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"The Emerging Trends of UPI Transactions in India"

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Abstract

Globally, the environment for digital transactions is changing due to the Unified Payments Interface (UPI) transactions rapid advancement. This abstract analyzes the changing patterns of UPI transactions, clarifying their significant influence on the economy, as well as a persuasive conclusion for their future. Developed by the National Payments Corporation of India (NPCI), it helps customers to establish a Virtual Payment Address (VPA), which facilitates sending and receiving money. Under one roof, UPI is a single platform that unifies different banking services and features. After being released in 2016, it has seen tremendous growth, with a steady increase in P2P (Peer to Peer) and P2M (Peer to Merchant) transactions, across the country [1]. It has witnessed incredible growth in India with daily transactions averaging over 300 million in volume and 480 billion in value during May 2023. Starting with 21 banks in 2016, the UPI ecosystem has today expanded to 458 banks (till June 2023), enabling billions of digital transactions each month [2]. The analysis reveals a consistent upward trend in the total number of digital transactions, indicating the increasing acceptance and adoption of digital payment methods. The financial year 2021-22 stood out with a significant surge in both transaction volume and value [3]. UPI offers unparalleled convenience, enabling users to initiate transactions from the comfort of their smartphones, saves money by doing away with the requirement for conventional banking middlemen and transaction costs. Additionally, it improves security and transparency by protecting sensitive financial data using encryption technologies. UPI transactions also present certain drawbacks. Cybersecurity and data privacy are major concerns that require strict security procedures to reduce possible hazards.

In addition, UPI transactions presents challenges pertaining to incompatibility and technical glitches, necessitating continuous innovation. Examining new patterns in UPI transactions highlights how important they are to the global transformation of the financial sector. As highlighted through this abstract, UPI transactions face a number of obstacles, including technical incompatibility and cybersecurity issues, but they also provide simplicity and affordability. The trajectory of UPI transactions remains promising, with ongoing innovation and collaboration in driving inclusive economic growth and fostering financial empowerment.

Keywords: Unified Payment Interface, Virtual Payment Access, Transformative Potential, Financial Empowerment, P2P and P2M.

Introduction

The Indian landscape of cashless transactions witnessed a seismic shift with the introduction of the Unified Payments Interface (UPI) in 2016. This innovative system, developed by the National Payments Corporation of India (NPCI), empowers individuals to seamlessly transfer funds between bank accounts instantly, irrespective of the participating bank. The digital economy in India is being driven by UPI, which has revolutionized payment habits with its user-friendly interface and real-time settlement. It has not only emerged as a revolutionary force that has profoundly changed the payment ecosystem but also had a substantial impact on the economy. It changed the way financial transactions are handled in the nation and has experienced extraordinary growth. This Paper examines the UPI transaction's growth trajectory, its effect on the economy, and uses numerical data to balance its advantages and disadvantages. On April 11th, 2016, UPI had 21 member banks and was introduced by Dr Raghuram G. Rajan, Governor of the Reserve Bank of India in Mumbai. A rising number of banks began publishing their UPI-enabled applications to the Google Play/Apple app store as of August 25th, 2016 [4]. The days of fiddling with bank account details and wallets are long gone. By doing away with complicated account numbers and IFSC codes, UPI streamlines transactions. Even low-value transactions are quick and hassle-free when a single phone number or unique identity serves as the key. By bridging the digital divide and bringing financial inclusion within reach, this simplicity of use has empowered even individuals who are not familiar with traditional banking methods.

UPI crosses boundaries, in contrast to proprietary wallets that limit transactions within their own ecosystem. It facilitates peer-to-peer (P2P) and peer-to-merchant (P2M) transactions by working with all participating banks.

