

CENTRAL BANK DIGITAL CURRENCY IMPLICATION IN RETAIL SECTOR IN INDIAN SCENARIO

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Abstract

Digitalisation in current decade is moving very fast in developed and developing countries. In this era, International attention in the potential issuance of Central Bank Digital Currency (CBDC) has recently increased that may be seen as a digital version of currency. In addition to the current type of currency, the CBDC offers another choice. It is essentially identical to banknotes, but because it is digital, it is probably simpler, faster, and less expensive. It also offers all the advantages for transactions that other digital payment systems do. In order to help researchers, policy makers, and practitioners take a closer look at CBDC, this paper reviews recent advancements in CBDC research with the goal of providing the knowledge of this field. The research paper also explains the RBI approach regarding the CBDC. The current research study also examined CBDC consequences for the banking system, monetary policy, financial soundness, and some other privacy matters. Reserve Bank of India also starts its CBDC-digital rupee or e-rupee for the common man on December 1, 2022.

Keywords; *Digitalization, CBDC, RBI, and e-Rupee*

1. Introduction

One of the Reserve Bank's primary central banking responsibilities is managing currency, for which Section 22 of the RBI Act, 1934 grants it legal authority. The Reserve Bank of India and the Government of India are jointly in charge of planning, executing, and generally administration of the country's currency with the aim of assuring a sufficient amount of authentic and clean notes in circulation. Bank notes which are responsibility of Reserve bank of India (RBI) in a safe, convenient, and commonly accepted form of payment. But as more people have shifted to using electronic payment systems, the use of cash for transactions has been falling in India over the past few years. During the COVID-19 epidemic, this trend has accelerated as some customers and businesses have opted to avoid using cash due to virus concerns. However, despite the fact that cash is used for transactions less frequently, the amount of cash in circulation has increased, indicating a demand for holding cash for security and as a store of value. Numerous technical advancements became necessary for the nation's financial sector as a result of the steady decline in the use of currency for transactions.

India has advanced significantly in terms of development in electronic payments. India has created a distinct legislation for payment and settlement system, encouraging the country's payment ecosystem to evolve in an organised way. This dramatic change in payment preferences can be attributed to the development of trustworthy 24-hour electronic banking like RTGS, NEFT, and IMPS, which obliged real-time fund transfers. Additionally, the introduction of UPI (Unified Payment System), BBPS (Bharat Bill Payment System), Mobile Banking etc. helped India gain

recognition on a global scale. India has made significant progress in digitization due to the availability of reasonable, easy, and secure digital payment platforms 24*7*365.

The shape and purposes of currency have changed as a result of economic advancements and the growth of payment methods. The idea of money has changed over time, moving from commodities to metal money to paper money to digital money. Digital conversion of currency is the succeeding development in the historical journey of money as a result of the development of cutting-edge technology. Technology progress has enabled the creation of a new type of currency called Central Bank Digital Currencies (CBDCs).

