

ONLINE PAYMENT AND GOVERNMENT INITIATIVES IN BUSINESSES

*Brahmvesh Kumar¹, Dr. Shailesh Kumar Kaushal²
Dr. Abhishek Chowdhary³*

Innovation, new career prospects, convenience of working, and economic development are all benefits of digitalization. It improves system transparency, and the more money movement in the economy is visible, the lower the risk of tax evasion, parallel economy, and other issues. In many sectors, the Indian government has done a wonderful job of liberalizing the economy, but without a separate approach for digital, the open road in the embryonic digital sector may undercut indigenous entrepreneurship just as it is getting started. The newly approved Digital India project, which promises to make all government services available online in less than four years, has already yielded lessons with far-reaching implications. The initiative is vital for the future well-being of all Indians. The study will discover obstacles to online payment execution under digital India programme, as well as practical suggestions for making India financially literate and effectively and efficiently growing the Indian economy.

Keywords: Digital India, Online Payments, Services, and e-Government

INTRODUCTION

Demonetization is the process of removing an existing currency from the economy and replacing it with a new one. It is a wide government-led initiative aimed at combating corruption. It is also the act of refusing to accept a currency's value as official payment. It does not just comprise cash, but also precious metals. The word "demonetization" comes from the French phrase "demonetiser," which was used between 1850 and 1855. Demonetization aims to reduce inflation, fight corruption, eradicate counterfeit money, and discourage people from using cash. A growing country like India must find answers to difficulties like these in order to improve the country. With effect from Tuesday, November 8, 2016, at midnight, Shri Narendra Modi Ji has outlawed the 500 and 1000 rupee currency notes. The decision to discontinue the circulation of standard 500 and 1000 rupee notes is a definite one. The practise of replacing one sort of money with another is known as demonetization. The old money should be phased out in favour of new money. To put it another way, demonetization refers to the introduction of new notes or coins in the same currency, as well as the total replacement of old money with new money. Demonetization, in which legal money is reinstated as a form of payment, is a key item in economics. Countries demonetize their currencies for a number of

1 Research Scholar, Department of Business Administration, University of Lucknow, India., E-mail: brahmvesh.kumar@gmail.com

2 Assistant Professor, Department of Business Administration, University of Lucknow, India., E-mail: Kaushal.sk1971@gmail.com

3 Associated with Department of Commerce, University of Lucknow, India, E-mail: writetoabk21@gmail.com

reasons. Fighting inflation, combating corruption, and reducing the usage of cash in the country are just a few of the reasons.

Payment is an integral element of the mercantile process, hence electronic payment systems are an integral feature of e-commerce. The advent of e-commerce has produced new financial expectations that traditional payment mechanisms, in many cases, are unable to provide. The electronic payment system and e-commerce are closely linked since online consumers must pay for goods and services. Electronic money is a cutting-edge concept in online payment systems that combines computational simplicity with security and anonymity, making it a superior alternative to paper money. Its versatility opens the door to a host of new markets and applications. E-money has a number of distinguishing characteristics that make it a desirable online payment alternative.

Electronic money is a digital equivalent of cash stored on an electronic device or remotely at a server, according to the European Commission website. It gives the example of an electronic purse, in which users store little amounts of money on a smart card and use it to make small payments. E-money may also be stored on mobile phones and used to make online payments.

The four properties of electronic money are monetary value, interoperability, irreversibility, and security. In consumer-oriented electronic payments, e-money aims to replace cash as the primary payment method. Cash remains the most popular method of consumer payment, which may surprise some. Cash is still the most preferred means of payment for three reasons:

1. There is scepticism about the financial system.
2. Non-cash transaction clearing and settlement are inefficient, and
3. The real interest rate on bank deposits is negative.

DIGITAL ECONOMY & DIGITAL PAYMENT DIVISION (DEDPD)

On December 5, 2021, the Hon'ble Minister of Electronics and Information Technology unveiled the DigiDhan Mission Logo. India's flagship effort, Digital India, aims to turn the nation into a knowledge economy and a digitally empowered society. "Faceless, paperless, and cashless" is one of Digital India's declared aims. To bring every area of our country into the official fold of digital payment services, the Indian government has made digital payment promotion a major priority. The goal is to provide seamless digital payment solutions that are simple to use, economical, quick, and secure for all Indians.

