# Digital Transformation of Financial Sector in India- Evolution, Issues and Challenges

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*The Indian financial sector has made significant strides in its digital journey, driven by government initiatives, technological innovation, and changing consumer behavior. This transformation has not only improved access to financial services but also increased its efficiency and transparency. The adoption of digital financial transactions in India is essential for promoting financial inclusion, convenience, transparency, and economic growth. It empowers individuals, reduces costs, enhances security, and is in synch with the government's agenda for encouraging digitalization and financial literacy in the country. Encouraging digital adoption will likely continue to be a priority in India's efforts to modernize its financial sector and promote economic development. The growth of UPI transactions in India can be attributed to its simplicity, interoperability, government support, security features, low transaction costs, and widespread acceptance. It has not only transformed the way Indians transact but has also been a catalyst for improving financial inclusion and digitalization in the country. Ongoing education, robust security measures, and improvements in infrastructure are crucial for the sustainable growth of digital financial payments in India. Additionally, the advent of COVID-19 pandemic increased the speed of digital financial transactions in many countries, including India, further emphasizing the importance of digital payment systems in today's global economy. Inspite of tremendous growth in the digital transactions in India a number of challenges like internet connectivity, cyber frauds, technological disruptions, language barriers, limited computer literacy etc. pose a sizeable threat to the growth of digital financial transactions in India and has the capacity to create disparities between the haves and have nots of the society. Addressing*

*these challenges requires a coordinated effort from government authorities, financial institutions, technology providers, and users themselves. The article traces the evolution of digital journey in India, the need for adoption of digital financial transactions, reasons for growth of digital transactions, challenges faced in its implementation, spread of digital transactions globally and the way forward.*

*Key words: cyber frauds, cyber security, demonetization, digital, digital India, financial, financial inclusion, fintech, mobile wallets, NPCI, UPI.*

**Introduction**

The financial ecosystem in India has for long been bossed by the trading community, middlemen and brokers who used traditional methods of recording and analyzing the financial transactions. However, over a period of time, the traditional methods have given way to coolness of spreadsheets and softwares using desktops and laptops. This has been made inevitable because of the fast spread of digitization in the financial sector. Digital transformation in the financial sector refers to the adoption of relevant technologies to facilitate the customers; augment processes of operations and create innovative products and services as per the needs of the customers. This process actually involves a number of novel methods including designing mobile banking apps, using artificial intelligence to improve customer service and adoption of block chain technology to provide foolproof and secure financial transactions. The journey of the Indian financial sector towards digital transition started in the early 2000s, with the privatization of banking sector. These banks in the private sector adopted the best technological practices like online banking, plastic cards and ATMs to provide a seamless banking experience to the Indian consumers who had been traditionally starved of such products and services. The speed of adoption of digital financial services in India was initially slow but over a period of time the pace has increased substantially basically due to the improved accessibility and strengthening of the digital ecosystem and the growing appetite of the Indian consumers for digital financial services even in the far-flung remote areas. The Government of India's enthusiasm and push to achieve a cashless economy, especially after the demonetization drive in 2016 has proved to be a catalyst for the fast transformation of cash economy to the digital one. Digital India, the flagship program of

the Govt. of India, has also contributed immensely to creating the awareness, adoption and growth of the digital financial services in the country. Since the last decade the digital payment revolution has struck the country with the usage now reaching the masses. The successful trinity of ADHAAR or the unique identity of each citizen, Jan Aadhaar universal bank accounts and burgeoning smartphones penetration with low cost data availability has accounted for the boom in digital financial transactions.

**Review of Literature**

Renu Singh and Garima Malit (2019) observe that the banking services have improved steadily with the adoption of digitalization in the country. This has enhanced the customer services and actually provided them all products and services at their doorsteps using a laptop or a smart phone. Though, the Indian banking industry has adopted the latest technology for providing best services to the consumers but there has been a substantial difference between the rural and urban customers. The urban banking customers, due to various reasons, have adopted the technology well, whereas the rural ones still have a number of issues in the usage of the technology for conducting financial transactions. The article evaluates the various openings of growth due to the increased rural banking and also the pitfalls associated with the same. It also highlights the significance of increasing financial literacy in today's time.

Shruti Sharma and Himani Upreti (2022) remark that all organizations need to adapt to the changing environment in order to survive in this cut throat competition. They should adopt latest tools of artificial intelligence and automation for not only their survival but also their future growth. The organizations in the financial sector are no exceptions and, therefore, they should also keep pace with the changing technology in order to compete effectively, economically and efficiently in today's competitive era.

