

Methods of Online Payment in India

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Abstract

More and more people are opting to pay via digital methods. Having a card is now essential for everyone. Almost anything can be purchased online. Users of internet services were able to employ digital payment methods because of this. The use of internet services is desired by all individuals these days. The use of information technology (IT) in marketing and other fields has led to a rise in the popularity of online services. The study's need lies in its requirement to ascertain the reasons behind digital payment adoption and the functions served by digital payment systems. Banking authorities like the Reserve Bank of India (RBI) should issue circulars instructing clients and bank managements on how to protect themselves against cyberattacks and stop unlawful withdrawals of monies from customers' accounts. The needs of the bank's customers must always be considered first when making these kinds of directives. After a fraud or attack has occurred, it is critical to handle the matter with empathy and do all possible to keep one's customers' trust and confidence in one's bank.

Keywords: Various methods of digital payment, transactions, funds, RuPay

Introduction

Disruption ensued on November 8, 2016, when PM Narendra Modi announced demonetization. but as the saying goes, every upheaval brings chances. The digital wallet businesses snatched the chances presented by demonetization and ran with them to increase their market share in India's digital payment system. Digital payment has emerged as a viable alternative to cash for Indian customers, thanks to demonetization.

Prime Minister Narendra Modi has prioritized the adoption of cashless transactions in his government's policies after the demonetization of the 500- and 1000-rupee notes, which comprised 86% of the circulation at the time. There was a meteoric rise in the usage of electronic payment systems after demonetization. The market capitalization of digital wallet providers reached \$2.8 billion (Rs. 191 crores) in February of this year, up 271% from the previous month. Paytm, Free charge, and Mobikwik were among the private sector businesses in India that actively pushed many digital payment apps, such as BHIM, Aadhaar Payment, and UPI.

Because of app-based digital transfers, people's habits have changed, and more people are using digital payment methods.

Because of this, people in remote regions, who were previously unable to use the digital payment method, may now easily transfer funds. Due to the immense growth potential in India's digital payment business, many international investors are looking to put their money there.

A shift away from a cash economy and toward one that uses digital payment methods is being aided by a variety of factors. There are a number of factors that are making digital payment easier, for example, the proliferation of internet-enabled cellphones, the growth of the financial technology sector, the convenience of one-touch payment, and the support from the government via tax rebates and incentives and the prevalence of non-banking financial institutions. Digital payment growth in India is being fueled by all of these favorable aspects.

As digital legal tender, the digital currency issued by the Reserve Bank of India (CBDC) is about to enter its trial program. The digital rupee, as it is sometimes called, will be a secure store of value that can be bought and sold just like any other currency.

The Central Bank of India (RBI) has released CBDC, which is also known as the e₹ or digital rupee, with the goal of providing an alternative means of exchanging currency. It is similar to the banknotes that are already in circulation, with the main difference being that digital transactions using the digital rupee are anticipated to be easier and more convenient.

Cryptocurrencies, which the Reserve Bank of India (RBI) has consistently brushed off as a threat to the country's financial system stability, have an official counterpart in the digital rupee, which the RBI has approved.

The term "digital currency" refers to any type of money that can only be transacted online. In the financial systems of many countries, electronic currencies are already the norm. Contrarily, digital cash is never physically traded and remains inside a computer network. Bitcoin, stablecoins, and digital currencies issued by central banks are the three most common forms of digital money (CBDCs).

The most popular distributed ledger used by digital currencies, blockchain technology, provides the basis for cryptocurrencies. More than 21,000 different cryptocurrencies are available, according to CoinMarketCap.

As a central bank digital currency (CBDC), the Digital Rupee (e₹), eINR, or E-Rupee is issued by the Reserve Bank of India (RBI). The digital token stands in for the Indian Rupee. Launched on December 1, 2022, the Digital Rupee was first proposed in January 2017. The digital rupee is powered by blockchain technology, which is a distributed ledger.

It will be controlled by the Central Bank and have a unique identifier, much like banknotes. It is RBI that is liable. Plans are designed to be

accessible both online and offline. The Digital Rupee for Retail (e₹-R) was launched to facilitate transactions between consumers and businesses, while the Digital Rupee for Wholesale (e₹-W) was designed to facilitate payments between financial institutions. A total of ₹49,848,000,000. was spent on security printing by individuals, enterprises, banks, and the Reserve Bank of India (RBI) for physical currency. This expense will be eliminated with the introduction of the Digital Rupee.

