

Unified Payments Interface (UPI): Its Growth and Significance

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ABSTRACT

Fintech can be explained as delivering financial services by some specialized companies through integrating technology to improve their use and delivery to consumers. FinTech provides financial services through its applications backed by technological superiority, such as cloud services, artificial intelligence, robotic process automation, chatbots, blockchain, machine learning, CRM, etc. The concept of FinTech and Digital banking is somehow similar. Digital banking can deliver core and traditional banking services using digital and technological means. The difference between both methods of providing banking services is that the banks themselves host digital banking.

In contrast, FinTech is an industry where companies or startups offer various financial services using technology. In the Indian economy, digital payments through Fintech companies are growing. And with the rapid expansion of the internet and digitalization in the country offers an excellent opportunity to FinTech companies. Indian FinTech industry is bifurcated into two significant services first one is payments service providers, which includes payment banks, mobile wallets, payment gateway, and ATM & mPOS. The other one is online financial products providers such as lending, Insurance providers, e-NPS, MF/Broking. At present, there are 187 Fintech unicorns globally, of which 18 Unicorns are in India. Paytm, Policy Bazaar, RazorPay, BillDesk, Zoho, Zerodha, Pine Labs, Cred, Chargebee, Digit, Groww, etc. Zeta, BharatPe, CoinDCX, OfBusiness, Slice, Upstox, Acko. India has the highest FinTech adoption rate globally of 87%, which is significantly higher than the global average rate of 64%. Hence, the study will peep into the development of UPI and its growth over the period. It will also analyze the impact of the Digital payment infrastructure on the growth of UPI transactions.

KEYWORDS: FinTech, Artificial Intelligence, Digital Banking, Online Banking, BlockChain

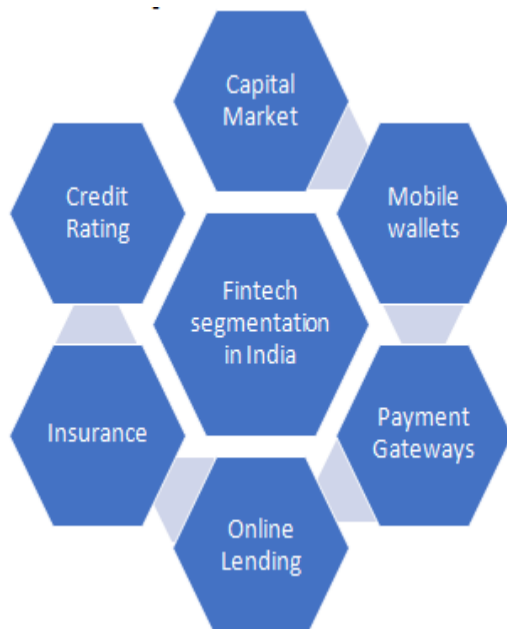
I. INTRODUCTION

Fintech refers to the technology which enables the automated delivery of financial services. The fintech industry includes financial services such as insurance, capital market, mobile wallets, payment gateways, online lending, card acceptance, credit rating, bills & recharge provided by backend financial technology. The financial technology these companies use is cloud-based solutions, big data, and advanced security solutions. Such technology aims to make financial services accessible to ordinary people; they provide innovative products or services by making the best possible use of emerging technology. It leverages the services such as mobile payments, online banking, big data analysis, financial analytics, etc. Earlier the technology worked as backend support to the financial support to the banks and financial institutions, but now it also consists of customer-centric services. The presence of the fintech industry is rising at a remarkable rate, and by 2025 India's fintech market is expected to reach 6.2 trillion (US\$ 83.48 billion).

The emergence of the fintech industry is not a result of a single instance; several factors led to its development globalization is one of them. With the advent of globalization, competition has become stiffer than earlier, the geographical gap has vanished, and access to the new technology and larger market has been made possible, this also provided the customers with a variety of options, and they have become sovereign. Banks are facing competition from other banks, which are providing the customers with high-end techno products, good server connectivity, and better customer services. This led to the adoption of fintech in the banking sector. Consolidation carried out in the banking

sector reduces the number of public sector banks by eight & this creates more pressure on the existing banks; that rapid advancements in technology are also the reason for the development of fintech in the banks. However, the cause of concern is that despite having such a strategic significance, only 7 percent of the banks have their fintech labs. The rest prefer to invest in startups or set up fintech accelerators.

