**REGULATORY FRAMEWORK AND COMPLIANCE CHALLENGES IN DIGITAL PAYMENT: A CASE STUDY OF PAYTM**

**ABSTRACT**

India's digital payment revolution is rewriting the country's financial narrative at a remarkable pace. Fuelled by the phenomenal success of the Unified Payments Interface (UPI), India has witnessed a staggering surge in digital transactions. To put it in perspective, in financial year 2023, more than 100 billion digital transactions took place across India. This study aims to examine the digital payment revolution in India, delving into the various factors driving this transformation. The digital payment revolution began predominantly in 2016, following demonetization, and has continued to grow ever since. In addition to demonetization, several other factors have contributed to this revolution, such as increased access to the internet, the impact of COVID-19, rising financial literacy, and various government initiatives. In addition to these aspects, the research work examines the changing consumer behaviour and preferences, along with the socio-economic impact of digital payment adoption, particularly on rural and unbanked populations. Increased influence of Fintech companies, digital wallets, and mobile banking applications have provided innovative and user-friendly platforms for conducting transactions. And we also discussed about the Hackers disruption in UPI transaction in India, causing financial instability and loss of trust in digital payment system. But Regulatory support from the Reserve Bank of India (RBI) has been instrumental in shaping the digital payment landscape. The RBI's policies and regulations have not only ensured the security of digital transactions, but also in the future, RBI is planning its Digital Currency. Understanding the pivotal role of finance in India's digital payment revolution is critical for both professionals and policymakers, as they navigate a landscape where innovation knows no bounds.

**Keywords:** Digital payment, UPI transaction, demonetization, cashless transaction, digital revolution

**INTRODUCTION**

Have you ever wondered or discussed with your friends whether you would stop using cash today? It used to be an imaginary situation because it was all about carrying cash in your wallet or writing checks, but things have changed dramatically in recent years. India has a remarkable success story to share about how a cash-driven country became the top-leading gainer in the digital payment industry [1]. The most important reason behind this is the growth of the UPI (Unified Payment Interface), a very quick and easy way to transfer and send money. Demonetization, government initiatives, and COVID-19 acted as catalysts. The major digital payment methods that played an important role in this financial revolution are UPI (United Payment Interface), Banking Cards, USSD (Unstructured Supplementary Service Data), AEPS (Aadhaarenabled Payment System), Mobile Wallets, Point of Sale Machines (POS), Mobile Banking, Bank prepaid cards, Internet Banking, and NEFT (National Electronic Funds Transfer). There are more than a billion digital transactions each day, and the government is planning to take it a step further by ensuring that India reaches a 5-trillion-dollar economy by 2025.

**UPI (Unified Payments Interface)**

Unified Payments Interface (UPI) is a real-time payment system developed by the National Payments Corporation of India (NPCI) on April 11, 2019 by Dr. Raghuram G. Rajan, Governor, RBI, in Mumbai. UPI is a super easy way to send and get money in India using a smartphone, where you link your bank account to UPI apps and a unique UPI ID is created. You can link multiple bank accounts and easily send money without the bank details of the receiver; all you need is their virtual payment address (VPA). Fintech companies like Paytm, Phonepe, and GooglePay created a very secure and user-friendly infrastructure with no transaction charges for sending and receiving money through UPI. According to the data released by NPCI, in October 2016, only 26 banks were live and 46.57 crore of transactions were done, but in October 2023, the data was astonishing: 505 live banks and 17,15,768.34 crore of transactions, almost a billion UPI transactions happening each day.

**Demonetization**

Demonetization took everyone by surprise on November 8, 2016, when the government demonetized the existing 500- and 1000-rupee notes and replaced them with the newly designed 500 and 2000 rupee notes. The primary objective was to restrain the circulation of black money and promote digital and cashless transactions. There was a huge amount of cash in the market; everyone was in the queue to exchange notes [2]. People were left with no alternative but to use digital payment, and this led to an increase in the use of online banking services, checks, e-wallets, and banking cards for all the basic transactions. The NPCI data showed that UPI transactions made a breakthrough from just 1,03,060 transactions in October 2016 to 91,67,277 transactions in May 2017, recording a staggering 89-fold growth.

