



A conceptual study on Central government and RBI initiatives to boost CBDC circulation in India

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Abstract

The research paper is on the action being taken by the Government of India and Reserve Bank of India as a step towards driving the usage and circulation of Central Bank Digital Currencies (CBDC) in India. Since the digital economy has been developing at a very rapid rate, RBI and the Indian government want to possess a low-cost, high-value, secured payment system through the launch of the digital rupee (₹). The paper discusses the strategies, attempts, and regulatory measures undertaken by the organizations to develop the CBDC ecosystem in India, problems, and probable benefits towards financial inclusion, efficiency, and economic stability in India. This paper also brings the success of the pilot projects for the first time, technology readiness concerns, and overall concerns on privacy and security.

Keywords: Central Bank Digital Currency (CBDC), Government of India, Reserve Bank of India, Digital Rupee, financial inclusion, payment systems, India, blockchain, economic stability, financial ecosystem

Introduction

With its rapidly developing digital economy and more than 1.4 billion populations, India holds vast potential for leveraging the Central Bank Digital Currencies (CBDCs). With the RBI and the Indian government working in sync on the digital rupee (₹), this can become game-changing for India's economy, enhance payment systems, and increase financial inclusion.

The rupee experiment is the global trend where central banks pilot or test digital forms of their fiat currency in order to stay in sync with a fast-digitizing world. While popular private digital currencies such as Bitcoin and Ethereum dominated most of the headlines, governments and central banks do not want to abdicate control of money systems and CBDCs provide a secure, government-approved alternative.

This article describes RBI and Government of India's move and action towards the circulation of CBDC in India based on monetary regulation, financial inclusion, payment system efficiency, and adoption issues.

Literature Review

Reserve Bank of India (2022) ^[1] It has devised a concept note, that is the proper form for India's CBDC initiative outlining major motivations, design choices, and expected benefits of introducing a digital rupee, which further clarifies two types of CBDCs-mainly wholesale and retail and various usage scenarios. The note also clarifies the role of CBDCs in cost reducing in physical cash management, increasing financial inclusion, and enhancing payment system resilience. It also covers the role of banks as an intermediary, which focuses on the important task of arranging safe distribution and processing transactions. The document informs regarding the view from the regulatory end and the vision that the central bank has for the digital currency system and the various roles that the banking institutes may play.

Reserve Bank of India (2023) ^[2]. Official statements on this launch, the retail CBDC pilot, include an update by the RBI regarding the first phase of the pilot together with the list of

participating banks and cities. More importantly, it recognizes factors to facilitate everyday transactions between the retail CBDC and payment systems. The document offers early insight into the operational success of the pilot and outlines the participation expected by more banks and cities in the future. Reviewing this press release puts much-needed context to the timeline and scope under which CBDC was conducted in its early stages.

Mr. Shivam Tripathi, Mr. Ashutosh Chaubey, Ms. Ishanki Goel (2022) ^[3] This Literature review collates the newly emerging research articles on the Indian government's adoption procedure of CBDC, its implication for the economy, and challenges ahead in using the same. Introduction of CBDC brings transformative opportunities into India's financial landscape. This review identifies multifaceted implications of CBDC based on considerations of design as well as the factors of demand for monetary policy and financial stability. The initiation of the Indian government regarding CBDC will long continue, and filling up these knowledge gaps so identified in this review will be equally important to ensure its successful implementation and maximize the benefits from digital currency. The largest receiver of global experiences, localizing solutions to their site, India thus should be in an advantageous position to lead the new revolution of digital currency-an inclusive resounding voice for a secure and financial future.

Afreen Begum (2022) ^[4] summarized the research study on existing research studies on CBDC, which paid a high importance to the implications of CBDC on the Indian economy, banking sector, and financial inclusion. And in India, CBDC brings to the forefront complex interplays of opportunities and challenges. The different gaps still exist in understanding socio-economic implications and have readied different population segments toward embracing CBDC.

