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TO GET INSIGHT INTO ISSUANCE MOTIVATIONS BEHIND INTRODUCING CBDC IN INDIA

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Abstract

The era of information and communication technologies has produced numerous opportunities in every field. Finance and business sector is most benefitted field from these recent developments. The spotlight quickly shifted from "Fintech," which emerged in the last ten years, to "crypto currency," then to "CBDC," demonstrating that how quickly the world of digital finance is changing. CBDC is similar to blockchain technology but is controlled and regulated by Reserve Bank of India (RBI). The pilot study of retail segment of CBDC has commenced from the beginning of December 01, 2022. This paper made an attempt to delve into the understanding of Central Bank Digital Currency and to probe the motives behind the issuance of CBDC. RBI is currently working toward a phased deployment plan, progressing gradually through several rounds of pilots before the final launch and concurrently looking at use cases that might be adopted with little to no impact.

Keywords: *Blockchain technology, CBDC, Digital currency, Financial inclusion, Financial innovation, Digital rupee*

1. INTRODUCTION

The Reserve Bank of India (RBI) would launch a blockchain-based digital rupee by 2023, according to a statement made by Finance Minister Nirmala Sitharaman on February 1, 2022 during the budget speech. In November 2021, bill for digital rupee was drafted. By March 2023, India intends to launch its "digital rupee" (CBDC), which will serve as the country's official digital currency. The digital rupee will function on the blockchain to make currency administration more accessible, inexpensive, and efficient. In line up with this, Das (RBI Governor) had stated that before introducing the CBDC, the central bank is taking its time and thoroughly evaluating all the relevant factors. The development of India's payment infrastructure will serve as a crucial foundation for the country's residents and financial institutions to have access to a cutting-edge CBDC. This declaration added India's name to the growing list of nations actively considering the issuing of a CBDC.

The RBI will issue the digital rupee also known as a CBDC and it would be treated as legal cash online. Like fiat money and conventional cash, the digital rupee will have a value that can be utilized in exactly the same ways as usual transactions. A private blockchain system is used to operate the digital rupee which is essentially an electronic version of the fiat currency used in India. The blockchain is a decentralized, reliable, and difficult to access database storage technology (Tasatanattakool & Techapanupreeda, 2018). A CBDC is generally agreed to be a liability of the central bank issuing it and to have characteristics similar to those of cash (Ozili, 2022). CBDC is also known as electronic money, cybercash, digital money or electronic currency. The central banks of South Africa, Europe, Canada, and Japan are all investigating this idea as well. The list also includes the Bank of England and HM Treasury. Banks will employ CBDC as an alternative to the current medium of exchange rather than outright replacing fiat money (Tripathi et al., 2022) and this change is being viewed as both an essential part of the modernization of finance and a complement to the current payment options.

Digital currency standards are only available in electronic form and lack real features (Farooqui, 2022). By expanding financial inclusion, reducing financial frictions in the deposit market and improving the transmission of monetary policy, it may increase welfare. Nevertheless, there are significant risks associated with a CBDC including the possibility of bank disintermediation, which would reduce bank lending and perhaps have adverse effects on financial stability (Infante et al., 2022).

2. LITERATURE REVIEW

CBDC is not an entirely novel idea. According to (Ducrée, 2022) Satoshi Nakamoto, the person who created the initial bitcoin, formally unveiled cryptocurrency and blockchain technology in the year 2008. However, according to (BitIRA, 2022), the Bank of England's initial discussion of CBDC in 2015 was the catalyst for other economic organizations and regulatory authorities to begin taking the concept thoroughly. The adoption of CBDCs should be assessed by central banks preferably in light of their responsibility to promote not only price stability but also a variety of other aspects of the public good (Bank of England, 2021). According to the study by (Ozili, 2022a), Indians who were intrigued about "cryptocurrency" also wanted to acquire knowledge about "central bank digital currency" because of the possible advantages it may likely to offer including a decrease in the need for cash, higher seigniorage due to reduced transaction costs and less settlement risk.

(Eichengreen, 2022) analyzed the grounds for India's CBDC issuance. These include making cross-border transactions easier, lowering reliance on the dollar as the primary reserve currency, increasing financial inclusion, making payments easier, maintaining central bank and governmental control over the payments system, and providing a robust platform for digital financial innovation and assessed India's development in comparison to other nations. Along with nations like Israel, Russia, Australia and Japan, India is one of the 16 nations currently working on CBDC. However, (Farooqui, 2022) highlighted the focused tour of the growing literature on CBDC's microeconomic considerations related to functional structures, innovations, and security as well as the macroeconomic implications for the monetary system, monetary dependability, and financial system. On the other hand, (Ozili, 2022b) presented recent developments in CBDC research in a way that will encourage scholars, decision-makers, and practitioners to examine CBDC more closely. Author (Elsayed & Nasir, 2022) emphasized how CBDCs affect the macroeconomy and financial systems, provided a scope for additional research and suggested new trends and research opportunities.