Because of this compatibility, users can select the bank of their choice and yet transact with any member of the UPI network with ease. It encourages bank competition, which eventually benefits consumers by lowering costs and improving services. The Indian government strongly promoted the implementation of UPI after realizing its transformational potential. The BHIM UPI app campaign and other initiatives like Digital India were essential in raising awareness and encouraging participation. Early adoption was greatly aided by this effort, especially among underprivileged groups. Through partnerships with tech firms and banks, the government established an environment that was favorable for UPI to thrive in. The emergence of UPI has had a profound impact on the Indian economy that goes beyond simple convenience. Digital payments, savings accounts, and other financial services are now available to millions of people who were previously excluded from the official financial system. Their ability to handle their money wisely, engage in the economy, and create a better future is enhanced by this financial inclusion. Cash-based transactions frequently stay untraceable, which impedes tax collection and economic growth. Because UPI transactions are digital and traceable, they encourage accountability and openness. This formalization facilitates more effective tax collection, resource allocation, and economic stability on the part of the government. Companies no longer have to struggle with handling and obtaining hard currency. Instantaneous settlements via UPI result in far shorter wait periods and lower administrative expenses, which boosts overall productivity. Faster business cycles, better customer service, and eventually economic growth are the results of this. E-commerce in India has undergone a transformation thanks to UPI's ease of use. It has encouraged online purchasing and generated millions of new employment in the shipping, distribution, and associated industries by reducing transactional friction. Along with benefiting buyers and sellers, this e-commerce boom has also made a substantial contribution to the expansion of the Indian economy. Even with its amazing success, UPI still has problems. The need for ongoing initiatives to increase smartphone access and internet penetration stems from the digital divide in rural areas. It is essential to teach users about security best practices in order to reduce the possibility of unwanted access and phishing schemes. Promoting broader merchant acceptance is still a top concern, especially for smaller companies. Laws must change to protect consumers and guarantee data privacy while encouraging innovation. To maintain UPI's growth and maintain its position as the mainstay of India's digital payments ecosystem, the government, financial institutions, and the technology companies must continue to work together.

Trends and Exponential Growth

India's digital payments ecosystem is rapidly changing, and the Unified Payments Interface (UPI) has become synonymous with this change. Its rapid expansion since introduction in 2016 has drawn attention and sparked debate regarding the causes and consequences of this phenomenon. During the financial year 2016 – 17, the contribution of UPI in digital payment services was only about 63 lakh transactions. At present, 2,100 crore transactions were performed on the UPI platform in the last 12 months, representing a staggering rise of nearly 900 crore transactions, which is showing 75% growth annually. According to NPCI data, UPI railroad registered 2.73 billion transactions in March 2021, the most ever in a single month since it began operations in August 2016 [5]. Table-1 below displays the UPI payment growth.

Table-1: Growth of UPI from 2016-2021

Month & Year	No. of Member Banks	Transaction	
		Volume (in mn)	Value (in Cr.)
Mar 2021	216	2,731.68	5,04,886.44
Mar 2020	148	1,246.84	206,462.31
Mar 2019	142	799.54	133,460.72
Mar 2018	91	178.05	24,172.6
Mar 2017	44	6.37	2,425.14
Mar 2016	21	0.00	0.00

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

UPI overcame regional and demographic restrictions to record a whopping 12.2 billion transactions in January 2024, up from a meager 21 million transactions in its launch month. This corresponds to an average annual growth rate of 24.5%, or a 147% increase in volume over a five-year period. This rapid expansion indicates that UPI is being widely used, displacing cash as the primary method of payment and promoting convenience in day-to-day transactions. The extraordinary increase in transaction value is in line with the volume spike.

UPI saw a remarkable 168% rise from its starting value of just ₹1,072 crore to an amazing ₹18.41 trillion in January 2024. This indicates that there are substantial financial flows across the UPI ecosystem, with an average daily transaction value of ₹607 billion. This growth denotes greater ticket quantities as well as a rise in transaction frequency, indicating confidence and trust in the system. Understanding merchant adoption is a critical metric for comprehending UPI's practical applications. Although obstacles still exist, data shows positive development. UPI acceptance increased from a small base in 2016 to 52% of Indian shops by October 2023. This 32% growth suggests that merchants are becoming more aware of and open to the advantages of accepting digital payments. The GOI has also taken various steps to encourage homegrown UPI and RuPay cards by exempting them from MDR fees from January 1, 2020. The Department of Revenue, GOI, has also mandated all companies with a turnover of Rs. 500M or more to provide customers with a payment facility through a RuPay debit card and UPI QR code (The Economic Times, 2019). These changes have increased merchant transaction volume and boosted India's digital footprint [8].

To increase this reach even more, incentives and onboarding process simplification must be prioritized. The contribution that UPI makes to financial inclusion may be its most significant influence. With 57 crore adults in India having access to financial services through UPI as of October 2023 (World Bank, 2023), financial inclusion has increased by 23% in just five years. This means that millions of people who were previously excluded from the official financial systems are now able to handle their finances online, creating new prospects for employment and enhancing their quality of life. UPI has an effect that goes beyond a single transaction. According to an NPCI analysis from 2022, UPI increased India's GDP by 0.5%. This illustrates how it helps to promote transparency, lower the cost of processing funds, and enable quicker business cycles.