Value-wise, UPI recorded a growth of Rs. 0.49 billion to 27.65 billion, more than 56 times the growth during the same period. Digital transaction volumes grew 43% between November and December of 2016.

**Government Initiatives**

The government has actively encouraged online payments since 2016; their main purpose is the “faceless, paperless, cashless” digital Indian economy. They kicked off with a couple of initiatives: the Pradhan Mantri Jan Dhan Yojana, a final inclusion initiative launched in 2014, and the Digital India program to empower digitally in 2015. Pradhan Mantri Jan Dhan Yojana exceptionally helped India reach the 457 million new bank accounts mark. Citizens were encouraged to link their unique biometric Aadhaar identity and their mobile numbers with their bank accounts, empowering citizens across the country to digitally access their accounts and participate in the digital economy [3]. The aim of the Digital India program was to transform India into a digitally empowered and knowledge-based economy and to extend digital payment to every segment of the country. The promotion of digital payments was given the highest priority by the government, and the one entrusted with it was the Ministry of Electronics and Information Technology (MeitY). The goal was to provide convenient, affordable, quick, easy, and secured facilities to all the citizens.

**Covid-19 Pandemic**

COVID-19 was the worst nightmare in human history. We were clueless about everything, but it actually helped accelerate the digitalization of payments. According to the NCPI data, there was a sharp decline in digital payments because of the lockdown and shutdown. But people began to realize the benefits of contactless and cashless payments [4]. They were safer and more convenient, which influenced customers to use digital payments. UPI transaction volume continuously declined in 2020 until April, falling 19.8% from last year, according to the RBI annual reports. However, the effect of social distancing showed a remarkable recovery as the lockdown was gradually lifted and it logged a record 1.34 billion transactions in June 2020. Even the Rupay card transactions at e-commerce jumped to 237% in April from just 76.8% in February 2020. A similar amount of growth was recorded in all the digital payment methods (credit card, debit card, UPI, POS, PPIs, etc.).

**LITERATURE REVIEW**

Sumathy and Vipin conducted their study in 2017, when the digital payment revolution was in its initial stages [5]. The main objective of their study was to investigate the determinants of safety perception and the attitude and awareness level towards digital payments. Their aim was to shed light on how the dynamics of financial transactions shifted from cash to cashless. India has diverse digital modes of payment, like UPI, AEPS, USSD, mobile wallets, banking cards, and micro-ATMs, which indirectly helped government’s Digital India initiatives. India going digital, the emergence of next generation payment services, the regulatory environment, and enhanced customer experience contributed to the growth of digital payment. To understand customer perception, the author conducted a sample survey through interviews with 100 people from Malappuram District of Kerala, and they found that there is no significant difference in the level of awareness of digital payment systems between males and females. The digitalization of payment is being considered a milestone in the journey towards a cashless future economy in India, as the digital India slogan says, "Faceless, Paperless, Cashless society".

Chaubey and Kumar, in their research paper focused on how human behaviour changed towards digital payment after demonetization resulting in to digital revolution [6]. Here they have talked about how earlier people used to hesitate to make digital payments, but due to demonetization, they were left with no choice other than making payment digitally. Thereafter, India saw change in the behaviour of people regarding digital payment, they understood how convenient, fast and safe digital payment is. The misconceptions regarding digital payment faded away as people started using digital payment because of demonetization. Digital Payment has also helped government to keep track of money and prevent black money market. As per the report, 83% people shifted to digital payment after demonetization, 7.8% did not shift to digital payment and 9.3% shifted to digital payment for some time after demonetization.

