

## ADOPTING DIGITAL CURRENCY IN INDIA: ISSUES AND CHALLENGES

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### ABSTRACT

*Central Bank Digital Currency (CBDC) is a digital form of money that is issued by a central bank. The key motivations for issuing CBDC vary from country to country, but some of the benefits may include making transactions faster and easier, and reducing the need for physical currency. This paper explains the benefits and risks of issuing a digital currency, called e₹ (digital Rupee), in India. The e₹ (digital Rupee) will provide an additional option to the currently available forms of money. It is substantially not different from regular banknotes, but being digital it is likely to be faster, easier and cheaper to use. It also has all the benefits of other forms of digital money. This note is about the planned features of the digital Rupee, which is a new type of currency that will be used by the Reserve Bank. The Reserve Bank is trying to create a digital Rupee that is as close to a paper currency as possible, while also managing the process of introducing it in a seamless way. Some key considerations include choosing the right technology and design, deciding on possible uses for the digital Rupee, and issuing it in a way that is safe and secure. Additionally, the note discusses the implications of introducing a CBDC on the banking system, monetary policy, and the financial stability of the country.*

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**Keywords:** CBDC, Banking System, Monetary Policy, Financial Stability, Digital currencies.

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### Introduction

The history of currency/money is long and spans many centuries. Starting with the launch of the first metal coins, paper money followed later. Digital currencies have both positive and negative effects on how society functions. Back in the earlier days, coins were made with different precious metals like gold, silver, copper and bronze. This allowed people to pay for goods and services with ease, instead of having to weigh them. The Reserve Bank of India (RBI) has a legal power to manage the currency in the country. This is one of the core functions of the RBI, and it is driven by Section 22 of the RBI Act, 1934. This responsibility falls to the RBI together with the government. The RBI is also responsible for ensuring an adequate supply of currency and for overall control and management of currency in the nation. The RBI is responsible for controlling the money in India. There are two types of currency in use here - coins and paper money. Paper money is a kind of debt that represents what you owe to someone. Coins are metal coins that are used as a form of currency. They are legal tender, which means that you can use them to buy things.

Some other forms of payment, like checks and bank drafts, are also used as a way to exchange money on the internet. But, paper currency is the best way to exchange money because it is accepted by the public. Electronic transactions need good internet connectivity, and for electronic fund transfers, you need to have a bank account linked to your application. Digital currency is a type of money that is not physical. It is stored on computers or other electronic devices. This way, there are no safety problems, and it is less likely to be damaged or stolen. Storage problems also don't exist with digital currency, because it is easily accessible. And because it is digital, it can be used to pay for goods and services online. The Finance Minister, Ms. Nirmala Sitharaman, plans to introduce digital currency in the next financial year. This will help to boost the digital economy and make currency management more efficient. "Digital currency will also lead to a more efficient and cheaper currency management system. It is therefore proposed to introduce digital rupee using blockchain and other technologies to be issued by Reserve Bank of India starting 2022-23," Ms. Nirmala Sitharaman said.

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### Objectives of the Study

- To analyse the need of Digital Currency in India.
- To analyse the impact of Digital Currency on the payment process.
- To analyse the impact of launching Digital Currency on the Government expenditures on printing of paper notes.

### Need of Study

The study will show that using digital currency will reduce the government's expenditure on printing of paper currency, encourage the Going-Green concept in India by adopting digital currency instead of paper currency, and promote the use of digital and electronic payment systems in India. In 2016, the Indian government decided to demonetize currency, which changed the way people do business in India. At first, this was a difficult decision because most of India's transactions are done in cash. However, people quickly began using digital payment methods like Paytm and BHIM UPI. This is because the increase in smart phone ownership and the availability of easy-to-use payment methods helped make the transition to digital payments easier.

### Hypothesis

**H1:** Digital currency will solve the problems of paper notes.

**H2:** Digital currency is a safe and secure payment system.

### Methodology

This research was conducted using both primary and secondary data. Primary data was collected from people who are directly involved in the retail industry (consumers, suppliers, whole sellers, and bank personnel). Secondary data was collected from journals, books, websites of the Reserve Bank of India (RBI), and other related websites.

### What is Digital Rupee?

A digital currency is a type of currency that is digitally based. This means that it is stored on a computer or other electronic device. Digital currency or rupee can be used in contactless transactions. The Finance Minister, Nirmala Sitharaman, announced in the Union Budget that the Reserve Bank of India will soon be rolling out a digital currency.

### Types of CBDC

- Wholesale (CBDC-W) is designed for restricted access to select financial institutions.
- Retail (CBDC-R): Retail CBDC would be potentially available for use by all.