2. OBJECTIVES OF THE STUDY:

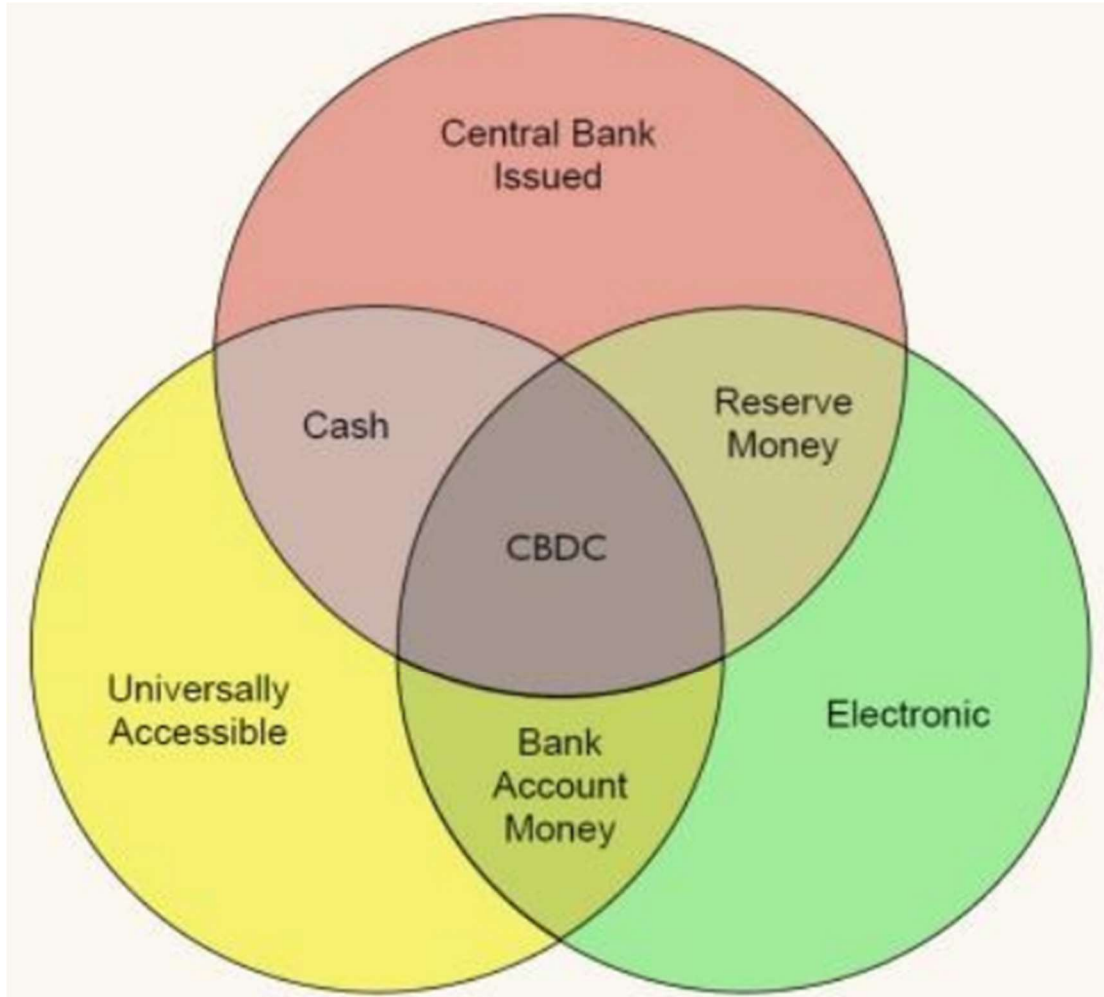
1. To understand about the Central Bank Digital Currency.
2. To analyses why there is a need of launch Central Bank Digital Currency.
3. To know the basic how RBI implemented Central Bank Digital Currency and what is advantages and risks associated with this.

3. Research Methodology

The study was carried out to successfully address the specified goals and is based on secondary data. This research is instructive. Different reports, papers, RBI websites, journals, scholarly articles, and internet portals were used as secondary data sources for this study.

4. What is the meaning of Central Bank Digital Currency or e-rupee?

The RBI has issued CBDC as legal tender in digital form. It has the exact same value as fiat money and may be exchanged for it in exact amounts. Its only distinction is in form. It isn't paper like actual money. Because it is exchangeable legal currency, holders are not required to have a bank account. CBDC will show up as a liability on the balance sheet of the RBI. The E-rupee will take the form of a digital token that denotes a demand against the central bank and will essentially serve as electronically representation of bank note that can be digitally transfer between the user. A token bearer instrument, similar to a bank note, CBDC is assumed to belong to whoever is holding it at any given time.



The framework of CBDC. (Source: Inter-ministerial panel report submitted to DEA)

4.1 Need to introduce the CBDC

Utilizing block chain technology for the e-rupee is a first step toward India having a digital economy worth \$1 trillion. Digital transactions are expanding rapidly in India. After Covid -19 pandemic digital transactions are rapidly increasing.