Inese Mavlutova, Aivars Spilbergsetal (2020), observe that the financial sector is changing due to the advent of novel, new technologies especially digital modes of payments. As a result, the financial sector is becoming sustainable due to increasing efficiency in its operations and widening the customers base by addition of all in the formal banking sector. The study highlights two aspects firstly the trends of changes in financial sector due to adoption of technology and the increased sustainability of financial institutions due to the

new technology. Secondly, it focuses on the correlation between the increase of digital payments and its impact on the operational efficiency and financial inclusion of the financial institution's in Baltic States vis a vis various countries in Europe.

Lambert Kofi Osei, Yuliya Cherkasova and Kofi Minta (2023) conducted a study primarily to review the intellectual framework of the digital banking transformation. The authors' findings conclude that countries including UK, USA, Germany and China have conducted the largest number of studies regarding the issue of digital banking transformation.

Dr.S.Amudhan, Dr. Sayantani Banerjee, Dr.J.Poornima (2022), observe that theorganization, data, software and technology are the four major players involved in digital transformation. In the context of India, its banking system plays a crucial role as trustees of public money and its parking in the relevant profitable business. In India and similarly placed third world countries the banks play an important role in the public finance domain as other financial institutions are still evolving. Therefore, it is vital that the banks' stability be ensured. The article concluded that adoption of digital banking services has a significant impact on the rural customers.

Dr. Anand Patil remarks that the usage of digitization in the financial sector has increased due to the advent of fintech sector. Various financial sector companies in India have adopted innovative technology to address the growing aspirations of the people. The author feels that a number of new opportunities and related challenges have arisen due to the advent of technology in our financial ecosystem. This paper tries to address those opportunities and related barriers caused by digitalization in the financial arena.

In this study Fotis Kitsios, Ioannis Giatsidis; Maria Kamariotou (2021) seek to examine the usage of digital transformation in the realm of banking in Greece. A sample of one hundred and sixty-one employees of Greek banks participated in the survey. This paper studies the perception of bank employees with regard to new technologies. The study provides a roadmap for executive education in the Greek banks and suggests targeted training programs for the employees to for smooth transition towards digital banking.

Cristian Alonso, Tanuj Bhojwani, Emine Hanedar, Dinar Prihardini, Gerardo Una and Kateryna Zhabska observe that in India, the digital payments have attained wide acceptance with only the UPI taking care of around 68 percent of all financial transactions made. The

adoption of digital payments has augmented the number of customers of micro & small traders, helped in formalizing their financial records and improved their chances of getting credit from formal channels. Around 45 lakh individuals and small businesses have reaped the benefit of formal credit. Due to this change around 88 lakh new taxpayers have registered for GST network till 2022 thus resulting in resilient tax collection. The paper concludes that certain systems and processes of India's digital transformation like ADHAAR would be difficult to reproduce by other countries.

**Objectives**

The objectives of the study are listed below: -

- To understand the digital journey of Indian financial sector.
- To highlight the initiatives undertaken by Government of India for promoting digital financial transactions in the country.
- To understand the reasons for the continuous acceleration of financial transactions in India.
- To study the challenges in the growth of digital financial transactions in India.
- To compare the usage of UPI transactions in India with other countries.
- To highlight the way forward for the digital finance in India.

**Research Methodology**

The research methodology followed is as under:

**Data Collection**

The study is based on data derived from secondary sources. The said information has been collated from various published sources like literature published by Ministry of Finance, Government of India, RBI, NITI Ayog, journals, magazines, newspapers, research papers, websites, etc.

**The Digital Journey of Indian Financial Sector**

Digital payments include those financial transactions wherein no physical cash is involved and the transactions use the technology for the transfer of money from one bank account to the other. Various types and methods of digital financial modes are being used in our country

for trade and commerce. These include: ATM Cards, Micro ATMs, Bank Prepaid Cards Aadhaar Enabled Payment System (AEPS), Internet Banking, Mobile Banking, PoS Terminals, Unified Payments Interface (UPI), Mobile Wallets, Unstructured Supplementary Service Data (USSD),etc.

The usage of digital technology has revolutionised the payments methods and thus the functioning of financial sector in India which has been transformed into an efficient, inclusive and effective tool for the benefit of the consumers. The novel innovations introduced in the financial sector are discussed hereunder:

- ***Mobile Wallets****:* Companies like Paytm, PhonePe, and Google Pay have introduced mobile wallets that enable users to store money digitally and make quick payments for a wide range of services.
- ***Digital Lending Platforms:*** Several fintech companies and digital lending platforms have emerged, offering quick and hassle-free loans to individuals and businesses. These platforms use data analytics and AI to assess creditworthiness.
- ***Fintech Ecosystem:*** India has witnessed a burgeoning fintech ecosystem with start-ups and established financial institutions collaborating to offer innovative solutions across various domains, including payments, lending, insurance, and wealth management.
- ***Rural and Urban Connectivity:*** The penetration of smartphones along with affordable data connections both 3G and 4G in the urban as well as rural India has played a pivotal role in expanding access to digital financial services.
- ***Digital Insurance:*** Insurtech start-ups have simplified the purchase and management of insurance policies through digital channels, making it easier for individuals to protect their assets and health.
- ***Online Brokerages:*** Online trading platforms like Zerodha and Upstox have democratized stock trading by offering low-cost trading and user-friendly interfaces.
- ***Robo-Advisors:*** The use of artificial intelligence and Robo-advisors for furnishing investment and portfolio management advisory to the clients after studying the algorithms.