The present era is the age of digitalization, and the fintech industry can complement traditional banking by making the best use of available information and offering the services of data analytics because consumers are now more concerned about getting updated frequently with the availability of sophisticated technology at the minimum price with the maximum convenience. Rapid advancement in the information technology



The growth of the financial sector industry can be traced back to the establishment of the world's first ATM in the year 1967 by Barclays in India in 1971, the first stage of the development of the payment apps Paypal in year established in 1998, and Bitcoin was propelled in 2009, Google hurls Google wallet in 2011.

"India's fintech market was worth USD 53.5 billion in 2020 and is further projected to reach USD 147.6 billion by 2027, growing at the CAGR of 15.5% in the forecast period. The fintech market is one of the most promising sectors of the Indian economy. It is growing at a high rate because of the increasing penetration of smartphones, growing internet access, and high-

speed connectivity. Its expanding application in the banking sector also drives its market growth. Additionally, the launch of the 5G spectrum is anticipated to present growth opportunities to the market in the forecast period."

According to the data available on the statista in India, around 48.5% of fintech companies belong to the payment segment, followed by alternative lending with 28.6%, since the payments segment is the most popular and leading because the introduction of the Unified Payment Interface system so the paper will concentrate on the UPI based payments apps.

II. LITERATURE REVIEW

(Neema & Neema, 2016) it was found that UPI was the tool that facilitated the monetary transaction because of its convenience and user-friendly interface. It accelerated the m- payment because mobile seems to be handy equipment for the payments. UPI is the most advanced system that allows instant payment and settlement. However, to promote the use of UPI, the Government must take the initiative to develop awareness about UPI so that the objective of Digital India can be fulfilled.

(Vishnoi, 2021) it was found that UPI was launched in 2006 and was an improved version of IMPS. UPI is the real-time payment application that spawned the digital revolution. It has played a significant role in digitalizing the country, and India has overtaken developed countries like the USA in real-time online transactions in mere six years. The major participant in promoting digitalization is telecom giant Reliance Jio by provides internet services at nominalized rates which help in flourishing the digital market. The drawback associated with the UPI must try to be overcome; otherwise, its growth may get adversely affected.

(Mili & Duwarah, 2021) the study examined that though cash is the lifeblood of an economy and is widely used as a medium of exchange for all types of material transactions, the Government has taken several key steps to make our economy cashless. Cashless transactions would bring transparency which will counter corruption and brings utmost convenience for the customers because the digital platform is very convenient and user-friendly. However, to promote the cashless economy, there is a need for the - availability of safe and secured services with full autonomy, certification of payment & no hidden charges. However, some serious steps are required so that rural people also benefit from it.

(Sukanya & Subbulakshmi, 2021) it was observed that UPI had grown tremendously after the Government's demonetization policy. To cater the rising demand of customers, NPCI launches the BHIM app to push the adoption of a cashless system. The study is based on a consumer survey and found that customers are satisfied with the services UPI provides. However, there is a need to make some improvements considering the security aspect of the payment. Some offers and discounts should be provided to easily get the customers' attention.

(Rastogi et al., 2021) it was observed that the emergence of digitalization proved significant and fruitful. UPI is the innovation that brings financial inclusion to the economy. It was also found that UPI is the safest platform for customers with a PMJDY account. Financial stability and literacy act as the factor which influences the financial inclusion and the economic development of the nation. UPI act as a tool that brings financial literacy and promotes financial inclusion.

OBJECTIVES

- 1- To peep into UPI's status, functioning, and development over the years.
- 2- To analyze quantitatively the influence of external factors and their impact on the growth of UPI transactions.