<i>Time Period</i>	<i>RBI Digital Payment Index</i>
<i>March -2018 (Base)</i>	<i>100</i>
<i>March-2019</i>	<i>153.47</i>
<i>September -2019</i>	<i>173.49</i>
<i>March -2020</i>	<i>207.84</i>
<i>September -2020</i>	<i>217.74</i>
<i>March -2021</i>	<i>270.59</i>
<i>September -2021</i>	<i>304.06</i>
<i>March -2022</i>	<i>349.30</i>

(Source: RBI)

The RBI-DPI has shown a considerable increase in the use of digitalization adoption and deepening of digital payments throughout the nation. Due to its simplicity of use and sovereign guarantee, the digital currency issued by the RBI will therefore offer yet another option for digital payment. The public would have easy access to digital currency through CBDC, free from liquidity and credit risks.

4.2 How is the RBI implementing the CBDC?

Mumbai, New Delhi, Bengaluru, and Bhuvneshwar would be the first four cities covered by RBI, afterwards Ahmedabad, Gangtok, Guwahati, Hyderabad, Indore, Kochi, Lucknow, Patna, and Shimla will also be included in this pilot project of RBI. The trial will run in a selected user group that consists of engaged customers and dealers, as stated by the Reserve Bank of India. Customers will get digitally printed notes with the RBI governor's endorsement from CBDC wallet. SBI, ICICI Bank, Yes Bank, and IDFC Bank will all take part in the trial project's first stage, while Bank of Baroda, Union Bank, HDFC Bank, and Kotak Mahindra Bank will take part in the project's second stage. The reach of the trial could ultimately be extended to other institutions, individuals, and places.

4.3 How we use the CBDC?

Token money will be given by intermediaries, which are banks, and E-rupee will be printed in the same denomination as paper money. The participating banks digital wallets, which are kept on mobile device and other electronic devices, will be used for transactions. P2P and P2M transactions are possible. There will be QR codes at the merchant location for P2M transactions. The same way he can withdraw money, a user can withdraw digital tokens from banks. There is not a big gap between CBDC and other wallets, UPI applications Google Pay, Phone Pay, Paytm etc. have a daily and no of transactions limit, but in CBDC transactions RBI not imposed any limit.

4.4 Advantages of CBDC

CBDCs can be used as tools to promote the government's goals for public policy by offering a reliable and secure way to make transactions. Effective, inclusive, and creative payments are encouraged if they are properly controlled and the risks involved are reduced.

The RBI also highlighted a few of the CBDC's benefits in its report on money and finance, along with the capability to monitor activities and the provision of "money printing" as a form of emergency help. Furthermore, it has been claimed that CBDCs have the authority to allocate cash for relief and concessions as well as for the purchase of particular goods and services. In addition to bringing about favourable benefits for payment systems, the RBI Deputy Governor strict attention that CBDC will protect the local society from the environment of unstable digital currencies.

Aside from that, CBDC serves as a very secure mechanism for international trade, supporting the adoption of anti-money laundering (AML) and counter-financial terrorism (CFT) protocols. High-value payments can proceed more swiftly since the DLT exists as no post reconciliation is necessary. It can be helpful for many elements of society to utilize it as a method for offline payments uses electronic credentials.

DBT-programmable payments, Transnational remittances, Consumer payments can be very fast after CBDC introduction.

4.5 sPotential Risks of CBDC

Disintermediating banks: If sufficiently significant and widespread, the move to CBDC may have an impact on the bank's ability to reinvest in loan intermediation. Another possibility is that the development of central bank balance sheets could be driven by the migration of funds to CBDCs, which raises the issue of how these funds should be returned to the economy. If its benefit to customers and enterprises is not fully recognised, limited user involvement may happen. Limited CBDC adoption can obstruct the central banks' policy agenda. A rise in the cost of network security, screening of weaknesses, and cyber security. The operating responsibility and costs of running CBDC for the central bank will also increase. Using CBDC assets had very little secrecy than using actual cash because they could be tracked and accountable. Threats to data confidentiality and password protection. Faster technological deteriorations, which would increase the expense of improvements, could threaten the CBDC environment. Operational risks for facilitators because employees must be trained up and educated for the CBDC environment.