Literature Review

George, A. Shaji et.al. (2023). The RuPay Card, a low-cost alternative to cash, has significantly impacted India's payment system. Its advantages include reduced transaction costs and improved security measures. The card has contributed to the decline of cash transactions and the rise of digital payment systems in Russia. It has improved access to financial services, particularly for those in remote regions. The card has also impacted women's financial empowerment and narrowed the gender gap in financial inclusion. The future of the RuPay Card is uncertain, with potential developments in technology such as biometric identification and compatibility with other digital payment systems. The success of the RuPay Card is hoped to inspire other nations to adopt similar payment systems to encourage financial inclusion and economic development. The article examines the RuPay Card's impact on India's financial system and its future prospects.

Trivedi, Hemant et.al. (2023). Mobile payments offer convenience and safety in various industries, including transportation, food, and retail. However, the popularity of online payment systems in India has grown significantly. To achieve widespread adoption, several obstacles must be overcome. These include a low level of digital literacy, inadequate infrastructure, English as the primary language, concerns about tax consequences, improper record-keeping, cybercrime, and online fraud, and lack of strict legislation for digital payment disputes. Despite

these challenges, digital payment adoption in India has made significant strides. More companies are accepting digital payments, and the government is supporting the trend. The future success of digital payments in India depends on enhancing user experience safety. As more people learn about their benefits and infrastructure improves, digital payments may continue to grow in popularity in India. However, overcoming these obstacles is crucial for the success of digital payments in India.

Salhan, Gagandeep Singh. (2020). An Analysis of the Elements Influencing the Spread of Mobile E-wallets and Other Digital Payment Methods. A large portion of the population now uses plastic money, such as debit and credit cards issued by various commercial banks, in an increasingly digital age. Services related to core banking, internet banking, and fast payments and mobile banking were all available payment options for the banking business, but customers still wanted something more streamlined. Hence, e-wallets, or digital wallets, filled this need. This study is designed to uncover the adoption behavior and changes in everyday transactions or payments. This study draws on a plethora of previous research on mobile e-wallets conducted over the last 20 years by a variety of experts interested in consumer payment and adoption patterns. The most important takeaway from the study papers is that e-wallets are most popular among those aged 21–35 for making recharging cell and DTH, buying cinema tickets, paying bills, and transferring money. The availability of NFC as a scan-and-pay method ensures security, is simple to use, and convenient, and does not compromise the privacy of users' information. Additionally, a large body of research indicates that digital wallet use is not significantly related to gender.

Agarwal, Abhishek. (2024). The fast adoption of digital payment methods has contributed to the dramatic shift in the Indian economy in recent years. The purpose of this piece is to provide a thorough examination of how digital payments have affected different parts of the Indian economy. At the outset, the article surveys the

state of digital payments in India, naming major participants and outlining current developments. After that, it delves into how digital payments have altered consumer habits and financial inclusion. In addition, the article delves into the pros and cons of digital payment usage in India. Lastly, the report wraps up with legislative suggestions to encourage the country's continued development and acceptance of digital payments.

Dhal, Sarat et.al. (2021). Recent legislative actions and technological advances have given rise to India's digital payment system, which may become a new success story. At the same time, the numbers point to an increase in the use of cash. We employ a one-of-a-kind survey dataset to understand how consumers' "perception," "trust," and "experience" with online frauds impact their payment behaviors, in contrast to national-level statistics that may reveal people's overall preferences. While factors like income, gender, and age do influence this choice, there is substantial evidence that people's trust in and impressions of digital payment instruments, the payments system as a whole, and the banking system have a far greater influence on people's propensity to use these methods. Depending on the nature of the transaction, our findings show that prior encounters with online fraud discourage digital payment methods to different degrees.

Digital Payment Modes in India

India accepts a wide variety of digital payment methods. Let me list them:

Online or mobile wallets: They are accessed via mobile apps and the internet. Reloadable funds may be added to the app by net-banking, debit/credit cards, or other similar methods. Following self-declaration and Know Your Customer (KYC) certification, The consumer wallet has a monthly limit of Rs.20,000, the merchant wallet of Rs.50,000, and the combined limit of Rs. 100,000.

