016 and continued to climb; by the end of 2022, it had reached 782.9 crores. With a volume of 803.7 crores, an all-time high record was set at the end of January 2023. Yet February 2023 experiences a decline, and the logical and practical explanation for this decline is that there are fewer days in that month. Now, 870 crore transactions are conducted over UPI as of March 2023.

Source: NPCI

DIGITAL INDIA and UPI

With the help of JAM (Jan Dhan, Adhaar, Mobile) by Digital India, financial inclusion has been increasing, leading to an increase in the value of transactions.

By opening 18,096,130 Jan Dhan bank accounts between Aug 23 to 29, 2014, as a part of the Financial Inclusion Campaign, the Department of Financial Services, Government of India has entered the Guinness Book of World Records.

Aadhaar considered the world’s largest biometric system has UIDAI (Unique Identification Authority of India) as a statutory body that issued 1.3 billion Aadhaar cards so far.

A total of 1.10 billion cellular mobile connections were active in India in early 2023 (Source: DataReportal), with this figure equivalent to 77.0 percent of the total population.

Thus, the combination of the Jan Dhan accounts, the Aadhaar identity infrastructure, and the proliferation of mobile phones have thus been the primary driving force.

UPI and its Geographical Dominance


Source: Worldline Report, 2023

From the Worldline Report, 2023, the study finds that all 5 states of South India are in the top 10 list of UPI usage, and while examining the top cities of UPI usage, 4 out of 10 cities are from South India of which 3 cities ranked in the first 3 places from which one can comprehend that users from South India are adopting the UPI more.
COMPARING THE DIFFERENT PAYMENT SYSTEMS ACROSS INDIA

The information from the report by Statista, 2023, makes it abundantly evident that in 2022, UPI was used for more than half of the payments. Even PPI (Prepaid Payment Index), which is recognised as the second-best payment system, has a rate that is more than 7 times lower than UPI: just 7.44%. Research demonstrates that UPI is positively connected with user adoption, contentment, and intent to stick around.

The table above portrays a clear picture of the tremendous expansion in UPI payments in terms of volume as there is a rise in digital payments. The percentage of UPI payments indicates the aggressive expansion of digital payments, which are expanding at an exponential rate. This may be a result of the government's goal for a cashless economy, the ease with which technology is now available, the lower cost of internet access, and the rising use of smartphones.

CHANGING POSITION OF INDIA IN DIGITAL PAYMENTS:

According to World Payment Report, 2016, the US, Eurozone, Brazil, China, U.K, South Korea, Japan, Canada, Russia, and Australia ranked in the top 10 positions in digital payments in the world for the financial years 2013-14. India’s digital payment exposure during that period was growing but not exponentially and so couldn’t find a place in the top rankings. But, as per the ACI Worldwide Report, 2021, India holds the top position in Real Time Payments, which is a
part of digital payments with 48.6 billion transactions made in that year. China holds the second position with 18.5 billion transactions made in the year 2021 which is far behind India’s record. The change happened within some 6-7 years from not being in the top 10 positions to the top position and this all happened after the inception and growth of UPI, the Unique Payment Interface. It means that India is progressing, flourishing in the real-time payment system with the support of UPI.

**RANKING OF MOBILE PAYMENT APPS AND ADOPTION BY COUNTRY**

As per the German Report (yStats, 2022), China’s two mobile payment services (Alipay, Wechat Pay) are the most popular, despite only being popular in the home country. Apple Pay is broadly popular in all countries and the iPhone has not seen much success in China. Indians using apps are not ranked at the top which seems that since a lot more people are uncovered with this mode of payment. Though India ranked first in real-time payments, though, we are progressing in adopting mobile payment apps, though, we are having the most successful made-in-country product, but we are still lagging in adopting mobile payment apps i.e., we are progressing but have not reached the expectation or goal of DIGITAL INDIA.

**UPI FAILURES**

Digital transactions, like any other system, have both pros and cons. Therefore, it is necessary to stay vigilant of all the loopholes in the system. One of the primary pillars of the digital economy is UPI, which is the most preferred and used method of online transactions as all you need is a 4-digit PIN to authorize a transaction. However, these days, UPI frauds such as SIM cloning, phishing, money mule, malware, and vishing are rather common. As per the RBI report and information from the Union Finance Ministry, over 95000 UPI fraud cases were reported in 2022-23.

