

## A Study on Impact of Digital Currency on Stakeholders

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### **Abstract**

Central Bank Digital Currency (CBDC) is a digital form of currency notes issued by a central bank. While most central banks across the globe are exploring the issuance of CBDC, the key drivers for its issuance are specific to each country's and concentrate on the exclusive requirements. In the Union Budget 2022-23, Finance Minister of India Mrs. Nirmala Sitharaman had announced about RBI rolling out a digital equivalent to the rupee in the current financial year (2022). The research paper aims to study and understand the significance of Digital Currency and its prospective impact on various stakeholders such as retail customers, corporate customers, domestic banks, international banks, fin-tech solution providers and especially central banks operations and processes. The present study is descriptive in nature and based on secondary data.

**Keywords:** Digital Currency, Digital Payments, CBDC

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### **I. Introduction**

Upholding the monetary and financial stability, promoting financial inclusion with the broad access to safe and efficient payments are the main objectives of the central bank of India i.e. RBI. Monetary and financial stability is safeguarded by virtue of the statutory obligation of currency management conferred on the Reserve Bank of India in the Preamble of the Reserve Bank of India Act, 1934, which directives the Reserve Bank of India to control the issue of bank notes and keeping of reserves. A core instrument by which Reserve Bank of India carry out their public policy objectives is by providing central bank money, which is the safest form of money to banks, businesses and the public at large.

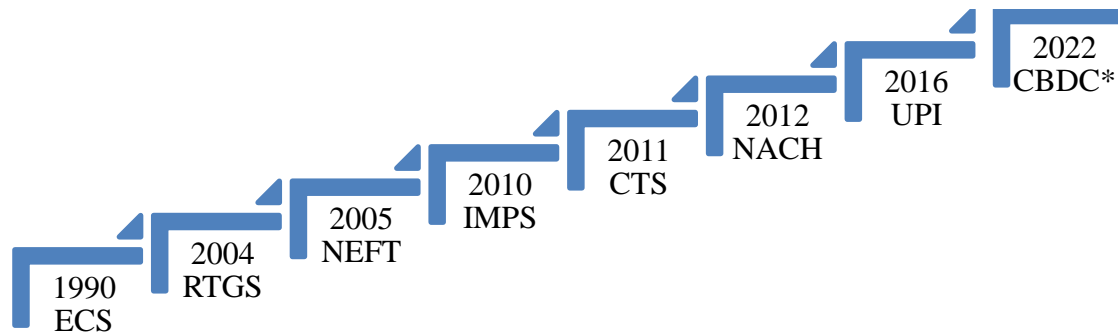


Figure 1: Development of India's Payment System

\* Announced about RBI rolling out a digital equivalent to the rupee in the financial year 2022

Payment systems are changing at an accelerating pace. Systems that offer near instant person-to-person retail payments are becoming increasingly prevailing around the world. India has continuously fostering the innovation and development in the payment and settlement systems. Since the mid-eighties the Reserve Bank of India has taken numerous initiatives to get in technology-based solutions to the banking and financial system. The developments have been indicated in the above mentioned figure 1.

In the Union Budget 2022-23, Finance Minister of India Mrs. Nirmala Sitharaman had announced about RBI rolling out a digital equivalent to the rupee in the current financial year. The Reserve Bank will soon commence limited pilot launches of e₹ for specific use cases. It is expected that this note would facilitate a deeper appreciation and understanding of digital Rupee and help members of public prepare for its use. Faced by the decreasing usage of paper currency, the central banks are now seeking to popularize a more acceptable electronic form of currency. CBDC is expected to lower the cost of issuance of money and transactions. As per the RBI, “the digital currency will be supported by the state of art payment systems of India that is reasonable, reachable, appropriate, safe and secure. It stated that the e-rupee will bolster India's digital economy, enhance financial inclusion and make the monetary and payment systems more efficient.”

The RBI has proposed to issue two versions of Digital Rupee — general purpose or retail (CBDC-R) and wholesale (CBDC-W). Retail CBDC can be used by all including the private sector, non-financial consumers, and businesses. Wholesale CBDC is designed for restricted access to select financial institutions. While retail CBDC is an electronic version of cash primarily meant for retail transactions, the wholesale CBDC is designed for the settlement of interbank transfers and related wholesale transactions.