Prepaid credit cards: The funds are already in the account of the person. You may think of it

like a gift card, however instead of utilizing bank credit, consumers just use the money that's already on the card to make purchases. Rechargeable in the same way as a cell phone, up to a certain limit. Associated with a person's bank account are debit and RuPay cards. Played in retail locations, automated teller machines, digital wallets, micro-ATMs, and online markets. The use of debit cards has recently surpassed that of credit cards in India.

From 22.75 million in 2014 to 630 million in December 2015, the number of debit cards surged significantly.

AEPS: The 12-digit unique Aadhaar identification number is used by the Aadhaar Enabled Payment System to enable bank-to-bank transactions at point-of-sale terminals. You may use the AEPS services to check your balance, withdraw or deposit funds, and even send money from one Aadhaar number to another.

USSD: "Useful Supplemental Service" notation Banking with mobile data. It allows customers to pay up to Rs. 5,000 per day using GSM-enabled mobile phones, which are connected to the merchant's bank account.

UPI: An idealized version of the United Payments Interface (UPI) would allow customers to integrate several bank accounts with a unified mobile platform from any bank that is part of the network. Integrates various banking functions, guarantees easy transmission of funds, and facilitates payments to merchants. It makes one-to-one money transactions easier.

Digital payment systems in India have seen a phenomenal surge in usage, and the country is set to see an even greater surge in this trend in the years to come, thanks to its expanding mobile and internet infrastructure. Digital payment volume increased by 55% and value by 24.2% in 2016–17, according to Ratan Watal, former finance secretary and main adviser to Niti Aayog. Reserve Bank of India (RBI) statistics show that digital payment uptake accelerated after demonetization last year but subsequently

decreased in the second half of 2017. The whole value of digital transactions fell 26.78 percent from Rs149.58 trillion in March 2017 to Rs109.58 trillion in April 2017.

The amount and value of digital transactions, such as digital wallets, interbank transfers, and debit and credit card transactions, have increased at an exponential rate. There has been a dramatic increase in the volume of at the point of sale (PoS) terminals that handle debit card transactions, which indicates that customers are increasingly choosing to use their cards rather than getting cash from ATMs. From 817 million in January 2016 to one billion in January 2017, The amount of purchases made using debit cards increased dramatically. While the number of transactions processed by ATMs has been relatively constant at 700 million, the number of transactions processed at points of sale has increased thrice from 109 million in January 2016 to 328 million in January 2017.

Rupay- An Indigenous Card Based Payment Solution

The eight years that RuPay has been around have seen it significantly alter the country's retail payment methods. Many people are familiar with RuPay since it was chosen as the payment method for the ambitious Prime Minister Narendra Modi supported the Pradhan Mantri Jan Dhan Yojana, and President Pranab Mukherjee dedicated it to the nation.

The primary goal of the business strategy prior to RuPay was to increase adoption among urban clients, which meant that bottom-line customers did not have access to card-based payments. This, however, changed with the introduction of RuPay.

As of right now, RuPay Cards are available to customers via more than 1,240 different types of banks, including PSUs, SFBs, cooperatives, and regional rural banks. Over the last eight years, RuPay has expanded its offerings to meet the needs of various demographics. There are a variety of RuPay cards available, including those

for the general public and the well-to-do, such as the Classic, Platinum, and Select variants. Attracting both mass and affluent consumers, RuPay offers a wide range of perks to its customers, such as the ability to shop at a variety of merchants, a cashback program, health and wellness benefits, access to airport lounges both at home and abroad, free insurance against accidental death and permanent total disability, and more.

Keeping up with the constantly changing environment has prompted RuPay to develop several innovative solutions, such as RuPay Contactless. With the revolutionary idea of One Card for all Payment systems, RuPay Contactless has changed the game in payments by providing offline wallet-based payment methods and service area capabilities to store merchant/operator-specific applications.

- Traveling on various metros and other forms of public transportation across the nation, as well as making purchases at retail establishments, are all made possible by this product's ability to facilitate smooth payment.
- RuPay Contactless makes it easier and safer to pay with no need for a physical connection; all you need to do is touch your card against the reader to complete the transaction. More people should switch to electronic payment methods and move away from using cash if we want a long-term plan for our payment systems to work.

