

Analytical Study of Digital Currency in India- Issues and Challenges

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Abstract: According to a recent study by the United Nations Trade and Development Body (UNCTAD), more than 7% of Indian population owned digital Currency in India, 2021. In terms of ownership of digital currency by the people, India was ranked seventh in list of top 20 economies of the world. This article is an insight on the concept and trends of digital Currency of RBI. Private digital currencies are unstable financial asset that involve social risks and cost. Recently, there has been rapid increase in demand of such digital currencies in developing countries. If crypto currencies become a widespread and replace domestic currencies, it will jeopardize the monetary sovereignty of economies. Central Bank digital Currencies are regulated digital currencies issued by the Central Bank of the country. India also launched CBDC on 01 November 2022 by Reserve Bank of India Digital rupee as a pilot and hence, make India one among the world's 10 countries of the world adopting CBDC. In India it is referred as Digital rupee.

Keywords: Digital currency, RBI, crypto-currencies, Digital Rupee.

I. INTRODUCTION

Section 22 of RBI Act, 1934 empowers reserve Bank to manage currency of economy. India has made impressive progress towards innovation in digital payments. Digital India is one of the programs of the Government to transform India into digital economy and promote cash less society. the Digital Rupee or eINR or E-Rupee is digital version of Indian Rupee in tokenized form issued by Reserve Bank of RBI defines it as the legal tender in digital form. It is still in its evolutionary stage of currency. It is electronic form o sovereign currency. Many central banks of the world warned consumers about risks related to virtual currencies.

- **Objective-** This article explains concept of CBDC-its objectives, benefits and risks. The aim of this article is to create awareness about CBDCs. The author also seeks to explain Reserve Bank's approach towards introduction o f the digital rupee.
- **Methodology** –This article is based on information collected from website of RBI, government press note and qualitative data extracted from various newspapers and websites
- **Scope of study** – it is expected that this article would provide deeper understanding of digital rupee and help members of society for its proper use. The article also examines the implications of CBDC on the banking system, monetary policy, and financial stability of the economy.
- **Research gap-** presently 105 nations are in several stages of CBDC research, others are in experimental stage.
- **Concept of CBDC**-meaning, types



CBDC is virtual currency but different from private virtual currency. It posses trust, safety, liquidity, settlement finality and integrity. The main reasons for its issuance is to reduce operational costs in physical cash management promote financial inclusion, promote efficiency, innovation in the payments system, adds efficiency to settlement system and facilitate cross-border payments without any risks. It can be **token based** like banknotes, whoever holds them at given point of time, presumed to be owner. Or it can be **account based** where holders indicate ownership of the monetary balances. They avoid the risks of new forms of private money creation and improve the availability of central bank

money. They are more innovative, competitive and efficient in terms of payments in digital economy. They act as building block for better cross border transactions.

Objectives of Indian Digital Currency

- To progress in the competitive market of virtual currencies
- Access to payment system by the customers will expedite international trade.
- To lower transaction cost and facilitate real-time account settlements for the customers.

Features of CBDC

- Sovereign currency issued by Central Bank of the country
- Liability of central bank’s balance sheet
- Legal tender instrument-accepted as medium of payment
- Freely convertible into cash
- Possessor need not to have a bank account
- Reduces cost issuance of money and transactions

Types of CBDC

They are broadly divided into two-wholesale and retail CBDC

Table 1-Difference between retail and wholesale CBDC

Type/Difference	RETAIL CBDC	WHOLESALE CBDC
Started	First pilot for retail digital rupee on 01 December 2022	First pilot in digital wholesale segment started on 01 November 2022
Access	Available to all-private sector, non financial consumers, business	Restricted access to selected financial institutions
Relation	It is electronic version of cash for retail transaction	It is related for wholesale transactions and settlement of interbank transfers.
Transactions	Safe for payment and settlement.	Possess potential to transform settlement systems for financial transactions.
Banks started with	RBI identified phase wise 8 banks-SBI, ICICI, IDFC FIRST BANK, Yes bank in four cities and later BOB, UBI, HDFC, Kotak Mahindra Bank	RBI identified 9 banks for participation-SBI, HDFC, UBI, BOB, ICICI, IDFC first bank, kotak Mahindra Bank, Yes bank
Use and efficiency	Less efficient and secure	More efficient and secure.

Source-authors’ own compilation

II. BRIEF HISTORY OF CBDC INITIATIVE

The origin of digital currencies can be traced back to 1990s Dot-cum bubble. Many digital currencies were used for Ponzi scheme and money laundering. Q coins first appeared in early 2005 on Tencent messaging platform. They were alleged to have destabilized Chinese Yuan. The most accepted digital currency Bitcoin was established in 2008. It is also called as crypto currency as it is based on cryptographic technique. In India, National Payments Corporation of India designed Unified payments Interface that facilitates interbank transactions regulated by RBI.