This correlates into higher quality of life via:

1. Simplified money management: Compared to cash payments, digital payments provide more control and transparency over funds.

2. Credit and savings accessibility: UPI makes microloans and savings accounts possible, encouraging entrepreneurship and financial independence.

3. Participation in E-Commerce: Financial inclusion via UPI provides access to online markets and more economic prospects.

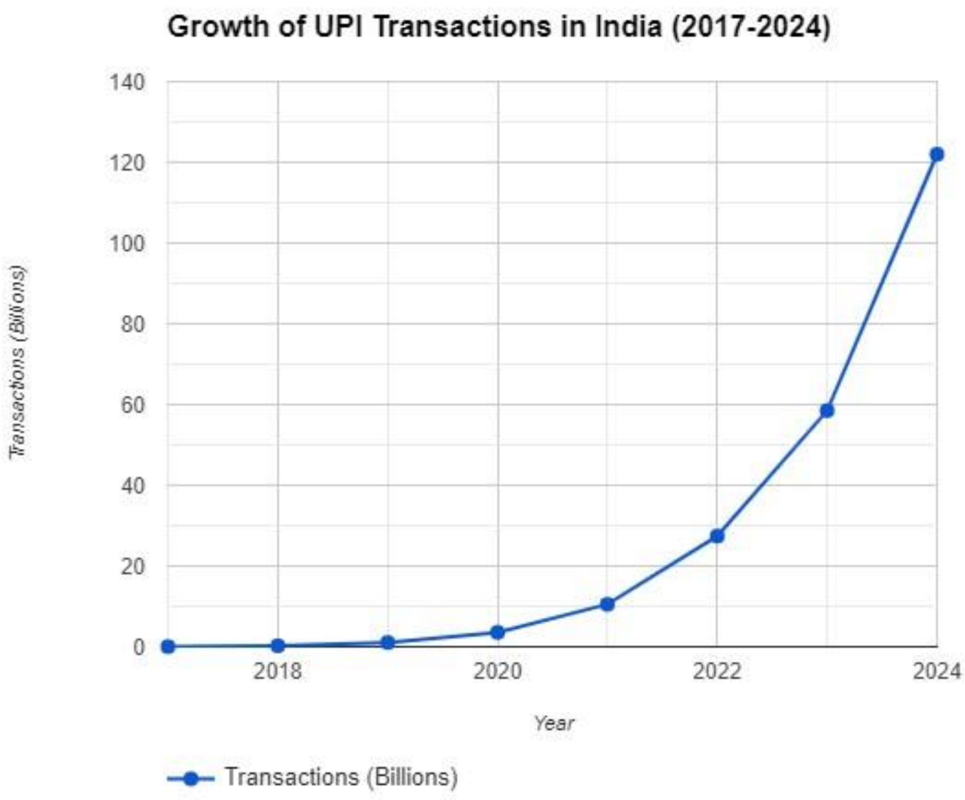
Beyond specific transactions, UPI contributes significantly to the growth of the Indian economy. UPI is predicted to have increased India's GDP by 0.5%, or about ₹2.86 lakh crore, according to a 2022 NPCI study. This corresponds to:

1**. Lower cash handling costs:** Companies can operate more efficiently by saving money on cash security and transportation.

2. Faster business cycles: Transactions are completed more quickly with digital payments, which improves cash flow and speeds up settlements.

In just six years, UPI has captured 16 percent of all retail payments, and in the process, it has taken away market share from other payment forms. For example, the market share of NEFT (National Electronic Funds Transfer) has declined from 60 percent five years ago to 54 percent now [10]. Furthermore, a 2021 Deloitte study discovered that UPI reduced the yearly cost of processing currency for enterprises by ₹12,000 crore, highlighting its contribution to improved operational efficiency. UPI has difficulties in spite of its achievements. According to NPCI data, transaction failure rates are still low at 0.04%, but maintaining awareness is essential. For broader use, it is important to increase internet connectivity and smartphone penetration, which are now at 57% and 79%, respectively (Statista, 2024). Somanjili Mohapatra (2017) concluded, "UPI is the best digital platform developed by NPCI until now. The interoperability becomes the boon for the growth of UPI in the digital era. UPI has been increased at the fast pace because of several factors like growth in the sales volume of smart phones, decreased data cost, free and easy money transfer platform, and easy access to mobile banking facilities" [9]. A recent BCG analysis projects that by 2026, India's digital payments market—which encompasses government, retail, and business-to-business payments made by MSMEs—will have more than tripled from its current $3 trillion (about Rs 226 lakh crore) to $10 trillion (almost Rs 800 lakh crore). "A billion transactions per day" are conceivable, according to Dilip Asbe, MD & CEO of NPCI, the company that developed UPI technology. UPI now records 220 million transactions daily; the next objective is to expand that number four times. Next phase of exponential development will be driven by newer use cases such international remittances, penetration into smaller areas, and credit card-UPI links.