Ramasastri's research underscores payment systems' crucial role, akin to financial plumbing [7]. The Reserve Bank of India's (RBI) leadership, employing technologies like the MICR system, is pivotal. Regulatory frameworks, exemplified by the National Payments.

Corporation of India (NPCI) and Clearing Corporation of India Limited (CCIL), amplify RBI's impact. Ramasastri highlights transformative shifts like prepaid instruments and NPCI-driven innovations such as Cheque Truncation System (CTS) and Unified Payment Interface (UPI). Recent strides, including ISO 20022 standards in RTGS and exploration of Blockchain, showcase India's proactive stance in reshaping payment systems [7].

The article, "An Overview on Digital Payments," authored by Franciska and Sahayaselvi, examines the impact of Information Technology on digital transactions [8]

Published in the International Journal of Research (October 2017) [8], the study explores the surge in digital payments during India's demonetization, reaching 50.74 billion and 97.70 billion in November 2016 and December 2016. It discusses various payment modes, including banking cards, USSD, AEPS, UPI, mobile wallets, mobile banking, internet banking, and point of sale machines, covering transaction timings, limits, and authentication methods. Recommendations include government initiatives, concessions for digital transactions, and training programs to enhance digital literacy research on India's digital payment landscape reveals a surge in transactions post-demonetization. Studies by Sharma and Kansal [9] and Kakade and Veshne [10] highlight mobile banking adoption challenges, while Pande etal. [11] delve into e-payment gateway models. Current trends, as depicted by RBI's 2022 discussion paper, emphasize cost-effective digital systems. Amid this, Omarini examines Fintech's impact [12]. A gap analysis indicates a need for comprehensive transaction charge comparisons. Authors collectively suggest that digital payments play a pivotal role in India's economic transformation [13, 14].

Singh and Rana's study in the Journal of Internet Banking and Commerce explores the evolving landscape of digital payments in India [15]. Contextualized post-demonetization, the study assesses the impact of factors such as increased internet connectivity, government initiatives, and diverse payment modes. Findings indicate significant post-demonetization growth, especially in digital wallets. The literature integrates global insights on mobile payments, emphasizing security concerns. Barriers like premium pricing and complexity hinder widespread adoption. Notably, education influences positive perceptions. The research, employing ANOVA and frequency analysis, identifies key attributes driving consumer satisfaction, providing crucial insights for stakeholders navigating India's digital financial transformation.

The work explores the impact of Unified Payment Interface (UPI) on financial literacy, inclusion, and economic development in India. UPI, a digital platform, positively influences financial literacy. Financial literacy, in turn, significantly affects financial inclusion, and the association of financial inclusion with economic development is mediated by trust. The study emphasizes UPI's role in supporting not only financial literacy but also contributing to the financial inclusion and economic development of the poor, suggesting its potential for effective policymaking.

In November 2016, the number of digital transactions were 24.13 crore and after demonetization it augmented up to 43.64 crore till September 2017, that depicting an increase of 80.85% according to the research done by Dadhich et al. [16]. There is great impact in all digital transactionsfrom RTGS, NEFT, CTS, UPI, USSD, SMART CARDS, PPIS and Mobile banking. The total number increased from 671.5 million to 964.9 during 2016 to Oct 2017. We can also say that increased usage of internet and increased financial awareness has resulted in gigantic growth in number of various digital payment modes, but four of the major independent variables namely security system, government regulations, convenient, productivity and flexibility are more significantly associated with consumer’s intention towards digital payment than technical know-how and internet access.

**METHODOLOGY**

The data used in the report is secondary data that is collected from articles, books, and research reports. The research is all about understanding how digital payments revolutionized India. What were the events that resulted in the revolution? We have derived the observation that there are some major events that resulted in the growth of digital payments, such as the introduction of UPI, the launch of the Digital India program, demonetization, and COVID-19. All these events together made a huge impact on the Indian digital payment system [17]. Today, India has the biggest user base for digital payments. From 1,03,060 transactions in 2016 to 27.65 billion and still counting. We also studied papers related to how human behaviour impacts the revolution of digital payment and other factors that have impacted the revolution of digital payment. It also had a great positive impact on the development of the Indian economy. We also used tabular and graphical data to understand the growth of digital payments in the department [18].