- ***KYC Digitization:*** The digitization of Know Your Customer (KYC) processes has made it easier for financial institutions to onboard customers remotely, reducing paperwork and simplifying the customer experience.
- ***Open Banking:*** India has been exploring the concept of open banking, allowing third-party fintech providers to access customer data with their consent and offer innovative financial services.
- ***Cybersecurity and Data Privacy:*** As digital financial services expanded, so did concerns about cybersecurity and data privacy. Various laws and rules have been promulgated to protect the hapless investors from cyber frauds.

**Digital Financial transactions in India**

The journey of digital financial transactions in India is depicted as under:

**Table 1: Digital Payment Transactions in India from 2017-23**

| Sr. No. | Year | Digital Transactions - Current (Crore) | BHIM Transactions - Current (Crore) | Debit Card - Current (Crore) |
|---|---|---|---|---|
| 1 | 2017-18 | 2,070.95 | 91.31 | 334.34 |
| 2 | 2018-19 | 3,134.31 | 535.16 | 441.79 |
| 3 | 2019-20 | 4,571.78 | 1,251.75 | 512.38 |
| 4 | 2020-21 | 5,554.12 | 2,232.95 | 411.47 |
| 5 | 2021-22 | 8,637.87 | 4,560.79 | 414.75 |
| 6 | 2022-23 | 12,644.99 | 8,324.05 | 380.2 |

**Source: RBI, PIB, NPCI, DigiDhan Dashboard**

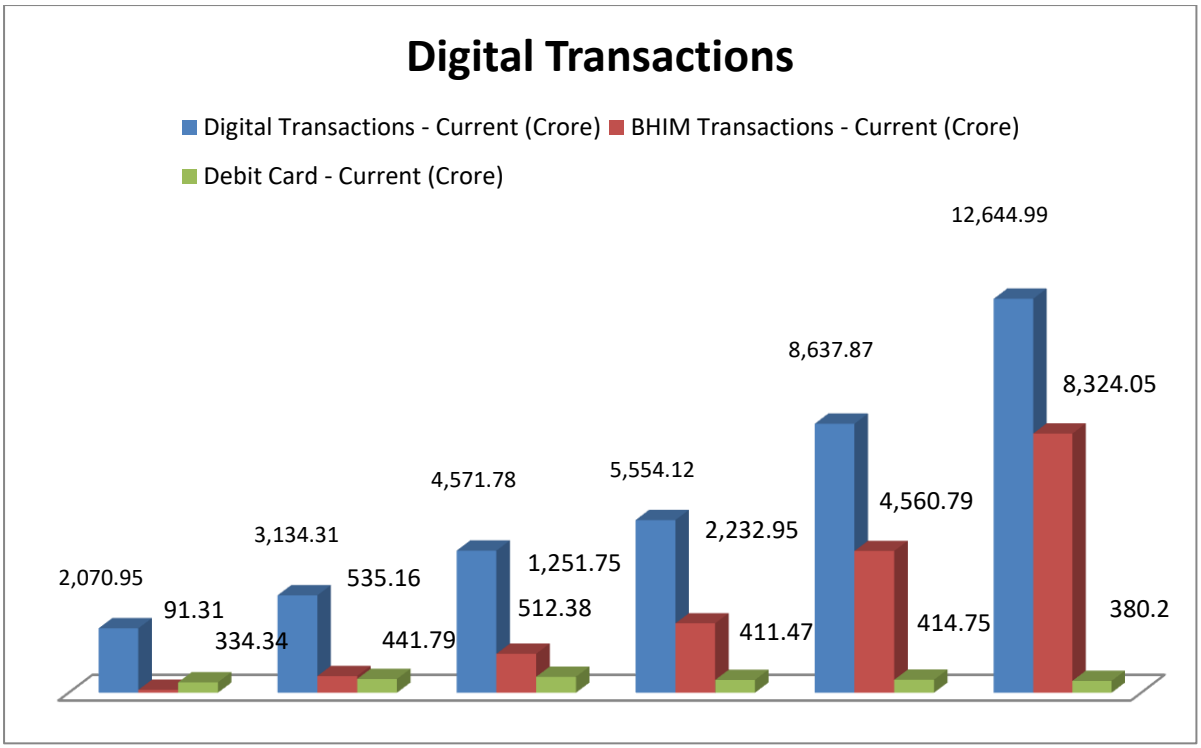
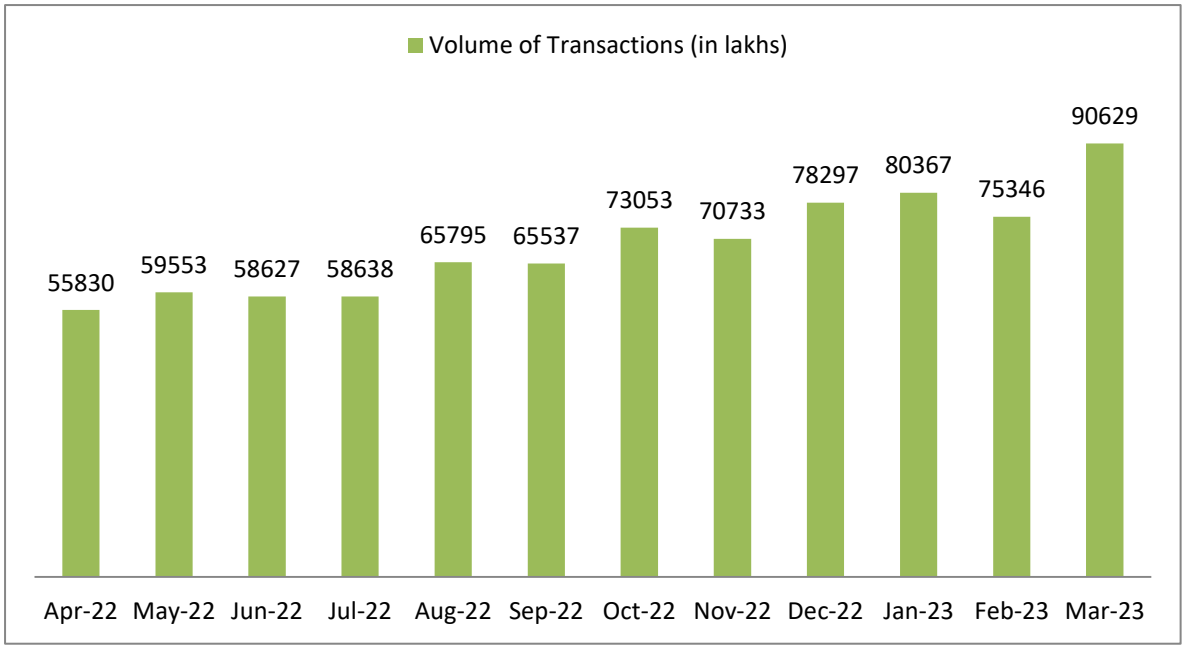