Meaning of Digital Currency: The term ‘digital currency’ refers to “money exclusively available in digital or electronic form”. Digital currency is also known as digital or electronic money, cyber cash, or electronic currency. Digital / Electronic wallets or computers connected to the internet or specified networks conduct digital currency transactions. Digital currencies don't require intermediaries and it is frequently the most cost-effective, convenient and easy way to trade currencies. Not all digital currencies are crypto currencies, and not all crypto currencies are digital currencies. Digital currencies have the ability to decrease the transaction costs and transfer value seamlessly.

## II. Review of Literature

(RBI, 2022) explained the objectives, choices, benefits and risks of issuing a CBDC in India, referred to as e₹ (digital Rupee) in the concept note on CBDC. The e₹ will provide an additional opportunity to the presently available forms of money. It is substantially not different from banknotes, but being digital it is likely to be cheaper, faster and easier. It also

has all the transactional benefits of other forms of digital money. The Concept Note has created an awareness about CBDCs in general and the planned features of the digital Rupee, in particular. The Concept Note also discussed key areas such as technology and design choices, possible uses of digital rupee, issuance mechanisms etc. It also examined the implications of introduction of CBDC on the banking system, monetary policy, financial stability, and analyses privacy issues.

(Kumar & Pankaj, 2021) discussed the effects of demonetization in India. Author has also presented the various facts and figures related to demonetization. They highlighted the policy direction of government towards tremendous growth in digital payment transactions and digital payment solutions.

(Handa, 2020) authored highlighted need of resilient and forward looking approach in payment mechanism which supports the economy. The author also pointed out the technological advancements, development and significance of digital economy. The paper focuses on various aspects of digital currency considering the future need to economy and financial system.

### **III. Objectives of the Study**

The objectives of present study are as follows:

1. To study and understand the significance of digital currency.
2. To discuss the impact on various regulators, banks, financial institutions and fin-tech solution providers in the issuance of digital currency.

### **IV. Research Methodology**

The present study is based on secondary data. In the present study researchers have analyzed and discussed the significance of digital currency and its impact on retail customer, corporate customer, domestic banks and international banks. The data is collected from RBI reports and monthly bulletin, various news articles and websites of banks and financial institutions and fin-tech solution providers. The present study is descriptive in nature.

### **V. Discussions and Analysis**

In the present study researchers have discussed the significance of digital currency and impact of digital currency on monetary system.

Significance of Digital Currency: A *Safer form of money* is the main significance of digital currency. The RBI will be the custodian of everyone's cash and the clearer of all transactions. No need for conversion of paper money into digital money required. As CBDC unit is a direct central bank liability that is precisely equivalent to paper money rather than merely convertible into it, resulting that rendering *paper cash obsolete*. Money users will no longer require cash outlets and will have fewer options for depositing cash and other valuables. With the help of technology, all transactions can ideally be monitored using data analytics and artificial intelligence to quickly recognize banks that are failing or participating in questionable transactions. The systems enabled for authorities to recognize the parties to a transaction in a CBDC environment. In this process digital bank codes are visible to the clearing institution, which basically shortens the detection of criminal activity and eradicates black markets that deal mainly in physical money. From the RBI and other regulators, it will be *easy for implementing and regulating the policy*. The another important significant is in the form of *increased diversity*. Bank account is not required for CBDC transactions, which is crucial in developing nations. In India, with an Aadhar number and a smartphone, an unbanked Indian customer can easily have transactions using a mobile app. It will be resulting in financial inclusion as large extent. *Cost of currency management* is another

significant area. The cost reductions from a digital currency might be significant, given that larger denomination currencies are being phased out from the market and people start shifting to digital currency instead of paper-based currency. In global environment, CBDCs could help payment systems become more *cost-effective and real-time*. Currency settlements would no longer be affected by different time zone.

A Step towards a Cashless Economy and Financial Inclusion: RBI believes that the digital rupee system will "strengthen India's digital economy, improve financial inclusion, and make the monetary and payment systems more efficient." "CBDC is aimed to complement, rather than replace, current forms of money and is envisaged to provide an additional payment possibility to users, not to replace the existing payment systems". In the real world, the digital rupee can be used for programmable payments for subsidies and by financial institutions for faster lending and payments. There can be a pragmatic shift to a cashless economy in the near future. This might encourage the government's push for cashless payments and positively impact the banking sector. Cross-border remittances can be improved with the growth of digital rupee. An environment for interoperability may be built, and lead to a cashless economy.

