

Exploring the Digital Payments Space in India: Trends and Potential

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Abstract

India will become a digital society. In order to curb money laundering and lessen the need for cash in the economy, the Indian government established the Digital India programme. Diverse payment options are growing in popularity as India works towards its goal of becoming a cashless society. Concerns have been raised concerning the feasibility of introducing a fully digital payment system in India, a developing country where the vast majority of the population lives in rural areas and where just 6.5% of the population can read and write in English. The issues and consequences of India's digital payment system for the country's population and economy are the main topics of this study. The report tries to predict the eventual reach of the electronic payment system.

Introduction

A cashless society is one in which digital currency, such as bitcoin, is used for all monetary transactions rather than paper money. The use of electronic payment systems has become standard practise for all monetary dealings. In order to keep up with the times and compete with other emerging countries, a country has to digitise its financial system. In order to get rid of unaccounted for and black money in the country, The Digital India project was introduced in 2017 by Prime Minister Narendra Modi. The goal of India's new digital payment system is to make illegal money transfers and laundering far more difficult throughout the country. It is also crucial that the development of new methods has an effect on the established order and that the new adaptations must overcome obstacles. Online banking services from ICICI Bank have been introduced in India, and Digi Bank is also a frontrunner in the digitization of customer transactions. The SBI is a government-owned bank that has fully integrated digital banking services. SBI launched Green Channel in 2011 to promote green practises and digital infrastructure.

The older analogue systems are being gradually replaced by digital ones. Checks, withdrawals, draughts, money orders, letters of credit, traveler's checks, and other more conventional means of payment are also acceptable. There are a

variety of motivating factors driving the shift towards electronic payment systems that are based on computers and the internet. The most typical justification is that the digital payment system closes efficiency gaps and leaks present in the conventional one. The digital system, however, is still relatively new and not widely used in India. Debit and credit cards are presently the most widely used forms of electronic payment in India. Electronic fund transfers, online banking, the Unified Payments Interface (UPI), e-commerce payment systems, online banking, and the *99# USSD-based payment system are examples of alternative payment methods that have not gained widespread acceptance. Therefore, it is crucial to learn about the challenges faced by India's digital payment system.

Objectives:

1. to learn more about digital payment systems and the idea of contactless transactions.
2. to learn how the electronic payment system has changed things.
3. to learn about the advantages of contactless payments
4. we need to figure out what the pros and cons of India's online payment system are.
5. to learn about the problems with electronic payment methods

Methodology of Research

This is a conceptual research study on the Digital Payment system, hence it relies on secondary data for its approach.
.Method of electronic payment

1. **Banking card:** In order to facilitate banking transactions, the financial industry provides a number of cards. It's the best payment option since it gives customers the most protection, flexibility, and ease. Numerous card types, including Rupay, Mastercard, and Visa, provide extra safety for the customer during transactions. Consumers may use their payment cards to make purchases over the phone, in-store, or through a catalogue or website. They facilitate transactions and reduce costs for buyers and sellers alike.
2. **USSD:** *99# is a new kind of payment service that works over the USSD (Unstructured Supplementary Service Data) channel. With this service, you can do your banking on the go even if you don't have cell service. Without the need for a bank account or a mobile phone, people may send money to one another using the *99# number. The *99# service was implemented so that all residents of the country would have access to banking options. Customers of any telecom provider may call a single number and then use their phone's touchscreen to navigate menus and complete purchases. Customers can use this to do a lot of things, such check their account balance, transfer money, and get a summary of recent activity on their accounts.
3. **Adhar enabled Payment system:** With Aadhar identification, business correspondents or bank mitras of any bank are able to conduct online financial transactions at PoS (Point of Sale or Micro ATM) thanks to the AEPS bank-led concept.
4. **UPI:** With the help of the Unified Payments Interface (UPI), users may consolidate their banking needs into a single mobile app that can access all of their accounts. It's put to use for things like paying bills and transferring funds. The Indian population is seeing a surge in interest in this. It's fun and easy to use, and you won't have to keep track of the beneficiary's account number. The customer may check their account balance and pay their bill on time.

5. **Mobile Wallets:** Numerous mobile wallets exist, and most banks offer their own specialised apps for using them. The customer may carry their digital funds in their mobile wallet. A customer's debit or credit card may be stored on their mobile device and accessed with the help of a wallet app. A person's digital wallet must be connected to their account for financial transactions to take place. In India, there are several different mobile payment methods, including Paytm and Freecharge, Mobikwik, Airtel Money, Jio Money, SBI Buddy, and itz Cash, as well as Vodafone M-Pesa, ICICI Pockets, and Speed Pay.

6. **Point of sales:** The point of sale, or PoS, is the location where purchases are made. It allows Point-of-Sale (PoS) owners to accept payments from clients without the need of traditional banking services. A microscopically defined point of sale (PoS) is the physical place at which a transaction is completed, such as a cash register. But you'll also need a merchant bank account, a GPS, and access to the Internet.