**OBJECTIVE**

1. The aim of the study is to understand the digital payment revolution and its effect on the Indian economy.
2. To understand the shift in the consumer mindset during the demonization and COVID-19 crises.
3. To study the major initiatives by the government that made India a global leader in digital payments.

**Data and Analysis**

UPI was launched on April 11, 2016; represent the growth in the number of users since then. In October 2016, the total UPI transaction amount was 0.49 billion rupees, which further increased in November 2016 to 1 billion and to 19.02 billion in February 2017 and has been growing since, as shown in Figure 1 [19]. One of the major reasons was demonetization. There was a huge cash shortage in the market, and people were left with no choice but to use digital payments. In May 2017, the total UPI transaction amount was 27.65 billion. Though we can also observe a small decline in the amount of UPI transactions in the month of April-17, we can safely say that there is a slow and steady growth in the amount of UPI transactions every month as shown in Table 1 [20].

In 2022, India recorded 89.5 billion real-time digital transactions, which contributed 46% of global real-time payments. In 2021, India made 48.6 billion real-time digital payments. This year, the total number of digital transactions almost doubled. India is followed by Brazil, with 29.2 billion transactions [21]. China is third with 17.6 billion transactions. Thailand is at fourth and South Korea is at fifth, respectively.

**RESULT**

India's money story is changing fast, thanks to digital payments. In the year 2023, a whopping 100 billion digital transactions happened, showing how much people prefer cashless ways, especially through the popular Unified Payments Interface (UPI). Back in 2016, UPI transactions were tiny, just 1,03,060 in October, but by 2023, they shot up to a massive 17,15,768.34 crore in October.

This big shift to digital payments happened because of things like getting rid of certain money notes in 2016, more people using the internet, and the challenges of the COVID-19 pandemic. It is not just about how people pay; it is also about making sure everyone gets included. Government plans like opening 457 million new bank accounts through programs like Pradhan Mantri Jan Dhan Yojana and Digital India played a big role. The Reserve Bank of India (RBI) made sure these digital transactions were safe and even has plans for a new kind of digital money. As India aims for a 5 trillion-dollar economy by 2025, the digital payment revolution is a star player, showing a country confidently moving forward in a world where new ideas are always popping up.

**DISCUSSION**

People in cities and villages changed how they use money, especially with the rise of apps like Paytm and GooglePay. But there were challenges too, like hackers causing trouble in UPI transactions. Still, the Reserve Bank of India (RBI) made sure digital payments stayed safe and even has plans for a Digital Currency in the future.

Looking at studies and research, we saw how people's behaviour changed after demonetization. About 83% of people started using digital payments more. Fintech companies and government programs also played a big role in this digital money journey.

By checking out different events like the launch of UPI, Digital India program, demonetization, and the COVID-19 impact, we found out how India became a big player in digital payments. From just over 1,00,000 transactions in 2016 to a mind-blowing 27.65 billion, digital payments have become a part of everyday life in India.

**CONCLUSION**

In a nutshell, India's shift to digital payments has been incredible. Imagine, over 100 billion digital transactions happened in India in 2023! Thanks to the success of the Unified Payments Interface (UPI), which made sending and getting money super easy through smartphones. The revolution began in 2016 with demonetization and kept growing, helped by more internet access, the impact of COVID-19, and government support. So, what did we learn? Digital payments are not just changing how we buy things, they are also helping India become a 5trillion-dollar economy by 2025. It is not just about money, it is about making sure everyone, no matter where they live, can be a part of the digital world.

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