

Growth of digital payment in India

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Abstract

The speedy evolution of digital payment systems in India has changed the country's financial landscape, offering unprecedented convenience, security, and efficiency to consumers and businesses alike. This paper provides a comprehensive analysis of the growth of digital payment systems in India, inspecting key trends, drivers, challenges, and future scenarios. Drawing upon a series of scholarly literature, industry reports, and government publications, the paper highpoints the transformative impact of digital payment technologies on financial inclusion, economic development, and the broader digital economy. Key areas explored include the rise of mobile payments, the role of government initiatives and regulatory frameworks, the emergence of fintech startups, and the adoption of innovative payment technologies such as UPI (Unified Payments Interface) and mobile wallets. The paper also discusses the challenges and barricades hindering the common adoption of digital payments, including infrastructure limitations, cybersecurity concerns, and regulatory complexities. Finally, the paper offers insights into future trends and prospects for further growth, emphasizing the need for continued investment in digital infrastructure, enhanced cybersecurity measures, and targeted policies to endorse financial inclusion and digital literacy. Overall, this paper provides

valued insights into the dynamic landscape of digital payments in India and offers valuable implications for policymakers, industry stakeholders, and researchers.

Key points : Digital payment, Economy, UPI.

Introduction

Payment system is a backbone of every economy. Payment system plays a key role for the development of the any countries economy. Digital payment system is new and developing payment system worldwide. The development of digital payment has been a extraordinary journey, altering the way we conduct financial transactions. From its modest beginnings to its current universal presence, digital payment has undergone substantial advancements driven by technological innovation and changing consumer behaviours. In 2022 with 89.5 million transactions India tops the table of digital payment beating developed countries followed by Brazil with 29.2 million transactions. In 2022 46% of total payment is made using digital payment mode.

History of digital payment in world

The first digital payment can be drawn back to early 1960-70s with the launch of the Automatic Teller Machine (ATM) and the growth of the Electronic Funds Transfer (EFT) system. One of the initial examples of digital payment happened in 1967 when Barclays Bank in London introduced the first ATM, permitting customers to withdraw cash using machine-readable plastic cards with a magnetic stripe. At the same time, in the United States, the EFT system was developed to facilitate electronic transactions between banks, removing the need for physical cheques or cash. The first successful electronic fund transfer using the EFT system happened in 1972 when students at Stanford University complete purchases at their campus bookstore using encoded cards. These initial digital payment systems laid the foundation for the digital financial transactions we use today. While they were mainly limited to bank-to-bank transfers and cash withdrawals, they set the stage for the expansion of more sophisticated electronic payment methods, such as credit cards, online banking, and mobile payments, which emerged in subsequent decades.

History of digital payment in India

The first digital payment system in India was "Electronic Clearing Service" (ECS) in the 1990s introduced by the Reserve Bank of India (RBI). ECS facilitated the electronic transfer of funds among bank accounts, allowing automated payments for recurring bills such as utility bill, loan repayment, and salaries. However, the transformational period in digital payments in India came with the launch of the Unified Payments Interface (UPI) in April 2016 by the National Payments Corporation of India (NPCI). UPI revolutionized digital payments by enabling instant money transfers between bank accounts via mobile phones. UPI allowed users to link their bank accounts to a mobile app and make seamless peer-to-peer transactions with the help of virtual payment addresses (VPAs) or QR codes. Since its launch, UPI has perceived exponential growth in acceptance, enabling millions of transactions daily and changing the way Indians transact digitally. UPI became the backbone of digital payment platforms in India, contributing significantly to the country's journey towards a digital economy.

Digital payment modes in India :

India has seen remarkable growth in digital payment systems over the past few years, driven by government steps such as demonetization and the promotion of digital transactions. Few digital payment systems mostly used in India are :

Cards (Debit/Credit/Travel/Others) : Banking cards offer consumers higher security, convenience, and control than other payment modes. The wide range of cards available – including credit, debit and prepaid – offers more flexibility, as well. These cards provide 2 factor authentication for secure payments like security PIN and OTP. Ru-Pay, Visa, MasterCard are some of the example of card payment systems. Payment cards give people the power to purchase items from shops, on e-commerce sites, through mail-order and over the telephone. They save both customers and merchants' time and money, and thus enable them for ease of transaction.

USSD : Unstructured Supplementary Service Data : *99# service has been introduced to take the banking services to common man across the country. Banking consumers can avail this service by dialling *99#, a “Common number across all Telecom Service Providers (TSPs)” on their mobile phone and transaction via an interactive menu displayed on the mobile screen. Key services offered under *99#

services are inter bank account to account money transfer, balance enquiry, mini statement besides host of other services. *99# service is currently offered by 51 leading banks & all GSM service providers and can be accessed in 12 different languages. *99# service is a unique interoperable direct to consumer service that brings together the diverse ecosystem partners such as Banks & TSPs (Telecom Service Providers).