To meet the economic needs of time, many forms of money have emerged over the period of time-coins, banknotes, cheques, credit cards. In November 2018, Christine Lagarde, Managing director of IMF urged Central Banks of the world to consider CBDCs to satisfy national goals. In 2018 RBI directed many financial institutions against facilitating transactions involving crypto currencies. Mumbai (Maharashtra), New Delhi (Delhi), Bangalore (Karnataka), Bhubaneswar (Odisha) would be the first four cities to launch followed by Ahmadabad (Gujarat), Gangtok (Sikkim), Guwahati (Assam), Hyderabad (Telangana), Indore (Madhya Pradesh), Kochi Kerala, Lucknow (Uttar Pradesh), Patna (Bihar), Shimla (Himachal Pradesh)

At global level, Bahamas was the first country to introduce it as Sand dollar followed by Nigeria in 2020 as eNaira. On 29 January 2021, Indian government proposed a bill to ban trading and investments in crypto currencies. Indian government is working on amendments of Coinage Act,2011, FEMA Act 1999, IT Act, 2000 and Crypto currency and regulation of Official digital Currency Bill 2021 that will govern CBDC in the country. On 5 October 2022, fintech Department of RBI released Concept note to create awareness and planned features of Digital Rupee. Recently, 2 September 2022 RBI launched digitalization of Kisan Credit Card developed by Innovation Hub with RBI. To process cross border transactions (inbound remittances) RBI allowed Bharat Bill Payment System (BBPS)

2.1 Need of CBDC in India

In the last decade, at global level, increasing usage and popularity of crypto currency like Bitcoin forced majority of the Central Banks to evaluate them in terms of safety and launch digital currency controlled by them to address the issue.

1. To address the malpractices-the existing crypto currencies, being in hands of the public, were most vulnerable to cross border payments and malpractices like tax evasion, terror funding or money laundering etc.
2. To address volatility –crypto currencies are highly volatile as their value is determined by demand and supply.
3. Push back digital currency proxy war-there is a need to push back against the digital currency proxy war which threatens national and financial security and sovereignty.
4. Reduce dependency on dollar-Digital rupee act as a superior currency for tar de with its strategic partners at global level.

2.2 Benefits of CBDC in India

- Cultural shift towards virtual by reducing currency handling cost.
- Government may get more reliable information on spending patterns to improve effectiveness of national policies.
- Convenience, security of virtual currencies and money circulation of traditional banking system both together
- Easier cross border transaction
- Financial inclusion of informal economy

2.3 Financial inclusion



In India, digital transactions has increased for payments of small purchases made through Unified Payment Interface .CBDC accessed via e-wallets can improve financial inclusion in India on mobile phones. Digital financial inclusion is critical for poverty reduction and inclusive growth. They can be designed to include people who are not able to access financial services. Anonymity being one of the features of currency, with CBDC to get legal provision is possible to ensure anonymity. According to National Payments Corporation of India more than billion transactions are made with help of UPI. With CBDC government can enforce its adoption and use. Government can get access to all data due to Draft Data Protection law. A joint effort of various banks and government agencies along with multi-lateral agencies would help to to meet specific requirements.

2.4 Challenges faced by digital currency in India

1. Acceptability

For any digital currency to be acceptable for payments, should gain acceptability from all stakeholders like banks, intermediaries and end-users.

2. Cost benefit analysis

The underlying technology and infrastructure involves huge costs. It might be expensive. It must be ensured that such currency meets needs of convenience, stability, user friendly and voice controlled functions in positive and beneficial way.

3. Legal framework

In India fulfilling KYC norms and identity proof are critical. There should be coordination between government agencies, banks and multi-lateral agencies. Cyber security safeguard measures must be taken.

4. Cross border payments

Cross border money transfer and conversion into foreign currency is expansive. Such risky transactions must be limited. It calls for collaborative efforts.

2.5 Comparative analysis at international level

Table 2- comparison of digital currency of central banks of different countries

Country/indices	US	CANADA	UK	FRANCE	CHINA	JAPAN	INDIA
Digital currency	USA CDBC	JASPER	UK CBDC	France CBDC	e-CNY	Digital Yen	Digital rupee
Central bank	US Federal reserve	Bank of Canada	Bank of England	European central bank	People's bank of china	Bank of japan	RBI
Domain	Wholesale	Wholesale	Wholesale	Wholesale	Wholesale/retail	Wholesale/retail	Wholesale/retail
Structure	Tokenized	Account based/tokenized	-	Tokenized	Account based	Account based/tokenized	-
Technology	-	Distributed ledger technology	-	DLT	Non-DLT	Non-DLT	-
Cross border settlements	None	Project jasper	-	Digital euro	Mebdc Bridge	Project Stella	NA
Present status	Research being done	Pilot –less participants	Research going on	Pilot – less participants	Pilot-less participants	Testing in controlled environment	Early testing in controlled environment

Source- author's own compilation

III. CONCLUSION

CBDC is supposed to make India stronger as digital economy. In India, this will provide opportunities for policy makers to make services easier for customers to transact for various requirements. Digital rupee's usage of block chain technology will increase efficiency and transparency. Given the advancement of technology in transactions, it is

possible that RBI may increase interest in it. China and Sweden have rolled out pilot project. UA, UK, India is still examining pros and cons of CBDC. In India, people don't know about e-rupee since it is still in pilot phase. It will take time to become popular.

REFERENCES

- [1]. <https://rbidocs.rbi.org.in>
- [2]. <https://statc.pib.gov.in>
- [3]. <https://www.pwc.in/fintech/pv-download>
- [4]. <https://www.drishtias.com/pdf>
- [5]. <https://www.adb.org>
- [6]. <https://parliamentlibraryindia.nic.in>
- [7]. <https://www.ey.com>
- [8]. <https://www.forbes.com>
- [9]. <https://www.insightsonindia.com>
- [10]. <https://assets.ey.com>
- [11]. <https://www.weforum.org>
- [12]. <https://guiely.in>
- [13]. <https://www.adb.org/publication/adbi-wp1022>
- [14]. <https://www2.deloitte.com/in/fs/cbdc-noexp>