7. **Internet banking:** The electronic payment method known as "internet banking," often referred to as "online banking," "e-banking," or "virtual banking," enables customers of financial institutions to conduct financial transactions through the institution's website while maintaining security thanks to the customer's login information.

8. **National Electronic Fund Transfer: (NEFT)** You may send money from any bank or branch in the country to any other bank via the National Electronic Funds Transfer system. Money may be sent online from any bank, making it convenient for enterprises of all sizes.

Anyone who is already a customer at another U.S. bank branch is welcome to open an account here. Anyone can deposit money from anywhere, whether or not they have an account, making it possible to transfer money to someone else's account. Individuals may only utilize this service to deposit up to Rs. 50000/- in foreign currency on business days, and the ceiling for such transactions is Rs.

9. **RTGS, or Real-Time Gross Settlement:** Order-by-order settlement of individual monetary transactions is what RTGS is all about. The term "Real Time" describes the instantaneous rather than delayed execution of incoming instructions. All payments are final and cannot be reversed once processed because the settling of funds occurs in the Reserve Bank of India's books. Widespread transfers are made possible using RTGS. Customers may send between 2,000,000 and UNLIMITED. When banks are open, RTGS can be used.

10. **Electronic Clearing System (ECS):** Electricity and phone bills, as well as insurance premiums, credit card payments, loan repayments, etc., may all be paid using ECS.

11. **Immediate Payment Service (IMPS):** With IMPS, you can send and receive money instantly between banks using your mobile phone, any time of day or night. Using a mobile phone, the internet, or an automated teller machine, users of the Instant Money Transfer Service (IMPS) can send and receive money instantly from any location in India. It's risk-free and cheap.

12. **Mobile banking:** Banks now provide a convenient banking service called "mobile banking," which allows consumers to conduct financial transactions from their mobile devices using specialised mobile banking software and apps. It's something that financial organisations like banks provide to their customers. There are separate mobile banking apps for Android and Windows available from each bank.

13. **Micro ATM:** One million Business Correspondents are expected to utilise Micro ATMs to provide basic financial services to their clients. Transactions made by Business Correspondents using the micro ATM are processed instantly. Withdrawals and wire transfers are facilitated more quickly.

14. **Development of India's Digital Payment Services:** The following figures demonstrate the expansion and growing demand for digital services. After 2016, when monetary discouragement has worn off, the digital system will have made significant headway.

1. Payment system activity indicator: transactions

(All Value in Billion)

Method	2012-13	2013-14	2014-15	2015-16	2016-17
RTGS	104968.65	657733.09	1035551	3453762.98	1467431.99
Retail Electronic Clearing	12856.76	8765. 51	91408.14	765324.89	193112.33
Card Payments Credit Card ATM POS etc	11159.76	988615. 87	29397.65	45614.00	38214.64
M. Wallets	44.07	81.98	205.84	887.65	1416.34
Mobile banking	664.17	1076	4040.91	87604.87	14738.54
Total	785237.2	987649.7	876604	1659139	1714914

Source RBI reports

The aforementioned table demonstrates a consistent rise in the use of electronic payment methods during a five-year period (2013–14 to 2017–18), including RTGS, electronic clearing, card payments, mobile wallets, and mobile banking.

Since May 2014, when RBI lowered the age limit to 10, minors of all ages could use mobile banking. They have access to and can exploit cellular money services. SBI and ICICI are the organisations that serve children in this way. Fixed and savings accounts may be opened by minors at SBI and ICICI using mobile banking.

Approximately 59% of India's ATMs are owned by public sector banks, while the remaining 41% are owned by private sector banks and cooperatives.

2. Development of POS, ATM, and transaction systems

Year	ATMs			POS		Total
	On-site	Off-site	Total	On-line	Off-line	
	1	2		3	4	5
2017	104761	108773	207684	3193766	0	3196756
2018	109560	98873	207613	2614874	0	2617684
2015	101766	98878	194554	1403872	0	1406512
2016	90865	91561	186580	1125987	0	1129877

Source RBI

There are now more ATMs and point-of-sale terminals than ever before. The number of automated teller machines in use in 2018 was 205184, while the number of point-of-sale terminals rose from 1.82 million in 2015 to 2.05 million. The alterations show that India is embracing paperless banking, and Indians have begun using paperless financial equipment. The total number of point-of-sale terminals also rose by

3. Utilisation of credit cards

Year	Credit Cards				
	number of unpaid cards as of the end of the month number of unpaid cards as of the	No. of Transactions (Actual)		Amount of transactions (Rs. Millions)	
		ATM	POS	ATM	POS
	1	2	3	4	5
2017	37785676	7245675	132765612	7656	456742
2016	32055679	615676	110567306	4568.5	376597.4
2015	24865670	595675	72856737	6573.37	256746.3
2014	21285671	435677	57356768	6755.7	167815.7