AEPS : Aadhar Enable Payment System : AEPS is a bank lead model which permits online interoperable financial transaction at POS (Point of Sale / Micro ATM) through the Business Correspondent (BC)/Bank Mitra of any bank using the Aadhaar authentication.

UPI : unified Payment Interface : UPI is a real-time payment system established by the National Payments Corporation of India (NPCI). It allows users to transfer money between bank accounts instantly using their mobile phones. UPI has gained massive popularity due to its ease of use and interoperability across different banks and payment apps.

Mobile Wallets : A mobile wallet is a way to carry cash in digital format. You can link your credit card or debit card information in mobile to mobile wallet application or you can transfer money online to mobile wallet. Rather than using your physical plastic card to make purchases, you can pay with your smartphone, tablet, or smart watch. An individual's account is required to be linked to the digital wallet to load money in it. Most banks have their e-wallets and some private companies. e.g. Paytm, Free charge, Airtel Money, Jio Money, SBI Buddy, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, etc.

Bank Prepaid Cards : A prepaid card is not linked to a bank account. Instead, you lay money into the card account, which is called loading money onto the card, before you utilise it. With a debit card, you are spending money you have in your bank account. Generally, with prepaid cards and debit cards, you can not use more than you have loaded on the card or than you have in your account. If you try to spend more, the transaction is denied. However, some banks allow you to make overdrafts, and so do some prepaid cards. Overdrafts allow you to overspend, and then you must replace the

money. Plus, you have to pay an overdraft fee for each transaction that overdraws your account.

POS : Point Of Sale : A point of sale (POS) is the place where sales are made. On a macro level, a POS may be a mall, a market or a city. On a micro level, retailers consider a POS to be the area where a customer completes a transaction, such as a checkout counter. It is also known as a point of purchase.

Internet Banking : Internet banking, also popular as online banking, e-banking or virtual banking, is an electronic payment mode that enables consumers of a bank or other financial institution to conduct a range of financial transactions via financial institution's website.

Mobile Banking : Mobile banking is a service provided by a bank or other financial institution that allows its consumers to conduct various types of financial transactions remotely using a mobile device such as a mobile phone or tablet. It uses software, generally called an app, provided by the banks or financial institution for the purpose. Each Bank provides its own mobile banking App for Android, Windows and iOS mobile platform(s).

Micro ATMs : The micro platform will allow function through low cost devices (micro ATMs) that will be connected to banks across the country. This would allow a person to instantly deposit or withdraw funds regardless of the bank associated with a particular BC. This device will be based on a mobile phone connection and would be made available at every BC. Consumers just have to get their identity authenticated and withdraw or put money into their bank accounts. This money will come from the cash drawer of the BC. Essentially, BCs will act as bank for the customers and all they need to do is verify the authenticity of customer using customers' UID. The basic transaction types, to be supported by micro ATM, are Deposit, Withdrawal, money transfer and Balance enquiry.

Review Of Literature

- Anjaneyulu D (2022) analysed Status of digital payment systems in India and suggests that the stake holders still have a major role to play in developing infrastructure for the future digital economy. All efforts and innovations should be directed towards providing quality service to the users, parties, merchants and participating entities.
- Zala, Parulben. D. (2021) in her study of awareness perception about digital payments in the selected cities of Gujarat analysed that although technological origination made human life much easy and comfortable than ever before and the historic decision of demonetization taken on November 8, 2016, by Hon. Prime minister and pandemic period of COVID 19 were major drives for a move towards a cashless economy. Hence, an attempt is made in the present study to check the awareness and perception about digital payments in selected cities of Gujarat. Sincere efforts were made to study various aspects of digital payments along with a study of awareness and perception about digital payments; the major factors, which affect digital payments, have also been studied in the present study. ANOVA test, t-test, Chi-square test, factor analysis, have been used with the help of SPSS and excel at a 5% significance level. It was found that people of Gujarat are aware of digital payments and certain demographic factors affect the perception of people. The study is useful to different stakeholders such as users, consumers, government, students, researchers, service providers and society and all those who are working for the betterment of people, in different ways. It is expected that such types of study may help to plan different strategies, which increase usage, adoption and awareness about digital payments.