**Table 2: Monthly Growth of BHIM-UPI Transactions**

| Sr. No. | Month | Volume of Transactions (in lakhs) |
|---|---|---|
| 1 | Apr-22 | 55830 |
| 2 | May-22 | 59553 |
| 3 | Jun-22 | 58627 |
| 4 | Jul-22 | 58638 |
| 5 | Aug-22 | 65795 |
| 6 | Sep-22 | 65537 |
| 7 | Oct-22 | 73053 |
| 8 | Nov-22 | 70733 |
| 9 | Dec-22 | 78297 |
| 10 | Jan-23 | 80367 |
| 11 | Feb-23 | 75346 |
| 12 | Mar-23 | 90629 |

**Source: Ministry of Electronics and Information Technology, DigiDhan Dashboard**




As a result of all of the above technology adoptions, the digital financial transactions have increased manifolds in India, especially after COVID 19. In the past nine years, India has experienced a more than 100-fold increase, in the number of digital transactions, from just 127 crores in 2013–14 to 89880 crores as of April 2023. In order to encourage the Indian citizens to shift towards a less cash society, the GoI developed and introduced consumer friendly digital payment platforms like Bharat Interface for Money-Unified Payments Interface (BHIM-UPI), Immediate Payment Service (IMPS), prepaid payment instruments (PPIs) and National Electronic Toll Collection (NETC) system. All these platforms received tremendous response from the general public which led to a phenomenal growth in the digital financial ecosystem. Unified Payments Interface (UPI) which was launched in 2016 on a pilot basis with 21-member banks has revolutionized digital payments in India by facilitating users to make instant payments and transfer funds using their smartphones. At the time of its launch, the payments through UPI which only accounted for 6% as compared to 36% card payments has expanded to 63% vis- a- vis card payments which has shrunk to 9%, in 2021. In April 2023, 33 Cr+ Indian UPI users undertook 89880 crores digital payment transactions valued at Rs. 14.07 lakh crore, making UPI the nation's favourite method of payment. Thus, out of every four digital transactions made in India three are undertaken on UPI. One of the

global surveys by Mastercard in India in the year 2022 revealed that around 93% of Indians made digital payments last year. More than half of these transactions were done via QR codes or digital money transfer apps in India.