<table>
<thead>
<tr>
<th>Year</th>
<th>No of UPI fraud cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-21</td>
<td>77000</td>
</tr>
<tr>
<td>2021-22</td>
<td>84000</td>
</tr>
<tr>
<td>2022-23</td>
<td>95000+</td>
</tr>
</tbody>
</table>

While analysing the data regarding the number of UPI fraud cases for different years, one can perceive that the cases are increasing as the number and volume of transactions are increasing. With the growing popularity of convenient and fast UPI transactions, numerous UPI fraud cases are occurring all over the country.

**UPI GLOBAL**

NPCI International Payment Ltd (NIPL) has been launched by NPCI to take UPI global through which the Indian digital payment system gained global acceptance. The Reserve Bank of India (RBI) and the National Payments Corporation of India (NPCI) are working together to expand the reach of the Unified Payments Interface (UPI) globally. In fact, the RBI has approached other central banks of many nations and has highlighted the advantages of using UPI as an efficient and secure payment system. The following is the list of countries accepting UPI Payments:

<table>
<thead>
<tr>
<th>Announcement</th>
<th>Countries</th>
<th>Entity partnering with UPI network</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2021</td>
<td>Bhutan</td>
<td>Royal Monetary Authority of Bhutan</td>
</tr>
<tr>
<td>September 2021</td>
<td>Singapore</td>
<td>Monetary Authority of Singapore, PayNow</td>
</tr>
<tr>
<td>August 2021</td>
<td>Malaysia</td>
<td>Merchandrade Asia</td>
</tr>
<tr>
<td>September 2021</td>
<td>Singapore, Malaysia, Thailand, Philippines, Vietnam, Cambodia, Hong Kong, Taiwan, South Korea, Japan</td>
<td>Liquid Group</td>
</tr>
<tr>
<td>November 2021</td>
<td>UAE</td>
<td>Network International (NI)</td>
</tr>
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</table>
DISCUSSION

UPI boosts to shun cash usage by enhancing the customer’s faith in digital transactions. Since the payments are instantaneous, it improves the cash flow in the market. It has a huge impact on the banks and fintech industry as a low-cost alternative to cash. Its open technical architecture helps fintech firms to drive innovation and develop newer products and unique services. The UPI is considered one of the important drivers in reducing black money in the market. No transaction cost or bear minimum transaction cost or no MDR cost is another feature of UPI’s success story. But the challenge comes for the banks that it is difficult for them to support UPI for the long term without MDR cost. The maximum number of transactions made through UPI are low-value transactions and the task of maintaining its infrastructure without charges is real distress for them.

The above data gives us clarity that the maximum number of transactions is below Rs.500/- Banks are not trying to earn income from these charges but need them to maintain their infrastructure. Since the number of transactions is increasing day by day, the operation cost met by banks is truly a burden for them. Now, it’s indeed a big challenge for our government to tackle the issue. Apart from that, people still prefer cash and a cent percent penetration of smartphones, and flawless internet connectivity is yet to be attained. Further, lack of digital literacy (Kumar, 2020) and use of the English language (Sharma, 2019) are the major hindrances to adopting UPI. So, initiatives like the Bharat Net project (for internet connection) and PMGDisha (for digital literacy) should be implemented with full vigor and support. Moreover, providing the app in vernacular languages will help in more financial inclusion. Further, regarding UPI fraud, the Government must take serious steps to overcome the same as an exponential increase in digital payments owing to the rapid assimilation of technology in our day-to-day lives has contributed to the increase in online fraud. Many consumers have fallen prey to fraudsters by revealing their sensitive information and losing their hard-earned money. Thus, MDR cost for Banks, digital literacy, and vernacular languages for users, and UPI frauds are the major challenges that are faced by UPI.
CONCLUSION

From the analysis of secondary data collected, the study points out that though we are progressing, not reaching the stature point due to uncovered semi-urban and rural areas and so focusing on that area is the need of the hour. India’s present status greatly impacts the digital revolution in the payment ecosystem. UPI stands at the top of the payment system in India with more than 50% of payments have been done by adopting it and surpassing the other modes of digital payments aggressively. India must share this technology with fellow countries to earn additional forex and enhance its soft power across the globe. Further, producing smartphones at a nominal rate inside India will help UPI to reach its height as smartphones are the real backbone for the success of UPI. Recently, the government has also come up with a national cybercrime reporting portal to register grievances through which online fraud can be trapped better. Moreover, NPCI and RBI are working together to attain global reach with UPI to provide secure payment infrastructure for cross-border shoppers and travel. This UPI global through NIPL will stipulate a way in exploring international business propositions and afford a streamlined use of UPI in the international market. Thus, the future of UPI looks promising, both in terms of its continued growth within India and its potential for expansion to other countries.

REFERENCES