Conclusion

Despite this, the Information Technology Act of 2000 grants customers, and banks power over a number of legally significant matters. Banks must provide their clients with information about the protection and integrity of financial transactions, as also suggested by the research. Customers have more faith in online banking as a result. Bank management should enhance their offerings to attract more consumers, since internet banking has become more popular and crucial for performing financial transactions.

Banks still need performance metrics to boost customer performance and cut down on inefficient clients, even if IT will have a favorable effect on performance. Financial institutions must raise public awareness of the requirement of collecting up-to-date, relevant data in order to make sound decisions. Analytical prowess and careful attention are required for the successful administration of online banking in India. If we want high-quality Internet banking that incorporates contemporary concepts, we need to employ the variables of acceptance and non-adoption correctly. The effectiveness of online banking operations requires significant effort. Indian financial institutions would do well to emulate the success of their counterparts in the America and the UK in developing reliable internet banking infrastructure.

According to the research, there are a number of areas where financial institutions may improve efficiency and delight their customers. In an effort to transition to a cashless economy, the Indian government is actively promoting demonetization. It is the goal of the present Indian government to create a "digital India," and this research may help them get closer to their goal.

The virtual platform has higher expectations from Internet banking customers. The technology has to be refined so that it mimics the genuine interface that bank customers are used to. Customers' decisions to use public and private banks' The PhD dissertation lays out the criteria that are used to evaluate online banking services. Online banking may see an uptick in use if two key aspects are made more user-friendly: speed and ease.

Therefore, there has to be a rise in non-needs awareness among bank employees. According to the study's findings on pleasure with internet banking presented in the previous chapter, it is evident that financial institutions should exert considerable effort to improve customer happiness. Banks should take heart from the

thesis's thorough examination of online banking adoption and non-adoption, which provides a cohesive framework for their outstanding performance.

With the goal of proposing an Internet banking adoption model and converting non-users into users, an extensive study on Internet banking has been conducted. Everyone in the banking industry has to work together to make online banking more enjoyable for their customers. When comparing the factors that impact the use of internet banking, public and private sector banks take different approaches.

In this dissertation, the author offers a solution that may be used to all kinds of public and private banks. The surveys included multiple-choice questions to allow non-users to articulate their diverse issues more effectively. Both current and potential users' actions in relation to online banking have been detailed in the research. It is possible to accelerate the pace of adoption of online banking by addressing the problems that now hinder customer acceptance. Without considering the determinants of non-adoption, it is impossible to have a good understanding of the elements affecting customer acceptance. The findings of this research have the potential to revolutionize the banking industry in India. Customers would be more satisfied and worry less if the proposed Internet banking adoption framework is put into operation.

The research found that this approach may help lessen the elements that customers find concerning about online banking, which would ultimately lead to higher customer satisfaction. When it comes to Internet banking, banks need to pay attention to what customers like about it and work to eliminate what they don't like about it. Customers all across the globe have embraced and made use of e-banking, the cutting edge of banking technology. While there are many benefits to using electronic banking, it is important to exercise caution due to the high potential for fraud. There is a significant responsibility on the part of bank management to

keep consumers informed about the many ways in which cybercriminals attempt to steal their money. Management at financial institutions should set up a dedicated forum to handle technological issues, such as ATMs not disbursing funds or multiple debits at point-of-sale terminals. They must be prepared to deal with instances when money has been stolen from bank accounts without the account holders' awareness, as a result of account holders' own negligence. The management of financial institutions should put more resources into their dispute resolution processes so that customers' concerns are addressed quickly and resolved to their satisfaction, within the bounds of what is allowed under the laws and regulations of the financial institution.

To safeguard banks from cyber assaults and to prevent unauthorized transfers of funds from customers' accounts, banking regulators such as RBI should create and distribute circulars with instructions to both customers and bank managements on how to prevent such attacks. In issuing such instructions, the interest of the bank's clients must always take precedence. In the aftermath of frauds or assaults, it is crucial to approach the situation with empathy and do all in one's power to maintain the faith and confidence of one's bank clients.

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