4. Debit card Use and Transaction

	Debit Cards				
	No. of	No. of Transactions		Amount of transactions	
	outstanding	(Actual)		(Rs. Millions)	
Year	cards as at the end of the month	ATM	POS	ATM	POS
	6	7	9	9	10
2017	906987781	758768556	333987148	2698771	987571
2016	804876123	709873571	261987191	2298761	398710.5
2015	671765187	738769002	118987077	2298798	198733.8
2014	564678913	618767057	80987846	2087698	198791.1

Source RBI

The number of transactions in 2018 is up 32% from 2015, while the number of POS devices in use is up 316% from the same time period. It's evidence that the electronic service is being put to use for actual purchases and cash withdrawals. Credit card use is also up from 2015 levels.

The usage of digital technology allows for smooth financial dealings. India has a huge and fast developing financial network, both of which are necessary for the development of a paperless banking system.

Customers seem to like mobile banking for its flexibility and availability.

Advantages of Digital Payment system:

1. A customer may quickly send money to a business using a digital payment system instead of writing a check and waiting for it to clear. Simply put, digital payment systems are more time and cost effective than their traditional counterparts.
2. Second, users don't have to make repeated trips to the bank or other financial institution since digital payment solutions are always available online.
3. **Easy Purchasing:** the convenience of not having to carry around large amounts of cash while making purchases is another advantage of the digital payment method.
4. **Use of Wallet:** To make it easier for consumers to make purchases and get discounts and cash back, the Digital Payment system incorporates digital wallets.
5. **Written record:** To make it easier for consumers to make purchases and get discounts and cash back, the Digital Payment system incorporates digital wallets.
6. **Less Risk:** Every transaction in the digital Payment system is protected by the use of an MPIN or OTP, which eliminates the possibility of fraud.

Challenges in Using Digital Payments:

1. **Computer Illiteracy:** Since only 6% of Indians are computer literate and 90% of Indians do not understand computers and the internet, they are unable to use the digital payment system.
2. **Use of ATM Card:** Even though there are many different digital payment methods available, ATM cards are still frequently utilised in India. They did not send money using an M. wallet or any other kind of digital payment.
3. **Limited availability of POS:** The Reserve Bank of India said that at the end of July 2016, banks had installed 1.44 million POS terminals, and that figure climbed by 24% in 2018. Each and every trader has to be involved.
4. **Mobile Internet Penetrations Rate:** In rural areas of India, mobile phone penetration is still low. Digital transactions need access to the internet, which is sometimes lacking in more remote locations.
5. **Risk and Security:** In India, many people are still wary about making purchases via the internet. They are still confident in the tried-and-true methods of the past. Furthermore, they are sceptical of the Security provided by the deal.
6. **Training:** The bank and its clients aren't communicating well. Although banks should frequently offer such courses to promote digitalization, they rarely do so. Training in the use of online and payment systems is essential.
7. **Public sector banks:** The majority of the financial industry is made up of public sector organisations, which only started digitising their operations in 1996. That's why it's on the rise. Banks in the private sector are farther down the path to digitization than their public sector counterparts.

Prospect:

1. One of India's best industries, finance is responsive to the country's changing priorities.
2. India's digital payment system is becoming more and more well-liked and has enormous potential. Transactions involving payment issued banks have grown in both volume and frequency dramatically.
3. The vast majority of the nation's banks have already made the switch to digital banking, and the National Payments Corporation of India (NPCI) has lobbied for an Adhar-enabled payment system to include all Indians in digital transactions.
4. It is expected that the UPI system, the best mechanism for digital transactions, would propel digital payment transactions forward.
5. Despite the demonetization of currency in 2016, debit and credit cards are still widely used for everyday purchases.
6. As mobile banking, e-commerce, and mobile payment apps become more commonplace, there will be less demand for physical money.
7. The almost threefold growth in RTGS and NEFT volumes between 2013 and 2016 is evidence of increased system utilisation.
8. Almost every Indian citizen now has a Jan dhan yojana account and an Adhar card because to the government's dedication to digital infrastructure and the ability to develop a culture of digital transactions.
9. It's a good time to promote the Digital payment system, Recent research indicates that India has more than 320 million mobile subscribers as of 2018.

Conclusion

Even though India's digital payment system is simple for customers and bank staff to use, many people in the country do not know how to use it. The broad use and development of digital payment systems in India is hampered by the general population's limited proficiency with digital technologies. Digital payment system adoption is influenced by both social and physical infrastructure constraints. Mobile banking's rising popularity in India stems from its adaptability and accessibility. Raising people's level of digital literacy is also crucial. There are also security and safety worries.

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