Several initiatives to promote digital payments were announced by the Hon'ble Finance Minister in his budget speech, including a goal of 2,500 crore digital payments via the Unified Payments Interface (UPI), Unstructured Supplementary Service Data (USSD), Aadhar Pay, Immediate Payment Service (IMPS), and Debit Cards in FY 2017-18.

Encouragement of "digital transactions, including digital payments" is the responsibility of the Ministry of Electronics and Information Technology (MeitY).

With a range of partners, including banks, central ministries/departments, and states, MeitY is developing a number of strategies and ideas to encourage digital payments throughout the country.

MeitY is trying to strengthen digital payment infrastructure and promote awareness among all stakeholders via digital payment programmes to assist the government accomplish its objective of having all people digitally proficient. Citizens have a variety of alternatives when it comes to digital transactions. MeitY has established a specific 'Digidhan Mission' to create strategies and techniques in partnership with all stakeholders in order to promote and increase digital payment awareness.

MeitY has made many attempts to promote digital payments and accomplish its goals in a mission-like way. Below is a list of a few of them.

- (a) To achieve the goal declared in the Budget Address for FY 2017-18, Central Ministries with high citizen engagement points, as well as Public Sector and Private Sector Banks, were selected.
- (b) Digital payments awareness training and workshops have been done and planned by a number of ministries, including MoRTH, MoHFW, Ministry of Agriculture, MSME, Department of Post, Ministry of Power, Panchayati Raj, and Ministry of Defense.
- (c) To raise awareness and sensitization, promotional materials on digital payments, including IEC materials, are being disseminated to stakeholders.
- (d) A digital payments dashboard was created to track and monitor the status of digital transactions carried out by banks.
- (e) A framework for digital payment promotion and awareness has been provided to banks.
- (f) Retailers may participate in BHIM cash return programmes.
- (g) BHIM is a Aadhaar-based merchant incentive programmes.
- (h) BHIM is a referral incentive programmes for individuals

BHIM

Bharat Interface for Money (BHIM) is a smartphone application that uses the Unified Payments Interface to simplify and speed up financial transactions (UPI). To send and receive money, users may utilise their cellphone number, bank account number, IFSC code and Aadhaar number, or Virtual Payment Address (VPA). You may use BHIM to scan a QR code and pay with it. By clicking on Report problem in transactions, the user may review transaction history and file a complaint about forbidden transactions. For a better user experience, BHIM is accessible in eight regional languages (Hindi, Kannada, Gujarati, Oriya, Bengali, Tamil, Malayalam and Telugu). Users may also use their feature phone to make transactions by dialling *99#.

Source: Ministry of Electronics and Information Technology.

AADHAAR BHIM

On April 14th, our Hon'ble Prime Minister launched the BhimAadhaar App. This app would enable merchants to take payments without the need of a physical point-of-sale terminal. Customers may make payments using his biometric thumb imprint and Aadhaar number. The consumer does not need to use a card or an OTP to complete the transaction. Any citizen of this country may now make a digital payment without the need of cards, the internet, or a smartphone thanks to the government's BHIM Aadhaar scheme.

Source: Ministry of Electronics and Information Technology.

QR CODE FOR BHARAT

Bharat QR code is a Visa and MasterCard-accepting cross-platform payment method. Use Amex and RuPay cards, as well as BHIM-UPI, for higher acceptance. Because the Bharat QR code does not need an initial investment in a Point of Sale (PoS) system, it will enable the nation's digital payment acceptance infrastructure to be quickly implemented.

The Bharat QR code-based payment system was created with the following features in mind to allow for rapid adoption:

- There is no charge for using the Bharat QR code.
- The Bharat QR code is a single unified QR code that accepts Visa, MasterCard, and RuPay cards, allowing for greater adoption.
- Customers may make payments using the Bharat QR code instead than carrying a real debit or credit card.
- Data theft and security threats are minimised as a result of tampered or cyber-compromised point-of-sale devices.
- The Bharat QR code provides for dynamic QR codes to be printed on electricity, gas, and other utility bills in order to pay the correct suppliers.
- Merchants that accept Bharat QR code payments get monies in their bank accounts immediately.