**Initiatives of Government for Promotion of Digital Transactions**

The Indian government, eager to achieve a cashless economy, has been actively promoting digital financial transactions as part of the Digital India program. The main objective of the Digital India mission of the GoI is to convert the country into an empowered society driven by technology and move towards a knowledge economy. It has spurred the growth of digital financial services with handy initiatives like UPI, Aadhaar-based authentication, and e-Governance services. The use of Aadhaar, India's biometric identity system, has streamlined identity verification and made it easier to access financial services. In order to promote digital payments and create awareness about the benefits of digital payments the government launched DigiDhan Mission in June 2017. Accordingly, the Government developed consumer friendly digital financial platforms like BHIM UPI, Aadhaar Pay, UPI-QR Code, debit cards, NEFT and RTGS having very little or no charges attached to them. The government also launched Aadhaar Enabled Payment System (AePS) to facilitate a bank customer especially in rural and semi urban areas to access his bank account and make transactions without an ATM machine. Affordable smartphones and cheaper internet connections are the main reasons for the fast adoption and expansion of UPI in the country even amongst the poorer sections.

**Reasons for the Growth of UPI transactions in India**

Digital financial transactions network has spread substantially in India, off late, owing to a number of factors like push by the government, increased accessibility of internet and smartphone and the unprecedented growth in online shopping. One major reason is the adoption of Unified Payments Interface (UPI), which ensures transactions from one bank to the other in real-time and the Bharat Interface for Money (BHIM) app, which is responsible for digital financial transactions using smartphones.

The key reasons are discussed as under:

- ***Demonetization:*** After the announcement of demonetization policy by the GoI in 2016, the citizens were encouraged to go for less cash using various digital financial platforms including UPI, as people sought alternatives to cash for their transactions.
- ***User-Friendly Interface:*** UPI offers a simple and user-friendly interface that allows individuals to make payments and transfers using just their smartphones. The customer friendly process makes it inclusive and easily applicable for all sections of people including the ones who are tech-challenged.
- ***Interoperability:*** This means that the clients can pay or receive money between various banks and wallets seamlessly, eliminating the need for multiple payment apps.
- ***Wide Acceptance:*** UPI is accepted by a vast network of merchants, online retailers, utility companies, and service providers across India. This widespread acceptance has made it a preferred choice for both online and offline transactions.
- ***Government Support:*** The GoI has initiated and developed various interface like National Payments Corporation of India (NPCI) and UPI for supporting the digital financial revolution. Initiatives like "Digital India" and "Jan Dhan Yojana" have helped in its adoption by promoting digital payments and financial inclusion.
- ***Security****:* UPI transactions are highly secure. They typically require two-factor authentication, with options like PIN and biometrics (fingerprint or iris scan), ensuring that only authorized users can make transactions. This has built trust among users.
- ***24/7 Availability:*** UPI transactions can be conducted 24/7, including weekends and holidays. This availability makes it convenient for users to make payments and transfers whenever they need to, without being restricted by banking hours.
- ***Low Transaction Costs****:* Many UPI transactions are either free or come with very minimal transaction costs, making it an economical choice for users as against other platforms like credit cards, which often charge hefty transaction charges.
- ***Financial Inclusion****:* UPI has played a significant role in bringing the non-banked citizens to banks. It has facilitated the citizens who were without bank accounts to open digital bank accounts and transact digitally.

- ***Direct Benefit Transfers by Government****:* The government has increasingly used UPI for disbursements of subsidies, benefits, and direct transfer of funds to citizens' bank accounts. This has driven adoption among a large segment of the population besides plugging the leaks.
- ***Fintech Innovation****:* The UPI ecosystem has seen continuous innovation from fintech companies, which have introduced a variety of apps and services built on top of the UPI platform. These include payment apps, financial management tools, and lending platforms, making UPI even more versatile.
- ***Consumer Trust:*** The success of UPI has built trust among consumers, who have come to rely on the system for everyday transactions, bill payments, online shopping, and more.

**Issues and Challenges in Digital Financial Transactions in India**

Some of the key challenges include**:**

- ***Cybersecurity Issues:***

  As UPI transactions involve sensitive financial data and personal information, they are susceptible to cyber-attacks and fraud. Cybersecurity threats, including phishing, malware, and hacking attempts, can compromise the security of UPI transactions**.** Recent data from the Indian Computer Emergency Response Team (CERT-In) alarm that India encountered a total of 13.91 lakh reported cyber fraud cases in 2022.According to another report on cyber security; more than half of the Indian population don’t have the required knowledge and skill set to protect themselves from cyber frauds.
- ***Rural Adoption:***

  Many users, particularly in rural and semi-urban areas, may not be fully aware of the security practices and risks associated with digital payments. Ensuring that users are well-informed and educated about safe transaction practices is crucial.
- ***Connectivity Problems:***

  While mobile internet penetration has grown significantly in India, there are still areas with limited or unreliable connectivity. Ensuring that UPI transactions are accessible

in remote and underserved regions remains a challenge. As against 42 % of the urban population only 15 percent of rural households have the access to good internet services. Amongst all sections, the females are the most prone to be digitally illiterate, especially in the poor households.