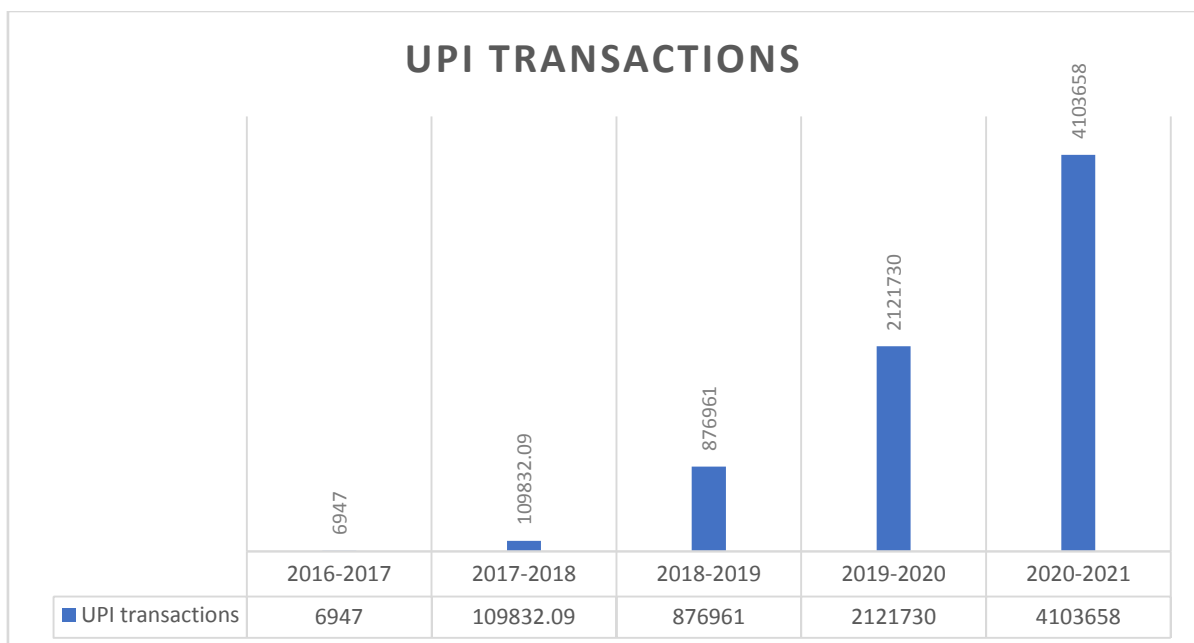
III. METHODOLOGY

The study is descriptive and exploratory. The study will be based on previous studies. Most importantly, the study will depend on the secondary data collected from the RBI websites and its Annual reports and data from the NPCI websites. Statistical tables and graphs are used to analyze the data to conclude. The statistical graphs are used to study the impact of external factors and their impact on the growth of UPI transactions.

I. DEVELOPMENT OF UPI AND ITS WORKING

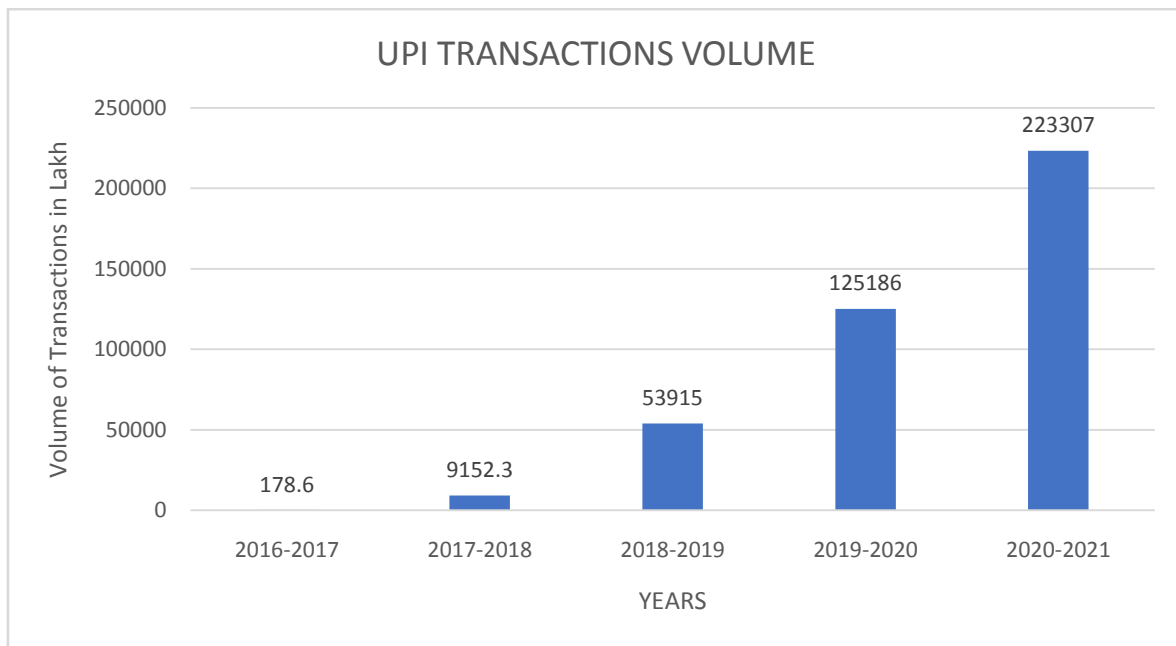
Unified Payment Interface (UPI) is a system that helps immediate money transfers using the mobile-based application round the clock 24*7 and 365. The UPI enables the Peer to Peer collect request system, which helps schedule the payment and collection. The UPI was developed by the National Payments Corporation of India (NPCI) in 2016; the pilot launch was on April 11, 2016, and finally, it was launched ultimately from August 25, 2016, onwards. The UPI works on a technology known as Open API (Application Programming Interface which enables the parties to link with each other.