Source: Ministry of Electronics and Information Technology.

IMPS

The Immediate Payment service allows users to transfer money 24 hours a day, seven days a week using their cellphone number, Aadhaar number, bank account number, and IFSC code. Internet banking, mobile banking, and ATMs are all options for using the IMPS service.

Payment may be made in the following ways:

- Using an MMID and a mobile phone number (P2P)

- Using the account number and the IFS Code (P2A) (ABRS)
- Utilizing the Aadhaar number (ABRS)

Using a mobile phone number with an MMID (P2P)

IMPS is a 24-hour real-time interbank electronic money transfer service that can handle person-to-person, account-to-account, and merchant-to-merchant remittances through mobile, internet, and ATM transactions. It's a multichannel, multidimensional platform that allows payments to be made in a fraction of a second while satisfying all security and integrity requirements for even high-value transactions.

Employing both the account number and the IFS Code (P2A)

To transmit funds using IMPS Person-to-Person (P2P) money transfer, the Remitter client must use the Beneficiary Mobile Number and MMID. Both the Remitter and the Beneficiary must register their mobile phone with their respective bank account and get an MMID in order to send or receive payments using IMPS.

UTILIZING THE AADHAAR NUMBER (ABRS)

A remitter may use the beneficiary's AADHAAR number, which serves as a financial address and is connected to the beneficiary's account number, to perform an IMPS transaction in ABRS. By requiring just the beneficiary's AADHAAR number to initiate an IMPS transaction, the ABRS service speeds the IMPS payment initiation procedure. The government employs electronic benefit transfers (EBT) and direct benefit transfers to disperse subsidy payments, therefore this service will be beneficial there as well (DBT). Increased financial inclusion will be catalysed by ABRS.

Source: Ministry of Electronics and Information Technology

CARDS

The government has distributed RuPay debit cards to allow all users to make digital payments. Customers with PMJDY accounts have received RuPay debit cards, which may be used at POS terminals or to conduct e-commerce purchases online.

Source: Ministry of Electronics and Information Technology

DEBIT CARD/CREDIT CARD/CASH CARD/TRAVEL CARD/OTHER BANKING CARDS



Banking cards provide consumers with more security, convenience, and control than any other payment method. You have a lot of alternatives since there are so many different types of cards available, including credit, debit, and prepaid cards. These cards provide two-factor authentication in the form of a secure PIN and a one-time password for secure payments (OTP). Only a few of the card payment choices are accessible, including RuPay, Visa, and MasterCard. Payment cards may be used to make purchases in shops, online, over the phone, and via mail-order catalogues.

Customers and companies save time and money, resulting in more convenient transactions.

When you establish a new account, you'll need to give KYC (Know Your Customer) information in order to obtain it.

- Get a card that lets you use your debit or credit card.
- Obtain a PIN (Personal Identification Number)
- Getting the Service Started:
- Go to an ATM to activate your PIN.
- It might take anywhere from three to seven days.

You'll need the following items to complete the transaction:

- A point-of-sale (POS) terminal or a payment gateway via the internet
- Physically present the card or submit the card details for online transactions.
- Enter your personal identification number (PIN).
- Enter the OTP (One Time Password) acquired on your registered mobile phone to complete an online transaction on the merchant's website.
- Self-service and/or help modes

The Transaction's Price:

- The customer obtains nothing from merchant transactions.
- Annual fees and ATM transaction limits are imposed at the institutions' discretion.
- Merchants pay between 0.50 and 2.25 percent.
- When paying with a credit card, the user is charged a cash-out fee that ranges from 1% to 3.50% of the transaction amount.

The transaction costs are estimates based on available information, and they may vary across institutions.

Services Offered:

- POS terminals, ATMs, micro ATMs, businesses, wallets, online transactions, and e-commerce websites accept these cards.
- International credit cards are accepted in a variety of currencies all across the world.

Transfers of Funds: There is a limit on the amount of money that may be sent.

- Depending on the card being used, the user may set a transaction limit.
- Credit scores are used to determine eligibility.

Disclaimer: Money transfer limits are estimates based on available data and may vary per bank.