- ***Technology Disruptions:***

  UPI systems, like any technology, can experience technical glitches or downtime. Such interruptions can disrupt transactions and cause inconvenience to users.

- ***Dependency on Smart Phones:***

  UPI transactions heavily depend on smartphones and mobile devices. This can exclude individuals who do not own smartphones or are uncomfortable with digital technology.

- ***Limited Digital Education:***

  A significant portion of the Indian population lacks digital literacy, which can hinder their ability to use UPI effectively and securely.

- ***Network Congestion:***

  During peak usage times, UPI networks can become congested, leading to delays in transaction processing and sometimes failed transactions.

- ***Fake Apps and Websites:***

  Malicious actors may create fake UPI apps or phishing websites to steal users' personal and financial information. These fraudulent platforms can deceive unsuspecting users**.**

- ***Regulatory Issues:***

  Ensuring that UPI service providers comply with regulatory guidelines and security standards is an ongoing challenge for authorities. The evolving regulatory landscape may require adjustments to address emerging issues.

- ***Managing Digital Risks by Banks/ Financial Institutions:***

  Banks and financial institutions need to manage the risks associated with UPI transactions effectively, including fraud prevention, dispute resolution, and customer protection.

- ***Language Barriers***

  The language used in the payment interfaces is majorly English, which is foreign and non-understandable to the majority of the population. Hence, it is suggested that all interfaces be multi-lingual with wider use of local and regional languages.

- ***Interoperability Challenges:***

  While UPI is designed to be interoperable, there can still be challenges in seamless transactions between different banks and payment service providers.

- ***Limit on the Transactions:***

  UPI transactions have daily transaction limits for security reasons. These limits can sometimes be a hindrance for large-value transactions.

- ***Universal Acceptance:***

  While UPI has seen widespread adoption among consumers, ensuring that a wide range of merchants, especially small businesses and vendors, accept UPI payments can be a challenge.

**Digital Financial Transactions Globally- An Analysis**

The adoption and usage of digital transactions vary from country to country, and several nations are considered leaders in the world of digital payments. The top countries in the world in terms of digital transactions often have well-established digital payment ecosystems, high levels of internet and smartphone penetration, and a strong culture of digital commerce. As already stated India has made significant strides in digital financial transactions attaining top spot both in volume as well as value. Some of the other top countries known for their robust digital transaction ecosystems include:

- ***Brazil:*** With 29.2 million transactions, Brazil is ranked second in the digital payments. Brazil has developed a payment interface known as Pix which is similar to the UPI being used in India. Even though Brazil's population is less (around a sixth of India's), but Pix's user base is huge (approximately half of UPI's). According to a 2022 report, Pix has shown marvellous accessibility and usage in Brazil.
- ***China:*** China is one of the top countries in digital transactions, driven primarily by mobile payments. It is ranked third with 17.6 million digital financial transactions.

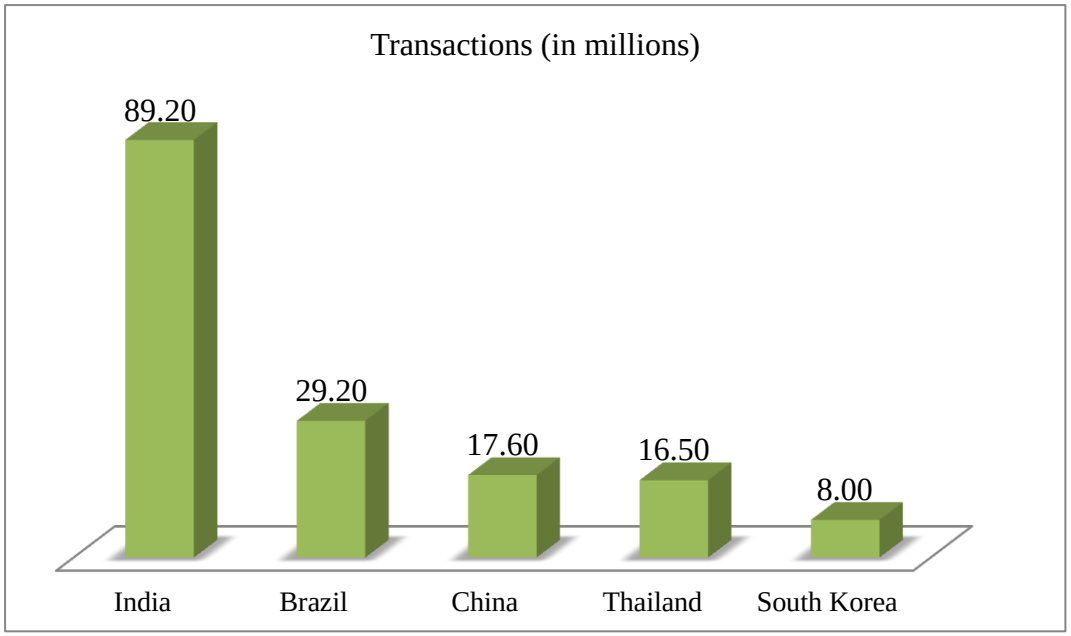
Mobile payment apps like Alipay and WeChat Pay have become ubiquitous, and cashless transactions are common in both urban and rural areas.