Conclusion

In order to improve the settlement and payment process and eliminate some of CBDCs' issues, usage should be payment-focused. Then, by abstaining from serving as a store of value, it can prevent the dangers of decentralisation and its improvement tips for monetary policy. The RBI should stop collecting interest on the amounts in order to keep acting just as a settlement and payment method. BIS has taken notice of these CBDC threats. The central banks should develop an environment that includes all stakeholders to reduce them. CBDC could speed up digital transformation and promote the shift to a digital economy despite the initial challenges and risks.

Suggestion

➤ For Monetary Policy

One option to handle any potential impact on the monetary policy is to use a multiple structure for the creation and distribution of CBDC, in which there is a limit on the amount of CBDC that every individual can keep in their digital wallets. By doing this, the government might prevent current account savings accounts (CASA) from being widely converted into CBDC holdings. We could further ensure minimal transformation by eliminating any discrepancy among bank deposits and CBDC by not collecting interest on such CBDC e-wallets. From a regulatory perspective, certain laws, including maintaining nil or negative rates of interest on these digital wallets/accounts, could be made feasible for punitive measures towards those who violate the CBDC limit. The value and anonymity of the activities make it essential for us to understand the AML/CFT hazards related with the use of CBDC in cross-border payments. A haziness in compliance or monitoring could harm the nation's fiat currency. The RBI should set up new legislation and a centralized monitoring institution to regulate such processes for all cross-border payments and to demand that personal information about the sender and receiver be provided as component of all cross-border payments

as this will effectively address these problems and comply towards the Financial Action Task Force (FATF) norms and everything captured for tracking and future referencing within the CBDC transaction network itself.

➤ **For payment mechanisms currently in use**

A new CBDC network or payment system that coexists alongside the current payment methods will be created as a result of CBDC, which may depend on DLT (Distributed Ledger Technology). Payment method and CBDC-supporting products will be developed by working with current players and up-and-coming PSOs (Payment System Operator), payment umbrella companies, FinTechs, and technology providers with a focus on block chain and DLT. The distributed ledger can be connected with RTGS, which typically deals with high-value settlements, to automatically save liquidity.

Due to the ledger's inherent ability to verify each transaction, there is currently no need for a separate reconciliation mechanism (LSM) (Liquidity saving mechanism) to calculate the day's final net settlement value. For the benefit of the stakeholders and participants, additional income opportunities may be produced through CBDC's payment rails. With the rise of use cases for CBDC that involve payments, these revenue streams can be increased even more. Furthermore, as data will be maintained in the decentralised network, CBDC may improve the transaction's traceability and dependability. Before a transaction can be recorded in the DLT, it must first have numerous parties' attestations that it is real. The currency can operate without the need for an outside party to balance all transactions, even though the autonomous system itself may be maintained and overseen by the RBI.

➤ **For Technology**

The most common technology for CBDC transactions is DLT. DLT offers a community network that uses public key cryptography for protection and relies on consensus procedures. A CBDC has the benefit of maintaining permanent and unchangeable records for every transaction, making it possible to determine genuine ownership. The implementation of the concept of "programmable money" is aided by the DLT's virtual currencies transaction nodes, which can record and validate pertinent information or documentation about transactions as well as provide measures to safeguard against any misuse.

➤ **For Awareness**

RBI and other participatory banks conduct research on this project before implementation in whole nation. Awareness programmes for information like as how we use CBDC, its benefits and how this will be beneficial for the nation held across the nation. CBDC information provided through digital channel, newspapers, media for successful implementation of this pilot project of the RBI and Govt. of India.

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