Mohana Priya M (2021), From the research conducted, it is concluded that the demographic variables like Gender and Qualification, and Retail business variables like type of organization, turnover of the business, size of business, amount of sales made using digital wallet payment option, number of times using digital wallet per day, etc., have strong influence on the retailers'

perception on the various aspects of Digital Wallet Payment Option and their impact on shopping experience of customers and business performance of the retailers. These variables also influence the problems faced by the retailers while using digital wallet payment option for their sales. The level of awareness on the various digital payment options is more than adequate and the usage of digital wallet payment option for their business transactions is also above the average.

- Pavithra C B (2021), The digital transactions in India will amplify in a considerable rate in the forthcoming years. “Digital payments in India to reach \$1 trillion by 2023”, stated in Credit Suisse Report. The digital mode of payment will be the epitome of payment activities. It can be concurred that Digital payment will be the future of fund transfer and it will dominate the arena of payment system in India.

Growth of digital payment system in India

The growth of digital payments in India has been nothing but transformation in recent years, driven by several key factors:

Government Initiatives: The Indian government has dynamically boosted digital payments through initiatives like the Digital India campaign and the launch of platforms such as BHIM (Bharat Interface for Money) and UPI (Unified Payments Interface).

Demonetization: The demonetization move in 2016 acted as a booster, pushing millions of Indians towards digital transactions due to a shortage of currency.

Smartphone Penetration: Increase in number of smartphone users, coupled with reasonable data plans, has empowered a large population to access and use digital payment services.

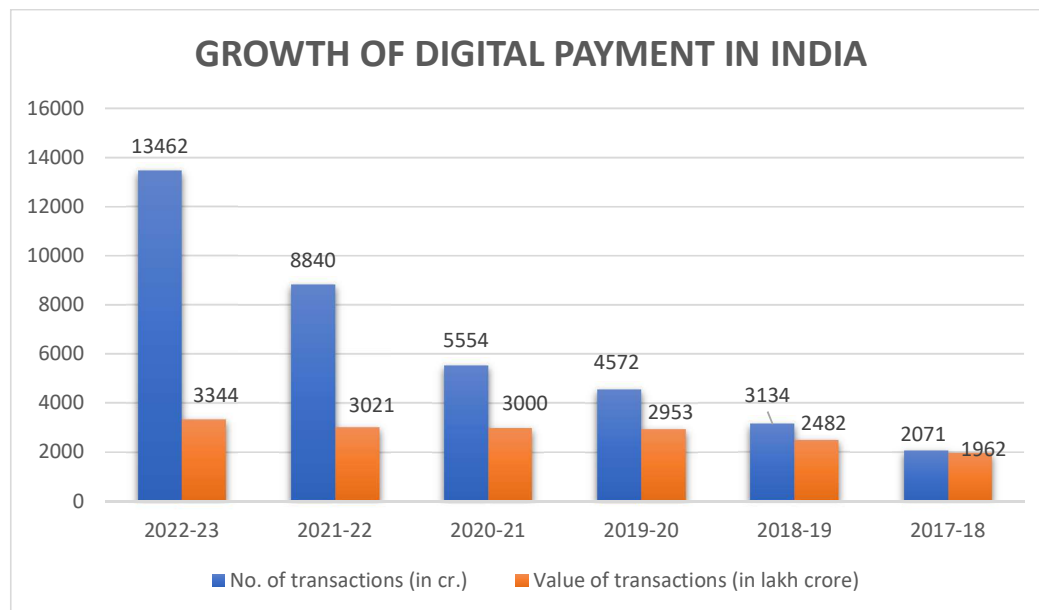
Fintech Innovation: Fintech companies and startups played a vital role in developing user-friendly payment solutions, offering everything from digital wallets to payment gateways tailored to Indian needs.

Consumer Behaviour Shift: There has been a massive shift in consumer behaviour towards convenience and security, favouring digital transactions over cash.

Regulatory Support: Regulatory bodies like the Reserve Bank of India (RBI) have implemented supportive policies and guidelines to boost a secure and efficient digital payments ecosystem.