- ***United States of America:*** The United States has a well-developed digital payment ecosystem, with widespread use of mobile payment apps like Apple Pay, Google Pay, credit cards, debit cards and various online payment platforms. E-commerce is a significant driver of digital transactions in the U.S.
- ***South Korea:*** South Korea is known for its advanced digital infrastructure and high smartphone penetration. It is ranked fourth with 16.5 million digital financial transactions. Mobile payments, including NFC-based contactless payments and mobile wallets, are widely used for various transactions.
- ***Thailand:*** Thailand is ranked fifth with 8 million digital financial transactions which include digital trade, payments at merchants centre through mobile, and receiving digital remittances. Digital wallet usage has risen in prominence in Thailand. E-Payment infrastructure has helped Thailand to become a cashless economy. The e-Payment infrastructure created by Thailand consists of internet/mobile banking, credit card, e-Wallet, QR code; ATM card, direct debit, Prompt Pay etc. ePrompt Pay and QR code are the major financial tools driving Thailand towards a cashless economy.
- ***United Kingdom:*** UK has a strong digital payments market which uses contactless cards, mobile wallets. Faster Payments, a real-time payment system, has contributed significantly to the growth of digital financial transactions in the country.
- ***Sweden:*** Sweden has made significant progress towards becoming a cashless society. Digital transactions, including card payments and mobile payments, are widely accepted and preferred by consumers and businesses.
- ***Singapore:*** Singapore is a fintech hub with a thriving digital payment ecosystem. Mobile payment apps and digital wallets are commonly used for everyday transactions, and the country is also exploring central bank digital currency (CBDC) initiatives.
- ***Netherlands:*** The Netherlands has a well-developed digital payment infrastructure, with widespread use of contactless payments and digital banking services. iDEAL, an online payment method, is popular for e-commerce transactions.

- ***Australia:*** Australia has embraced digital transactions, with a high rate of contactless card payments and mobile wallet usage. The New Payments Platform (NPP) enables instant bank transfers and real-time payments.
- ***Canada:*** Canada has seen a growing adoption of digital payments, including mobile wallets, contactless cards, and online payment platforms. Interac e-Transfer is widely used for peer-to-peer transactions.

**Table No.3: Countrywide Comparison of Digital Financial Transactions**

| Country | Transactions (in millions) |
|---|---|
| India | 89.20 |
| Brazil | 29.20 |
| China | 17.60 |
| Thailand | 16.50 |
| South Korea | 8.00 |




**Source: Data from MyGovIndia**

**The Way Forward**

Digital payments ecosystem is expected to reach unimaginable heights in India as the country enters into the 5G era and the low latency network. There are expectations of further growth in UPI payments in emerging and younger cities. Because of the rising numbers of smartphone users and various technological advancements it is expected that digital transactions in India will reach 186 billion in volume and Rs 200 trillion in value by the year 2025. This will unlock new opportunities benefiting all the stakeholders majorly customers and merchants. The future is of digital transactions and such impressive growth of UPI only makes the future of India secure. India has taken significant strides for designing the global network of its UPI system. The NPCI International Payments Limited (NIPL) has forged partnerships with a number of friendly countries to design a huge compatible network for RuPay and UPI which will facilitate Indian citizens to make financial transactions using these platforms while they travel to the foreign shores. UPI facility is now also available for non-resident account holders with international mobile numbers across ten countries facilitating students, local businesses of Indian origins etc. Thus, NRIs seven without Indian cell numbers may be able to use UPI in these countries, therefore. The RBI and NPCI have launched two new products – UPI 123PAY and UPI Lite which allow users to transact using feature phones even without access to internet connection. The Indian financial sector is expected to continue its digital journey with advancements in blockchain technology, artificial intelligence, and machine learning, which will further enhance efficiency, security, and customer experiences.