### Key Features of Retail Digital Rupee

- Users will be able to transact with e₹-R through a digital wallet offered by the participating banks and stored on mobile phones / devices.
- Transactions can be both Person to Person (P2P) and Person to Merchant (P2M).
- Payments to merchants can be made using QR codes displayed at merchant locations.
- The e₹-R would offer features of physical cash like trust, safety and settlement finality.
- Must be accepted as a medium of payment, legal tender, and a safe store of value by all citizens, enterprises, and government agencies.
- Digital Rupee will help get rid of the problem of fake currency.
- Freely convertible against commercial bank money and cash
- The cost of printing paper notes will be saved.
- It appears as a liability on the central bank's balance sheet
- CBDC cannot be damaged.

### Difference between Digital Rupee and Cryptocurrency

CBDCs are digital versions of government-backed, fiat money. They use blockchain technology to verify and store transaction data. But the major difference is that CBDCs operate on a centralised network, which is a permissioned network. This means that the transactions won't have to pass through multiple banks, like the UPI. CBDCs, or digital currencies, are a new way to transfer money that is faster and easier than traditional methods like UPI or a wallet. They're currently being explored by many different countries around the world, and some have even launched their own CBDCs. The CBDC in the Bahamas was the very first of its kind, and it was launched in 2019.

Cryptocurrencies, like Bitcoin and Dogecoin, are stored on a decentralised network. This means that transactions can happen, authenticated, and recorded in the public ledger without any third-party interference. Cryptocurrencies use the blockchain technology, which is a type of decentralised system. However, CBDCs, which are government-backed forms of money, are also based on the blockchain technology. This makes them safe forms of money because they are not subject to the same risks as regular currency.

### Launching of Digital Currency in India

The Reserve Bank of India has released a concept note about a digital currency called CBDC. It is still in development, but this new form of currency could change the way we do banking. Union Minister of State for Finance Shri Pankaj Chaudhary has said that the CBDC pilot launched by the RBI in the retail sector uses components based on blockchain technology.

The CBDC is a new payment system that is being tested in both the retail and wholesale markets. The retail market pilot, known as the Digital Rupee -Retail (e₹-R), was launched on December 01, 2022, within a closed user group (CUG) comprising participating customers and merchants. The wholesale market pilot, known as the Digital Rupee -Wholesale (e₹-W), was launched on November 1, 2022, with use case being limited to the settlement of secondary market transactions in government securities. By using (e₹-W), we hope to make the inter-bank market more efficient. This will reduce the costs of transactions, since settlement will happen in central bank money instead of requiring settlement guarantees or collateral.

The Minister said that the RBI has identified eight banks to participate in the retail pilot project. The first phase of the project will involve the State Bank of India, the ICICI Bank, the Yes Bank, and the IDFC First Bank. Then, four more banks will join the project, including the Bank of Baroda, the Union Bank of India, the HDFC Bank, and the Kotak Mahindra Bank.

The Minister said that the RBI has already done a pilot for the digital currency, called the e-RBI, which started on December 1, 2022. The e-RBI is a digital token that represents legal tender. This is a note that is just like the paper money and coins that you might use in your wallet. It is being distributed through financial intermediaries, such as banks. Users can use the e-RBI to make transactions with other people, businesses, and even across borders. The e-RBI offers some of the features of physical cash like trust, safety, and settlement finality. It doesn't earn any interest and can be converted to other forms of money, like deposits with banks. The Minister also said that RBI is continuing to work on full operationalization of the CBDC, including expanding the scope of the pilots gradually to include more banks, users, and locations based on feedback received during the pilots.

### Cost of Printing Notes in India

**Table 1: Cost of Printing Notes in India (Denomination Wise)**

Year: 2021-22

Note (Rs.)	Rs. Per Thousand Notes
10	960
20	950
50	1,130
100	1,170
200	2,370
500	2,290
2,000	Printing Stopped

Source: RBI

**Table 2: Cost of Printing Notes in India (Annual Expenditure)**

Year	Expenditure (Rs. In Crore)
2015-16	3,421
2016-17	7,965
2017-18	4,912
2018-19	4,811
2019-20	4,377
2020-21	4,012
2021-22	4,985

Source: RBI

### Conclusion and Findings

- The Central Banks are trying to make sure that more people are using electronic money instead of paper money.
- Some countries with geographical barriers restricting the physical movement of cash had motivation to develop a Central Bank Digital Currency.
- CBDCs (central bank digital currencies) are better than other digital payments systems because they are backed by a country's currency, which means they are final and reduce settlement risk in the financial system.
- The e₹ system will make it easier and more affordable for people in India to pay for things using their phones, and it will help to boost the country's digital economy.
- In India, the cost of cash management continues to be a significant issue. From April 1, 2021 to March 31, 2022, the government spent Rs. 4,984.80 crore on security printing, which is more than the Rs. 4,012.10 crore spent in the previous year.
- In India, the use of electronic payments hasn't led to a decrease in the demand for cash, because people are still using it in large quantities. This is because cash is still useful in many situations, like when you don't have access to a bank or when you need to pay someone in a hurry.
- The Central Banks are trying to meet the public's need for digital currencies, which is why they are increasing the use of private virtual currencies. This way, they are avoiding the more damaging consequences of these private currencies.
- Reduce to use of paper and motivating going-green concept.

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