Impact of CBDC on the monetary system and stakeholders: Digitalization of the economy is changing payments and settlement system. The use of cash is continuously falling in many jurisdictions and the pandemic has accelerated this significantly. With more than 6,000 cryptocurrencies across the globe, and one in ten people invested in them, demand for digital currencies has become spreading all over and difficult for central banks to ignore. These CBDCs have far more in common with cash than most major crypto currencies and represent a natural digital evolution of traditional monetary systems. In comparison to other speculative crypto currencies and tokens, the CBDCs are created and offered directly by central banks and are typically backed in similar ways to cash; whether that's by gold or by reserves, thereby creating the trust and ensuring consumer protection.

CBDCs provide *retail customers* with convenient digital payment possibilities without revealing them to the volatility of crypto currencies. It is designed in such way as a medium for spending, which have the capacity to make payments inexpensive, faster, secured, safe and frictionless, providing some of the dependencies in the current payment network and systems.

Retail customers, who have already experienced real time payments and those concerned about data privacy, will remain one of the hardest groups to convince of CBDCs' value. Also, the needs of non-tech-savvy consumers should be carefully considered as adoption may provide particularly challenging for them - leading to greater tech inequality across society.

Following are the influential areas on retail customers:

- New form of trusted digital currency
- Faster and cheaper payments
- Higher digital transformation
- Movement towards a cashless society
- Convertibility issues may arise in case of non-acceptance by merchants
- Technology adoption may be issue in case of not addressing need of digital non-tech customers
- Charges and fees may create impact

In addition to *retail customers*, *corporate customers* are more excited as CBDC's may reduce the cost of transaction, saves a time and eliminate the settlement risk involved in global payments transaction. Corporate customers will have to direct a period of transition, evolution and confusion at some levels of the business as they adapt to transacting with CBDCs.

Following are the influential points for corporate customers:

- Innovative ways to participate in international currency markets
- Reduced settlement risk with the help of block chain and smart contract technology
- Encourage global trade in settlement risk get reduced
- Automatic compliance in case of the settlement issues with the various regulators
- Attracting the funds through different avenues
- Impacted on foreign exchange transactions in short period

The another important stakeholder is *banks and financial institutions*. Domestic banks role as deposit taker may diluted, when the central bank issues a digital currency. The growth of CBDCs presents a challenge to current domestic banking operations models.

Following are the influential points for domestic banks:

- Reduced role as an intermediary and deposit taking financial institution
- Impact on the ability to provide a credit to customers
- Over reliance on the wholesale money could cause the significance issues for financial system

CBDCs have the prospective to entirely change the role of *international banks*, specifically in case of international and cross currency trade. International banks required to step up and re-invent their role in a CBDC driven economy.

- Change in role as an intermediary, facilitates international CBDC transfers
- Opportunities for international banks to tie-up with fin-tech companies
- Existing trade settlements may be impacted and new standards may be emerged for international trade
- Attract investment in fin-tech solution providers

In this transition *fin-techs solution providers* also influence the transactions as, CBDCs are creating new opportunities to innovate at all levels. From building comprehensible transaction services for users to helping build a scalable and stable foundation for cross-currency transactions, the shift toward cashless digital finance represents the biggest opportunity fin-techs solution providers have seen to date.

- Need huge investment in fin-tech companies
- Provide superior, user friendly and customized solutions to the end-users
- Decentralized finance may provide opportunity to create new offerings in an environment.
- Ecosystems integrators will be required to provide liquidity

For central banks, CBDCs represent a huge shift in processes. They can considerably decrease the costs of printing, transporting and managing cash, freeing up resources to meet the new challenges of CBDC management. And they can fight fraud automatically, thanks to policies embedded within currency and transaction code.

- Cost savings in terms of printing and transporting
- Easier in KYC processes
- Attract new investments to support domestic and international banks
- Create competition in providing the services
- Awareness and adoption of processes and systems across the financial system and society
- Improvements in policy and regulations standards
- Required intellectual technical support

## VI. Conclusion

The researchers have concluded that digital form of currency notes will provide new standards to the financial and monetary system. The significant effects will create the new

market space and fulfill the specific needs and requirements of users with affordable, convenient, accessible and inclusive way. The researchers have also analyzed and discussed the effects on various stakeholders and concluded that positive and advanced outcome will be possible with the digital currency. The Reserve Bank will soon commence limited pilot launches of e₹ for specific use cases. It is expected that this note would facilitate a deeper appreciation and understanding of digital Rupee and help members of public prepare for its use.

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