**Table 4: Expected Growth Overall Digital Payment Market Transaction (Volume in Billions)**

| FY | Transaction (Volume In Billions) |
|---|---|
| 23-24 | 156 |
| 24-25 | 226 |
| 25-26 | 309 |
| 26-27 | 411 |

**Source: RBI, NPCI, PwC Analysis**

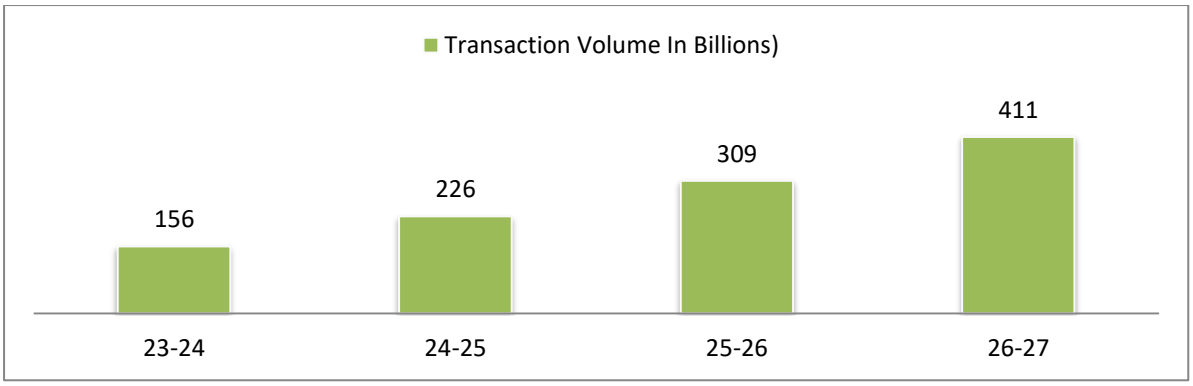
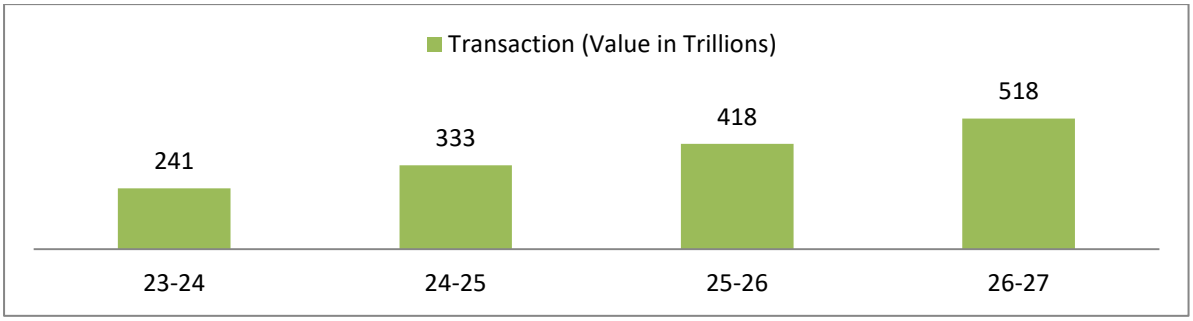



**Table 5: Expected Overall Digital Payment Market Transaction (Value in Trillions)**

| FY | Transaction (Value in Trillions) |
|---|---|
| 23-24 | 241 |
| 24-25 | 333 |
| 25-26 | 418 |
| 26-27 | 518 |

**Source: RBI, NPCI, PwC Analysis**




**Limitations**

- The study is primarily based on data derived from secondary sources.
- The research is limited by the time and cost constraints.
- The subjectivity and bias of the researcher may reduce the efficacy of the results.

**Conclusion:**

Digital payments have taken off in India during the last nine years. As a result of demonetisation wherein the Government encouraged cashless transactions and the push towards less cash by way of negligible or no transaction charges the consumers have

welcomed digital financial transactions in a big way. The growth of digital financial transactions in India and improved accessibility of the digital infrastructure to all Indians have helped improve ease of living for citizens, financial inclusion, cost savings, convenience, security, transparency and growth of business and economy. As a result, India has experienced a more than 100-fold increase, in the number of digital transactions, from just 127 crores in 2013–14 to 89880 crores in 2023 with more than 30 crores Indians using the same. These advantages have accelerated the digital financial payments in the country and changed the methods of business. The GoI has encouraged digital financial transactions in the country as part of its Digital India program. The adoption of digital financial transactions in India offers numerous benefits to individuals, businesses, and the overall economy including financial inclusion, security, consumer awareness, cutting costs etc. However, a number of challenges like internet connectivity, cyber frauds, technological disruptions, language barriers, limited computer literacy, etc. pose a sizeable threat to the growth of digital financial transactions in India. Nevertheless, it is envisioned that as the digital payment's ecosystem expands the security concerns will also arise. Today India ranks number 1 in terms of digital financial transactions both in volume as well as in number of transactions and is followed by Brazil, China, South Korea and Thailand. However, digital payment landscape is continually evolving, and the rankings may change over time as countries adopt new technologies and payment methods.

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