This service is provided by a number of companies:

- There are 751 financial institutions (Source: NPCI)
- Interoperable

Source: Cashless India

USSD

The *99# service, which employs the Unstructured Supplementary Service Data (USSD) channel, is one of the government's unique payment services. This service was developed in response to the promise of mobile banking as well as the need for low-value remittances to help the underbanked get access to conventional banking services. Shri Narendra Modi, India's Honourable Prime Minister, dedicated the *99# service to the nation.

The *99# service was created to deliver financial services to the general public throughout the country. Customers may utilise this service by dialling *99# on their phone, which is a "Common number across all Telecom Service Providers (TSPs)" and transacting via an interactive menu shown on their phone screen.

Some of the primary services offered by the *99# service include:

- Transferring money from one account to another
- Conduct a fair investigation
- There's a little statement in addition to a deluge of other services.

The *99# service is currently accessible in 12 languages, including Hindi and English, from almost all major banks and GSM service providers. The *99# service is a one-of-a-kind interoperable direct-to-consumer service that links diverse ecosystem players including banks and TSPs.

It is a common technology platform that allows banks and third-party service providers to easily communicate in order to offer financial services to the general public through mobile phones.

Ministry of Electronics and Information Technology (MEIT) is the source of this information.

Data in an Unstructured Format for Supplementary Services (USSD)

The unique payment service *99# runs on the Unstructured Supplementary Service Data (USSD) channel. USSD-based mobile banking allows you to execute mobile banking transactions utilising a basic feature phone without the requirement for a mobile internet connection. Its purpose is to provide financial depth and mainstream banking services to the underbanked.

The *99# service was created to deliver financial services to the general public throughout the country. Customers may utilise this service by dialling *99# on their phone, which is a “Common number across all Telecom Service Providers (TSPs)” and transacting via an interactive menu shown on their phone screen. Financial transfers between bank accounts, balance enquiries, and mini statements are just a few of the services provided by the *99# service. The *99# service, which is accessible in 12 languages including Hindi and English, is provided by 51 notable banks and all GSM service providers as of November 30, 2016. (Source: NPCI). The *99# service is a one-of-a-kind interoperable direct-to-consumer service that connects a diverse ecosystem of ecosystem partners, such as banks and TSPs (Telecom Service Providers).

What to do in order to get it:

- Provide KYC (Know Your Customer) information to establish a new account.
- Your bank account should be linked to your phone number.
- Sign up for USSD/Mobile Banking.
- Obtain the MMID number (Mobile Money Identifier)
- Obtain an MPIN number (Mobile PIN)

Getting the Service Started:

- None
- Duration: 1-2 minutes

You'll need the following items to complete the transaction:

- Don't forget about MMID.
- Don't forget about MPIN.
- On your phone's dial pad, dial *99#.
- Re

Source: Cashless India

DIGITAL PAYMENTS CYBER SECURITY

- CAID-2016-0071 CERT-In Advisory for Secure Mobile Banking
- CAID-2016-0070 CERT-In Advisory for Secure Mobile Banking
- CAID-2016-0069 CERT-In Advisory for Protecting Smart Phones from Cyber Attacks
- For payments of less than Rs. 2,000/-, the RBI has made 2-step card validation easier.

Ministry of Electronics and Information Technology (MEITY) <https://www.meity.gov.in/cyber-security-digital-payments> Retrieved on December 22, 2021

Banks with a Shared Action Plan for Digital Payments Promotion*Banks that have Shared Action Plan for Promotion of Digital Payments*

S. No	Bank
1	RBL BANK LTD
2	KOTAK MAHINDRA BANK
3	ALLAHABAD BANK
4	ICICI BANK
5	PUNJAB NATIONAL BANK
6	HDFC BANK LTD
7	BANDHAN BANK LTD
8	IDBI BANK
9	AIRTEL PAYMENTS BANK
10	INDIAN POST PAYMENTS BANK
11	UNITED BANK OF INDIA
12	BANK OF MAHARASHTRA
13	ORIENTAL BANK OF COMMERCE
14	DENA BANK
15	AXIS BANK
16	INDIAN OVERSEAS BANK
17	STATE BANK OF INDIA
18	BANK OF BARODA