Since its inception, UPI has shown phenomenal growth and development in its value and volume of transactions. The Growth of UPI can be understood by using the following figures.



SOURCE- National Payment Corporation of India

FIGURE-1



Source- NPCI

FIGURE-2

From the above two figures, it can be seen that since its launch, UPI has been widely accepted by the people of a country. The value (in crore) and volume (in lakh) of UPI transactions over the years are 6947 crores and 178.6 lakh in 2016-2017 in the very beginning year, in the year 2017-2018 value of transactions using UPI was Rs. 109832.09 crore which is the biggest growth with 1481% on a year-on-year basis. The value of transactions in 2018-19, 2019-2020, and 2020-2021 are Rs. 8,76,961 crore, Rs. 21,21,730, and Rs. 41,03,658 Crore respectively. The year-on-year growth in the volume of transactions for the years 2018-2019, 2019-2020, and 2020-2021 are 698%, 143%, and 93%, respectively. These figures show that the UPI has become popular in no time because of its easy and simple operation and its low-cost infrastructure requirement. Today, UPI-based payments apps are the most popular segment in the Fintech Industry. According to data available on statista.com the phonepe and Google pay are the market leaders in the payment app segment with an equal share of 43%, and Paytm is in the third position as of the first half of the year 2022.

External Factors and their Impact on Growth of UPI Transactions

External factors such as the infrastructure required for the working of digital payment are also vital for the growth of UPI. RBI has developed the digital payment index (DPI) to measure the extent of digitalization of payments across the country and

the overall state of infrastructure for digital payment. It was constructed in the year 2018.

The RBI-DPI is based on five broad parameters that measure the state of infrastructure required for the deepening and access of digital payments. The five parameters are payment enablers which include the internet, mobile, aadhar, bank accounts, participants, and merchants; the second parameter is Payment infrastructure of the demand side, which includes debit card, credit card, prepaid payment instruments, customers registered-mobile & internet banking and FASTags, the third parameter for the RBI-DPI is Payment Infrastructure-Supply Side which consists of sub-parameters such as bank branches, business correspondents, ATMs, PoS Terminals, QR codes and Intermediaries, the fourth parameters includes payment performance such as Digital payment systems-volume, digital payments systems-value, unique users, paper clearing, currency in circulation, cash withdrawals and the last pillar on which the index is developed is consumer centricity which includes awareness and education, declines, complaints, frauds and system downtime.

The weights for the various parameters are as follows: the first one is payment Enablers weighted as 25%, Payment Infrastructure (Demand-side factors) accounts for 10% of the weight, Payment Infrastructure (supply-side factors) weigh for 15%, whereas payment performance weighs for 45% and Consumer centricity weight for 5%.

To study the impact of external factors on UPI transactions we can analyze the following tables:

YEARS	UPI TRANSACTION (VALUE in Crore)	DIGITAL PAYMENT INDEX (SCORE)
2018-2019	8,76,961	153.5
2019-2020	21,31,730	207.7
2020-2021	41,03,658	270.6

Sources- RBI (Report on Trend and Progress of Banking and NPCI) Table- 1

From Table 1 representing data of DPI score and value of UPI transactions, we can conclude that as the infrastructure improves, which is shown by the score of DPI, the value of transactions also improves rapidly. Hence, we can conclude that the Digital payment infrastructure well supports the growth of the number of transactions in UPI.

IV. CONCLUSION

From the above study, we can conclude that UPI is the golden arrow in the quiver; due to this feature of the UPI, it holds the maximum share in the whole digital transaction basket and is also widely accepted among the people.

From the data, it can be easily seen that as the use of UPI increases over time, fraud cases are also rising. Hence, there is a need to educate people regarding it. The UPI indeed played a crucial role in the development of banking services and also in financial inclusion. Also, it plays a crucial role in promoting a cashless economy which would be beneficial for the economy in formalizing the economy. Due to its use of superior technologies in its work, the UPI is also a secure means of digital payment. The potential challenges which may arise in the sector may be an abuse of dominance position by a few firms, as data suggest that almost 80% of the market share of this segment are in the hands of the two firm, i.e., Phonepe and google pay, Government in its recent changes suggest a maximum cap of 30% of market share on each firm.

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