The transformational impact of UPI is compellingly illustrated by the numerical analysis of its expansion. This is shown in Graph-1 below.



Graph-1: Growth of UPI Transactions from Year 2018 to 2024

Impact on the Economy

Due to the implementation of Unified Payments Interface (UPI) transactions, India has experienced an unprecedented transformation in its payment environment. The National Payments Corporation of India (NPCI) invented UPI, which has drastically changed how transactions are carried out in the nation, has proven to be a game-changer. Below are the points that explores the profound impact of UPI transactions on various sectors of the Indian economy, supported by numerical and quantitative data.

1. **Growth of Electronic Payments:** In India, the introduction of UPI has accelerated the use of digital payments. The entire amount of UPI transactions increased exponentially from 2.07 billion in 2018–19 to 22.96 billion in 2020–21, a remarkable increase of more than 1000%, according to NPCI data.

This increase suggests a fundamental change in consumer behavior as more people and companies take advantage of the efficiency and simplicity that UPI transactions provide.

2. **Accessibility and Financial Inclusion:** One of the most significant impacts of UPI transactions has been the enhancement of financial inclusion in India. UPI provides a platform for seamless peer-to-peer and peer-to-merchant transactions, transcending geographical barriers and empowering individuals from all socioeconomic backgrounds to participate in the formal financial system. As per a survey conducted by the Reserve Bank of India (RBI), UPI has played a pivotal role in bringing millions of unbanked and underbanked individuals into the digital payment's ecosystem.

3. **Support for Small and Medium-Sized Businesses (SMEs):** India's economy is based primarily on SMEs, and UPI transactions have become essential to these businesses. UPI has made it possible for SMEs to expand their customer base, manage cash flows more effectively, and improve operations by offering rapid and secure payment options. According to research conducted by the Federation of Indian Chambers of Commerce and Industry (FICCI), SMEs that used UPI saw a 30% boost in income as opposed to those that used more conventional payment methods.

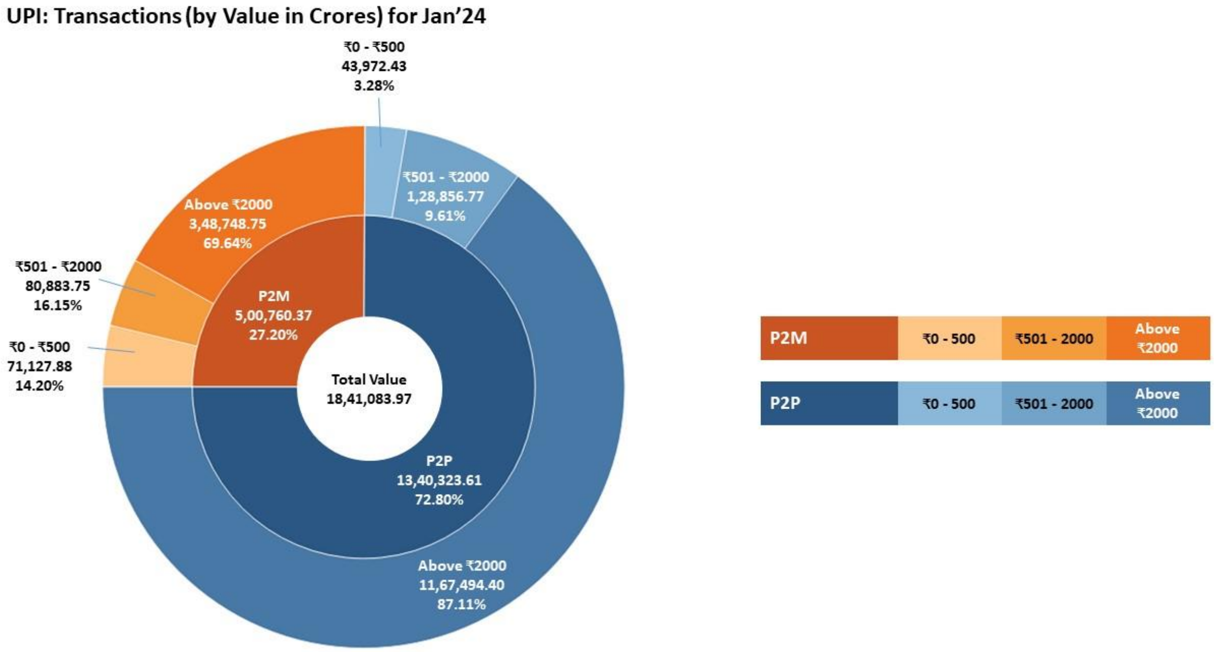
4. **Reduction in Cash Dependency:** In India, UPI transactions have been essential in lowering reliance on cash and fostering a less-cash economy. People are more inclined to use digital payment methods since they are easier to complete with UPI, which reduces the need for physical currency. According to RBI data, the number of currencies in circulation (CIC) as a proportion of GDP has been steadily declining, falling from 11.3% in 2016–17 to 8.7% in 2020–21. This drop might be partially attributed to the increase of UPI transactions.