19	UNION BANK OF INDIA
20	CENTRAL BANK OF INDIA
21	CORPORATION BANK
22	INDIAN BANK
23	VIJAYA BANK
24	YES BANK
25	INDUSIND BANK LTD
26	SOUTH INDIAN BANK LTD
27	PUNJAB AND SIND BANK
28	LAKSHMI BILAS BANK LTD
29	PAYTM PAYMENTS BANK
30	CANARA BANK

Source: MeitY

MINISTRIES PROMOTING DIGITAL PAYMENTS

List of Union Ministries and Departments	
S. No.	Ministry/Departments
1.	Ministry of Road Transport and Highways
2.	Ministry of Communications
3.	Ministry of Railways
4.	Ministry of Petroleum and Natural Gas
5.	Ministry of Human Resource Development
6.	Ministry of Power
7.	Ministry of Agriculture
8.	Dept. of Posts
9.	Ministry of Health and Family Welfare
10.	Ministry of Consumer Affairs, Food & Public Distribution
11.	Ministry of Rural Development
12.	Department of Animal Husbandry
13.	Department of Fertilizers

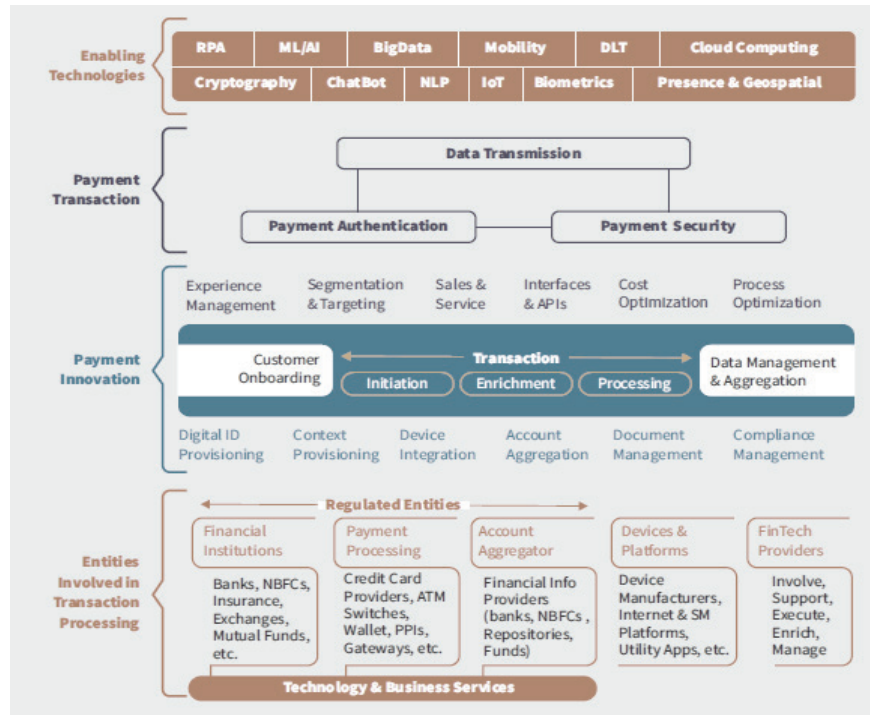
14.	Ministry of Culture
15.	Ministry of Urban Development
16.	Ministry of Home Affairs
17.	Ministry of Tourism
18.	Ministry of Labour
19.	Ministry of Panchayati Raj
20.	Ministry of Drinking water & Sanitation
21.	Department of Defence
22.	Ministry of Civil Aviation
23.	Ministry of MSME
24.	Department of Heavy Industries
25.	Department for Financial Services (non-banks)
26.	Ministry of Women & Child Development
27.	Ministry of Environment, Forest & Climate Change
28.	Department of Ex-Serviceman welfare
29.	Ministry of External Affairs
30.	Ministry Skill Development & Entrepreneurship
31.	Ministry of Steel
32.	Ministry of Youth Affairs and Sports
33.	Ministry of Home Affairs
34.	Ministry of Urban Development
35.	Ministry of Electronics and Information Technology

Source: Ministry of Electronics & Information Technology

AN ECOSYSTEM OF DIGITAL PAYMENTS

Before transitioning to contactless payments, the country's digital payment ecosystem would need to be assessed. In the figure below, the ecosystem is shown. It represents the many entities involved in the evolution, highlights areas where innovation is being pushed, and details the enabling technologies that enable it.