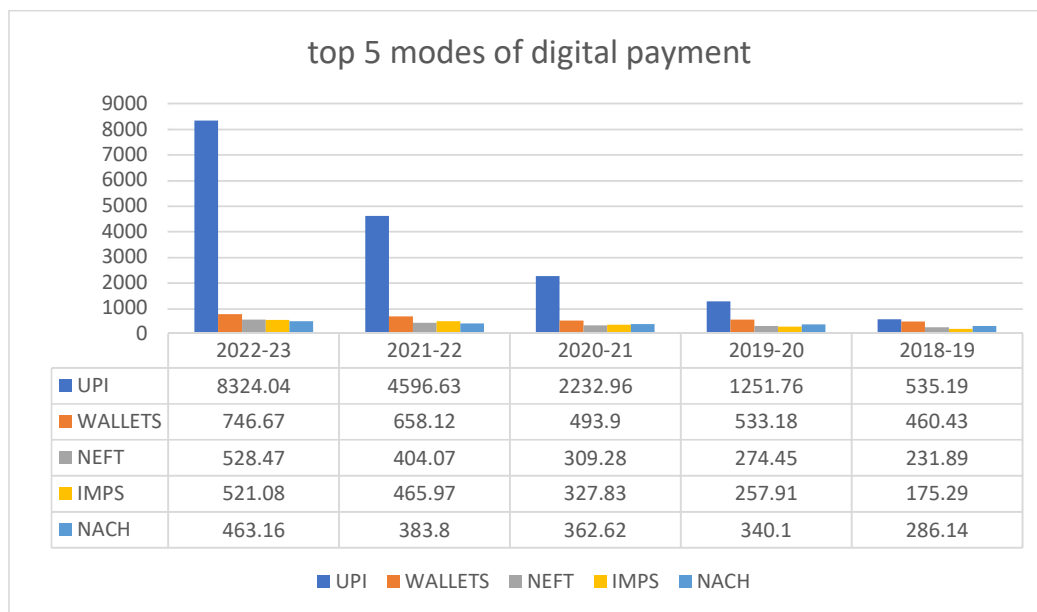
E-commerce Boom: The speedy growth of e-commerce in India has further boosted digital payments, as customers increasingly prefer paying online for goods and services.

Government of India is dedicated to expanding digital transactions in the Indian economy. The promotion of digital payments ecosystem is an essential aspect of Digital India mission and is aimed at digitizing the economy with subsequent benefits of efficiency, transparency and quality. In last 9 years, the volume of digital transactions in India has increased from a just 127 crore in 2013-14 to 13,462 crore transactions in 2022-23, which is over 100 times increase.



(Sources : DigiDhan dashboard)

India is on the top of the world using digital payment. Even China and other developed countries cannot beat India for next 4-5 years. From the bellow data it will be clear that which mode of payment is mostly used for payment.



(Sources : DigiDhan dashboard)

Every digital payment mode has shown growth but UPI is the mostly used mode for digital payment system in India since last five to six years. In April, 2017 UPI transactions were only 70 lakhs and in January 2024 it is 1,22,028. It shows that how UPI is most used payment mode for users. Mobile wallets like Paytm, G pay, Phone pe etc. also have increased their users. Before the launch of UPI mobile wallets are the most used digital payment mode in India.

Overall, the landscape of digital payments in India continues to evolve speedily, driven by technological advancements, changing customers preferences, and supportive government policies, promising a future where cashless transactions are increasingly becoming the norm.

FINDING AND CONCLUSION :

The growth of digital payments in India has seen extraordinary progress over the past few years, driven by a combination of factors including government initiatives, technological advancements, changing consumer behaviour, and supportive regulatory frameworks.

Key Findings:

Government Initiatives: Initiatives like Digital India, BHIM app, and UPI have significantly boosted digital payment adoption. These platforms have simplified transactions and made digital payments accessible even in rural areas.

Technological Advancements: Increasing smartphone penetration and affordable internet access have enabled a larger portion of the population to engage in digital transactions. Mobile wallets, UPI, and QR code payments have become popular due to their convenience.

Consumer Behaviour Shift: There has been a noticeable shift in consumer behaviour towards digital payments due to factors such as convenience, security, and incentives like cashback offers. This shift has been accelerated by the COVID-19 pandemic, which emphasized the importance of contactless transactions.

Regulatory Support: The Reserve Bank of India (RBI) and other regulatory bodies have implemented supportive policies to foster the growth of digital payments. Regulations focusing on security standards, interoperability, and consumer protection have increased trust in digital payment systems.

E-commerce and Business Adoption: The rise of e-commerce platforms and digital marketplaces has driven the adoption of digital payments among businesses and merchants. Digital payment solutions have become essential for online transactions, further busting the growth.

Conclusion:

The growth of digital payments in India is a testament to the country's rapid technological advancement and evolving financial ecosystem. It has not only improved financial inclusion by providing access to banking services to previously underserved populations but also contributed to the formalization of the economy by reducing cash transactions. Looking forward, continued innovation in technology, collaboration between fintech companies and traditional banks, and further regulatory support will be crucial in sustaining this growth trajectory. Digital payments are poised to become

increasingly integral to daily life in India, promising a future where cashless transactions are the norm rather than the exception.

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