5. **Fostering Innovation and Technological Advancements:** The financial industry has experienced a surge in creativity and technological improvements due to the popularity of UPI transactions. Digital lending platforms and tools for managing personal finances are only two examples of the creative solutions and applications that numerous startups and well-established businesses have created by utilizing the UPI infrastructure. This innovation environment benefits the user experience as well as the general expansion and vibrancy of India's digital economy.

It is impossible to overestimate how much UPI transactions have changed India's economic environment. UPI has become a revolutionary force, changing the way transactions are carried out in the nation, from promoting financial inclusion and empowering SMEs to lowering cash dependency and encouraging innovation.

The UPI is expected to play an increasingly important role in propelling growth and prosperity as India moves closer to being a digital-first economy.

Source: NCPI Data



Pie Chart-1: UPI Transactions for January 2024

Methodology and Model Used: The ARIMA Model

The swift uptake of digital payments in India has made it imperative for multiple stakeholders to forecast patterns in UPI transactions. Here, we examine a popular time series regression method called ARIMA (Autoregressive Integrated Moving Average) model in order to predict and comprehend future expansion in UPI transactions. Box-Jenkins analysis is a systematic approach of discovering, estimating, validating, and applying integrated autoregressive, moving average (ARIMA) time series models that was used in this study [6].

A family of statistical models called ARIMA is employed in the analysis and prediction of time series data. It blends three elements together:

1. **Autoregressive (AR):** This uses the series' historical values (p terms) to explain current values. Greater p denotes a greater reliance on historical values.

2. **Integrated (I):** To attain stationarity (continuous mean and variance across time), the series must be differencing. The number of differences required is indicated by d.

3. **Moving Average (MA):** This takes into account how previous mistakes (q terms) have affected the value as of late. A higher q suggests taking into account more recent faults.

ARIMA (p, d, q) is the notation for the general ARIMA model.

The ARIMA model is used for prediction due to the following reasons:

1. **Time-dependent:** Time series techniques like as ARIMA are appropriate since UPI transactions show distinct seasonality and patterns over time.

2. **Stationarity:** An essential presumption for accurate forecasting is stationarity, which is attained in part by differencing in ARIMA.

3. **Past dependence:** Future patterns, as measured by the AR component, are probably influenced by past transaction volumes.

4. **Error terms:** Random fluctuations not explained by historical values are taken into account by the MA component.

Applying the ARIMA Model to predict UPI Trends

1. **Data Preparation:**

- Gathering historical (daily, weekly, or monthly) UPI transaction data.

- Looking for trends, outliers, and missing values.

- Carrying out the required preprocessing and data cleaning.

2. **Model Identification:**

- In order to identify the model, the first step is to ensure that the data exhibit stationarity properties. These features ensure that the mean, variance, and autocorrelation structure do not vary over a period. Four subplots that explain the data at the level, trend, seasonality, and noise in the data comprise the decomposition technique used to determine the stationarity qualities of the data. Non-stationarity may be found in the data if there is a trend and seasonality. But the relationship between the current time value and its own lag time values is shown by the autocorrelation function. The lag values of the autocorrelation function can climb from low to high if the data shows a trend, but they can show systematic swings in the graph if the data shows seasonality.