Figure 1: The Ecosystem of Digital Payments



Source: March 2021 DSCI-Mastercard Study Report

Financial institutions have always played a key role in digital payments and will continue to do so in the future. As a consequence, credit card companies, ATMs, wallets, and prepaid payment devices became essential components of the payment ecosystem. The Reserve Bank of India (RBI) has granted account aggregators permission to operate, primarily as financial data suppliers. Changes in technology, notably in mobility, digital devices, and social media, have opened up new possibilities for a new set of players. They appeared as a viable tool for contacting big groups of people. Their innovation, on both the hardware and software levels, has the potential to expand the payment ecosystem while also addressing challenges like simplicity of use, speed, and security. Because of favourable legislation and circumstances, FinTechs are getting increasingly engaged in transaction processing. Technology and business service providers will continue to support this transition with their technologies and capabilities.

With the decoupling of transaction processing, new avenues for innovation opened up at every stage of the transaction's life cycle. From registering clients, commencing transactions, delivering richer insights and information, and allowing transaction execution to acquire and manage data obtained, technology providers, platforms, and Fintechs are adding significant value across the board. The graphic above shows how innovative thinking has enhanced the customer experience, boosted efficiency, and created new possibilities.

Mobility, IoT, data science, AI/ML, NLP, biometrics, cryptography, and cloud computing are among the technologies that have allowed this transition. The environment is improving for businesses who have these talents and can manage payment difficulties and participate in the transaction processing ecosystem.

CONCLUSION

Digitalization brings advantages such as innovation, ease of working, new job opportunities, and economic growth. It helps to increase system transparency, and the more apparent money flow in the economy is, the smaller the chance of tax evasion, parallel economy, and other concerns. Despite these benefits, customers must still have a basic financial knowledge, and there is a push to emphasise the need of financial literacy.

In this digital era, it is vital to satisfy the rising ambitions and requirements of tech-savvy individuals, particularly millennials. After making significant success with the Digital India programme, it is now time for the government to change gears and focus on full digitization. By improving social and financial inclusion, citizen participation, governance and service delivery efficiency and accountability, Digital India's success will be a crucial contributor in promoting the country's economic development.

The focus must be on bridging the gap between individuals and creating connections via efficient tailoring of services. The government must make a determined effort to embrace technology and revamp its service delivery methods. Furthermore, the government's competences and institutional capacities must be strengthened in order to maximise the return on ICT investments. As a consequence, we may infer that new technology must be effectively used, which necessitates not only its availability but also knowledge of how to use it and reap its benefits.

While many investors were originally thrilled about Digital India's launch, many have now abandoned the project, seeing India as nothing more than a digital colony for global digital behemoths like Amazon and Alibaba. As a consequence, some of India's most notable digital success stories are at risk. They will undoubtedly be unable to compete with global financial statements. Hackers will be attracted to a cashless India, and if we rush to implement digital monetary transactions without adequate firewalls, our foes may be able to bring our economy to its knees. If this happens, Indians would lose their money and faith in the digital economy. The Indian government has taken steps in this direction by mandating banks and financial organisations to immediately report security vulnerabilities. On the other side, the blame game will commence. Let us have a real conversation and establish a plan of action before we are assaulted.

RECOMMENDATIONS

1. For the government's plans to be successful, people must be involved in the change. Schools and universities may help build public awareness about the events and disseminate information to their communities.
2. They must also be familiar with the programme and how to make the most use

of government resources.

3. Community centres may be developed where individuals who are more educated about the issues may help others, and specialists may attend to offer advise on a regular basis.
4. Businesses may assist their employees in learning about money and being financially literate.
5. The RBI and SEBI have already taken a number of steps to enhance public awareness about the need of financial literacy, including offering online financial literacy lessons via their respective websites.
6. People should be educated about the factors that impact their savings as well as how to maximise their savings.
7. People should be educated about the protection of their personal information and online frauds when it comes to their accounts.
8. Before people accept technological developments, they must have faith in the financial system, which must be improved.

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