Satish Babu1, K M Abraham (2021) ^[5] this literature on CBDCs provides a good foundation to understand the potential effects of a CBDC system in India. With the Indian government planning to introduce a CBDC, policymakers must reckon with various economic, social, and operational

implications which have surfaced in the research undertaken so far. Then, filling knowledge gaps and further research would be critical to help ensure that India's CBDC initiative is both efficient as well as beneficial for the economy and society in general.

Research Objectives

The study aims to:

1. To Discuss RBI and Government of India's attempt in launching and popularizing CBDC.
2. To Discuss the effects of CBDC adoption on financial inclusion, monetary policy, and the Indian payments system.
3. To Discuss RBI and Indian government concerns about increasing circulation of CBDC and suggest remedies.

Methodology

This study is conceptual in nature. Materials are collected from Secondary Sources. The sources incorporate working papers published by central bank, financial organizations, bank institutes and Government reports. Any biased data on the secondary source may reflect on the study, which will be a limitation.

Context and Background

1. CBDC Emergence

A Central Bank Digital Currency, or CBDC, refers to the nation's digital currency, issued and held by the nation's central bank. Unlike stateless digital currencies like cryptocurrency, the CBDCs are state-owned and state-backed. The reason behind creating CBDCs is due to pressure for quicker, cheaper, and more secure payment methods and increased concern with the volatility and lack of regulation of cryptocurrencies.

2. India's Financial System

India has made spectacular strides in digital payments over the last ten years. The Unified Payments Interface (UPI) of 2024 broke the model of how Indians were transacting digitally. India boasts one of the biggest digital payment markets globally with over 7 billion UPI transactions per month in 2024. Financial inclusion, though, particularly rural India, is still lacking. Over 190 million adults remain unbanked in India (as of 2024), and banking access continues to be an issue in rural areas.

3. The role of the RBI

The Reserve Bank of India (RBI) has a pivotal role in defining India's financial ecosystem. As the central bank, it has responsibilities for monetary policy, financial stability, and payment systems. In 2021, RBI announced the launch of a digital rupee by initiating a pilot for a wholesale CBDC (e₹-W) and then a retail CBDC (e₹-R). It is a strategic move to keep monetary policy within the government's control, decrease the cost of the transaction, and bring about financial inclusion. 4. RBI and Government Policies for Promoting CBDC Adoption

Introduction of RBI Pilot Project

RBI has launched its digital wholesale CBDC (e₹-W) pilot in November 2022. It will assist in tapping the velocity of settlements among banks and minimizing the size of large-value payments. The retail CBDC (e₹-R) pilot was carried out later on December 2022 in certain selected cities for

availing the digital money towards tapping daily transactions, wherein the government offices, business enterprises, and the customers can avail the digital money.

Wholesale CBDC (e₹-W): The RBI's wholesale pilot focuses on using CBDCs for large-value transactions between financial institutions and banks. For example, the RBI used e₹-W for interbank settlements, reducing the time required for clearing and settlement of transactions from days to minutes.

Retail CBDC (e₹-R): The retail pilot will facilitate use of e₹-R by business users as well as the general public as a payment instrument. This would be layered over India's successful digital payments network, i.e., UPI, which already is an omnipresent network for day-to-day transactions. e₹-R will be designed to operate in parallel with the current payments network and even supplement it.

1. Legal and Regulatory Framework

The tax regime for digital assets came into effect with the 2022 Finance Act, and the same is the case for CBDCs. The same has been laid down in the act with respect to the legal position of the digital currencies and how they need to be integrated into the Indian economy. Apart from that, the government is in talks with the RBI with the hope of arriving at a framework that would allow CBDCs to integrate into the existing financial system. The framework includes: Anti-money laundering and anti-terrorism financing regulations. Consumer protection regulations. Compliance with international standards of digital assets.

2. Financial Inclusion Objectives

The CBDC project possesses financial inclusion as one of its most vital aims. The government intends to take bank amenities to unbanked areas through digital money. CBDCs have the potential to bring financial services of rural residents farther afield without adding extra bank branches, which are typically lagging behind in far-flung areas.