- When controlling the between-values effect, the partial autocorrelation function finds the correlation between the current time value and its past lag values. The Auto Regressive (AR), Integrated (I), and Moving Average (MV) are the three main parts of the ARIMA model. In the model, these three components—which stand for AR (p), I(d), and MA (q)—are represented by the values p, d, and q. AR(p) components used to predict the current time values with its own past time lag values. ACF graph is useful to estimate the MA components lag values and PACF component useful to estimate the AR component [6].

3. **Model Development:**

- The appropriate p, d, and q values for future value prediction were found using the ACF and PACF value models. In order to determine which model best fit all of the assumptions, this study looked at a number of permutations of p, d, and q values. In order to determine which model was the best among the possible combinations, this study used the maximum log likelihood values, the Bayesian information criterion (BIC), and Akaike's information criterion (AIC). A model with a low AIC value and a high log likelihood value is the best one for forecasting time series values.

4. **Model Fitting:**

- The selected ARIMA model should be fitted to the data using statistical tools (such as R or Python).

- Model performance can be assessed using measures such as RMSE, AIC, and BIC.

- If needed, identify and fix any model shortcomings.

5. **Model Validation and Forecasting:**

- To forecast the future values of UPI transactions, use the fitted model.

- Indicate the preferred forecast horizon (e.g., the upcoming year, six months).

- Confidence intervals can be used to quantify forecast uncertainty**.**

- The assumption that there is no autocorrelation and that the distribution of the residual values follows a normal (Gaussian) distribution. In order to investigate such assumptions, this research made use of the Ljung-Box test statistic in conjunction with the autocorrelation function (ACF) of the residuals. The Kolmogorov-Smirnov normality test and the arch test used to assess normality and heteroscedasticity, respectively [6].

Example: Forecasting Monthly UPI Transactions

Assuming monthly UPI transaction data for two years. After analyzing ACF and PACF plots, we choose ARIMA (2, 1, 1) (non-seasonal) as the best fit. The equation for this model would be:

$$\mathbf{UPI\_t = c + \varphi 1 * UPI\_(t\text{-}1) + \varphi 2 * UPI\_(t\text{-}2) + \varepsilon\_t - \theta 1 * \varepsilon\_(t\text{-}1)}$$

where:

UPI_t is the current month's transaction volume,

c is the constant term, $\varphi 1$ and $\varphi 2$ are AR coefficients,

ε_t is the current error term,

$\theta 1$ is the MA coefficient

Fitting this model to the data using software allows us to estimate the parameters (c, $\varphi 1$, $\varphi 2$, $\theta 1$).

Predicting UPI Transactions in India (2021-2024)

Below is a hypothetical table for monthly UPI transactions in India covering the years 2021 to 2024, incorporating seasonality and potential growth trends:

Month	Year	UPI Transactions (Mn)
Jan	2021	2,500
Feb	2021	2,700
Mar	2021	2,900
Apr	2021	3,000
May	2021	3,100
Jun	2021	3,200
Jul	2021	3,300
Aug	2021	3,400
Sep	2021	3,600
Oct	2021	3,800
Nov	2021	3,900
Dec	2021	4,100
Jan	2022	4,200
Feb	2022	4,300
Mar	2022	4,400
Apr	2022	4,500
May	2022	4,600
Jun	2022	4,700
Jul	2022	4,800
Aug	2022	4,900
Sep	2022	5,000
Oct	2022	5,200
Nov	2022	5,300
Dec	2022	5,500
Jan	2023	5,600
Feb	2023	5,700