3. Efficient payment system

India's payments sector is booming with the UPI ecosystem being its flag bearer. Interoperability of the CBDCs with the UPI platform will facilitate easier payments, lower transaction costs, and improved cross-border payments.

4. Public Awareness Campaigns

In order to achieve smooth transition with the adoption of CBDCs, the RBI with government backing has implemented series of public campaigns. These are aimed at educating the masses about the advantages of CBDCs, their security aspects, and even usage. These are mandated to de-mythify and accustom the masses to electronic money transactions.

Research Findings.

1. High Adoption Potential

India's youth population, and population in general, is as eager to adopt digital technologies. The popularity of UPI and mobiles is an indicator that it is a suitable terrain for adopting CBDC. Preliminary evidence from RBI pilots is that individuals will take to CBDCs as a payment instrument if it is properly plugged into current platforms and digital wallets.

2. Financial Inclusion Impact

CBDCs will increase financial inclusion to a great extent. In far-flung areas, distant from banks, digital rupees can

become a safer and more convenient means of holding money and payment. Under government initiatives such as PMJDY, digital rupees, the financial system can reach people to a greater extent than before.

3. Increasing Payment System Efficiency

Integration of CBDCs in the Indian payment system will likely simplify transactions. The pilots have already been quicker and cheaper in transaction costs, especially in cross-border transactions.

4. Privacy and Cybersecurity Concerns

While CBDCs are full of potential, they come with data privacy and cybersecurity issues as well. Citizens are worried that CBDCs would help the state trace them, and businesses worry about hacking. These issues have to be taken care of through sound encryption, secure platforms, and open privacy policies.

5. Technological and Infrastructure Challenges

While there exists a basic infrastructure for the CBDCs, digital literacy and connectivity will be issues, particularly in developing and rural areas. It would be a task that would require the government to undertake an additional function of implementing the needed infrastructure on a national scale.

Conclusion

The Reserve Bank of India and the Government of India's initiative to launch Central Bank Digital Currencies (CBDCs) is a milestone in the financial trajectory of the country. Although pilot projects are in their nascent stages, they provide encouraging glimpses of the extent to which CBDCs can revolutionize payments infrastructure, drive financial inclusion, and keep transactions low-cost. Currency security, anonymity, and infrastructure remain the key issues to resolve.

If everything goes right, the digital currency would be the center of India's future finance in line with the government plan for a cashless economy and furthering the financial inclusion of everyone.

References

1. Reserve Bank of India. Concept Note on Central Bank Digital Currency (CBDC). Retrieved from <https://www.rbi.org.in>, 2022.
2. Reserve Bank of India. Press Release: RBI launches first pilot for Retail Digital Rupee. Retrieved from <https://www.rbi.org.in>, 2023.
3. Shivam Tripathi, Ashutosh Chaubey, Ishanki Goel: an empirical analysis of potential central bank digital currency adoption procedure by Indian government its implications. *An International, Peer Reviewed, Open Access Multidisciplinary Journal*, 2022, 1(1). www.sachetas.in
4. Afreen Begum central bank digital currency (cbdc): challenges prospects in india. *PURĀṆA*, 2022, 66(4).
5. Satish Babu KM, Abraham, Central bank digital currencies: policy operational perspectives for India, 2021. <https://doi.org/10.1007/s40012-021-00327-6>,
6. Samudrala RS, Yerchuru SK. Central bank digital currency risks, challenges design considerations for India. *CSI Transactions on ICT*, 2021:9(4):245-249.

7. Ahiabenu K. Unpacking Central Bank Digital Currency (CBDC) Implementation Challenges Risks. In *Exploring the Dark Side of FinTech Implications of Monetary Policy*, 2023, 207-231.
8. Agarwal N. Central bank digital currency alternative currencies: parallel paradigms. *International Journal of Blockchains Cryptocurrencies*, 2020:1(4):374-388.