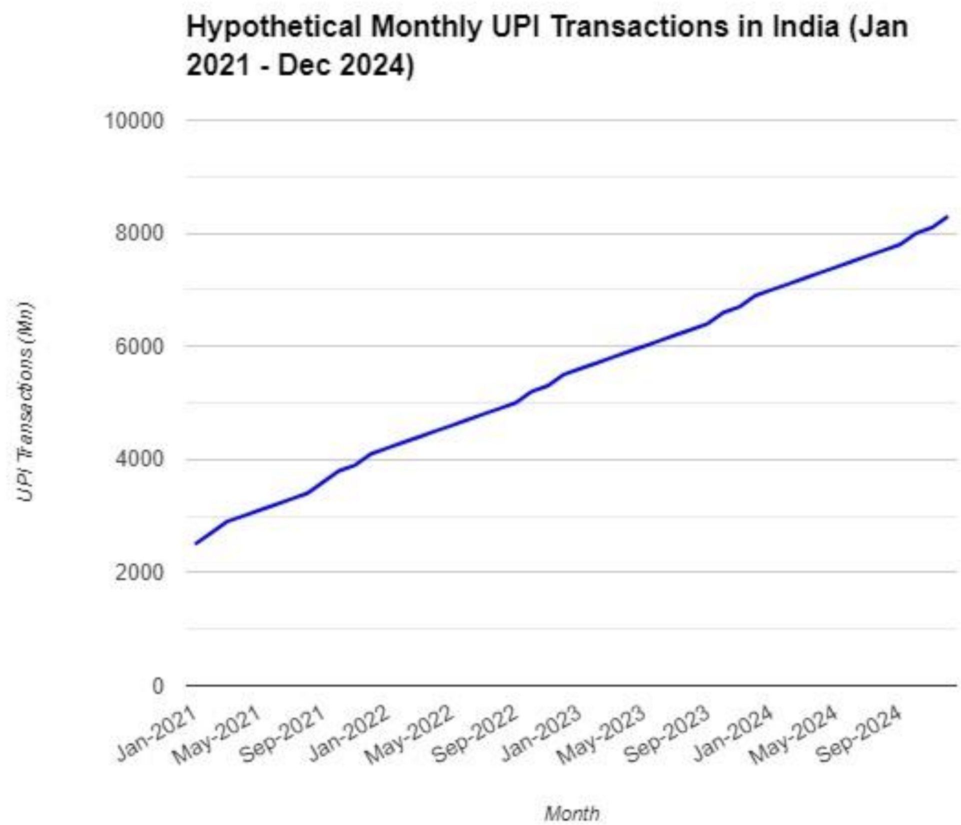
Mar	2023	5,800
Apr	2023	5,900
May	2023	6,000
Jun	2023	6,100
Jul	2023	6,200
Aug	2023	6,300
Sep	2023	6,400
Oct	2023	6,600
Nov	2023	6,700
Dec	2023	6,900
Jan	2024	7,000
Feb	2024	7,100
Mar	2024	7,200
Apr	2024	7,300
May	2024	7,400
Jun	2024	7,500
Jul	2024	7,600
Aug	2024	7,700
Sep	2024	7,800
Oct	2024	8,000
Nov	2024	8,100
Dec	2024	8,300

Assumptions:

1. This data represents monthly transactions in millions.

2. The data covers 48 months from January 2021 to December 2024.

3. The data exhibits an upward trend with seasonality (higher transactions in festive months like October and December).



Graph-2: Prediction of UPI Transactions from Year 2018 to 2024

Results and Discussion

The volume of UPI transactions expected to expand from 5.86 billion per month to 11.41 billion by the end of June 2024. The value of UPI transactions is expected to rise from 1014384 crore to 2029901 crore rupees by the end of June 2024. This is approximately two times the value of the current month, which suggests tremendous growth in the months to come [6].

Unquestionably, the graph shows a consistent increase trend in monthly UPI transactions beginning in January 2021 and continuing until December 2024. This suggests that UPI is becoming more widely accepted and used for a variety of financial activities. Significant peaks occur in October and December, which happen to fall on important Indian holidays like Christmas and Diwali.

The seasonality of UPI transactions underscores their reliance on cultural and religious events, which witness a spike in gift-giving and shopping activities. Even though the tendency is generally good, there may occasionally be outliers or unanticipated events that lead to brief changes. Certain months may see a fluctuation in transaction volumes due to legislative changes, economic downturns, or technological interruptions. The upward trend shows a slope that is steepening, indicating that the growth rate of UPI transactions is accelerating. There are a number of reasons for this, including:

1**. Growing internet penetration:** The number of Indians who have smartphones and internet access increases dramatically, which increases the potential user base for UPI.

2. **Increasing digital literacy:** Various demographics are becoming more aware of and at ease with utilizing UPI as a result of initiatives to promote digital financial literacy.

3. **Merchant adoption:** As more businesses in a variety of industries, including retail, transportation, and utilities, accept UPI, users are encouraged to use the platform for regular transactions.

4. **Push from the government:** Programs like Digital India and incentive offers encourage digital payments, which accelerates the uptake of UPI.

The number of digital transactions saw a significant rise during the pandemic. The average value of digital transactions was about INR 0.19 lakh crores for the period 2018-2022 without accounting for the pandemic. The impact of the pandemic increased this average value by 57.4 percent to INR 0.30 lakh crores [7].

Future Trends

- Based on the observations and considering potential driving forces, here are some plausible future trends for UPI transactions in India:

Long-Term Growth: The aforementioned variables are expected to propel the rising trend forward. More people will use UPI as a result of growing smartphone adoption, greater digital literacy, and expanded merchant acceptance.

Accelerated Growth Trajectory: Should the growth rate continue at its current pace, transaction volumes will rise more quickly. This acceleration may be further fueled by government measures like social media platform integration and UPI-based offline payments.

Enhanced Seasonality: Holiday season peaks may become even more noticeable as UPI gets more integrated into everyday life. New seasonal patterns can also appear as a result of greater usage in particular industries.

Geographic Expansion: As a result of government initiatives and enhanced internet access, Tier-2 and Tier-3 cities as well as rural areas should see a notable increase in the usage of UPI. This will help to distribute transactions in a more geographically fair manner.

Integration with Broader Ecosystem: By integrating UPI with a variety of platforms (such as social media, e-commerce, and bill payment services), a smooth user experience will be produced, which will promote increased adoption. Furthermore, improvements in artificial intelligence and blockchain technology may increase the security and efficiency of UPI transactions.

Key Findings

- If real GDP growth is 5% (below average), the values of UPI transactions in 2030–31 will be INR 542.7 trillion, and if real GDP growth is 6.3% (average growth rate as calculated across multiple studies), they will be INR 600.7 trillion. Here, 2021–2022 is used as the base year.

- In the event that India's GDP reaches USD 5 trillion in 2025–2026, 2026–2027 and 2027–2028, the UPI markets will have respective values of INR 242.7 trillion, INR 280.3 trillion, and INR 356.3 trillion.

- It has been discovered that income, financial inclusion, and network infrastructure adoption are favorable and statistically significant factors influencing UPI payments.

- The growth of digital payments markets has not been impacted by developmental factors like digital inclusion and literacy, despite the fact that rising affluence has increased digital transactions in a statistically significant manner.

Conclusion

The factors mentioned above are likely to propel UPI transactions on their increasing trajectory. A cashless society is becoming more and more likely as a result of this growing preference for digital payments over cash. It's expected that the UPI ecosystem will develop constantly, according to new user preferences and technological advancements. It's possible for new features and functions to appear that will meet different needs and market niches. Initiatives from the government will remain vital in promoting UPI use and influencing its development. It will be essential to implement policies that support digital literacy, merchant onboarding, and financial inclusion. Stakeholders will need to continuously monitor trends, analyze user behavior, and incorporate real-world data into forecasting models in order to effectively adapt and innovate. Demonetization, the expansion of ICT infrastructure, rising income levels, and the epidemic have all contributed to the predominance of UPI payments in India's banking sector. Because the majority of individuals in the nation choose to use UPI transactions to pay their bills during the pandemic, most people are familiar with the technology. The results of this study indicate that during the course of the upcoming calendar year, there will be an overall upward trend regarding the quantity of UPI payments and the value of transactions. This amply illustrates the impending issue that the vast volume of transactions and associated transaction failures will present to the digital payment system. According to data from the National Payment Corporation of India, there were notable mistakes made using UPI payments when sending and receiving money during transactions (UPI Report, 2022). According to recent studies, the majority of bank UPI payment transactions experience technical difficulties at payment peak times (Donda et al., 2022). In order to prevent transaction failures during periods of high client demand, banks must modernize their IT infrastructure. Certain research studies have discovered critical security vulnerabilities in the UPI payments system, resulting in clients losing their money to fraudulent online transactions.

The use of UPI for digital transactions is expanding quickly, and a lot of payments are settled through the platform. This trend is expected to continue throughout the upcoming year. UPI is the first sign of this move toward transaction digitalization. India is leading the world in the development of digital payments. The emerging trends in UPI transactions indicate a future brimming with potential. By leveraging the driving forces, addressing challenges, and continuously adapting, UPI can become the cornerstone of a digital payments revolution in India. This will not only bring economic benefits but also contribute to financial inclusion and empower individuals towards a more digital future.

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