3. RESEARCH METHODOLOGY

India has been leading the way in digital payments with UPI and Jandhan Yojna. The country's expanding use of digital payments and continued interest in using cash particularly for low-value transactions, create a rare situation according to deputy governor Shankar. Our paper first serves as a prelude to comprehending the significance of CBDC and then tries to find out the rationale behind the issuance of it.

3.1 Characteristics of CBDC

1. A form of sovereign currency known as CBDC is one that central banks issue in accordance with their monetary policies.
2. Shown as a liability on the central bank's balance sheet.
3. All individuals, businesses and governmental entities should accept as a medium of exchange, legal tender and a secure store of value.
4. Freely convertible against cash and commercial bank currency.
5. Holders of fungible legal money are not required to have a bank account.
6. Anticipation of lowering down the cost of making money and carrying out transactions.
7. Retail and wholesale customers can access the payment systems 24/7, 365 days a year.
8. Ensures smooth settlement and thereby reduces settlement risk in the financial system.

3.1.1 CBDC Features

Core CBDC features that are unique to the CBDC instrument itself would be the first addition to the list. The following are some of the primary instrument features you may discover in CBDC:

(i) Convenience

CBDC transactions should be as simple and convenient as cash payments, QR code scanning, and credit card swipes. CBDCs may encourage uptake and accessibility by providing straightforward payment methods.

(ii) Low cost

End users should be able to get CBDC payments at very little or no cost is another component of central bank digital currency characteristics. Additionally, CBDC must make sure that end customers only need to invest a little amount of money in technology.

(iii) Convertibility

To preserve the currency's distinctiveness, CBDC should be freely convertible at par into private money or cash.

(iv) Recognition and availability

All cash-based transactions including those that take place at the point of sale or between individuals should be subject to CBDC. Additionally, CBDC should make it possible to conduct offline transactions usually for limited periods and with set criteria.

3.1.2 System Features

The platform hosting the solution or the CBDC system is specifically linked to the system features. Following are some of the key system components of CBDC:

(i) Security

Participants and the system's infrastructure should both maintain high levels of resistance to threats, including cyber attacks. The CBDC should put in place reliable anti-counterfeiting measures.

(ii) Instant settlement

CBDC should make instantaneous or real-time settlement possible for all end users of the system.

(iii) Availability

The CBDC system's end users should be able to make payments at any time, 365 days a year and seven days a week.

(iv) Resiliency

The potential to be more resilient should be a feature of digital currencies issued by central banks against operational failure and disruption caused by power outages, natural disasters, or other conceivable factors. Additionally, end users should be able to conduct offline transactions when network connections are unavailable**.**

(v) Interoperability

The system should be able to offer appropriate interaction mechanisms alongside private sector digital payment systems in order to make it easier for cash to be transferred across systems.

(vi) Flexibility and adaptability

A CBDC system should be flexible and adaptable in order to ensure that it can handle changing circumstances and policy demands without malfunctioning.

(vii) Throughput

The CBDC system must be able to handle a sizable volume of transactions.

3.1.3 Institutional Features

The institutional aspects are the final set of characteristics which describes the context in which CBDCs must operate is referred to as the institutional features. Following are some of the noteworthy institutional characteristics of CBDC:

(i) Strong Legal Framework

Clear precedents and rules should be established by the central bank before it can exercise its power to issue a CBDC.

(ii) Standards

All relevant regulatory requirements must be followed by the entire CBDC system including the supporting infrastructure and participating organizations.

3.2 Motivations for issuance of CBDCs

Both the private sector and central banks mention financial inclusion as a rationale for releasing a digital currency as one primary justification behind the issuance of a CBDC currency according to (Maniff, 2020). Still, the implementation of CBDC has been justified by various jurisdictions for a variety of reasons. Below is a list of some of them:

1. Central banks are aiming to promote the use of an electronic form of money that is more generally accepted in response to the falling use of paper currency (like Sweden);
2. Countries that use physical cash frequently are attempting to improve the efficiency of issue (like Japan, Germany, Denmark or even the US);
3. Countries with geographic limitations restricting the physical movement of money had an incentive to choose CBDC.

4. Central banks try to accommodate the public's demand for digital currencies which is seen in the form of rise in the use of private virtual currencies and thereby avoid the more negative effects of such private currencies.
5. Promote digitization in order to transition away from a cash-based economy.
6. Fostering innovation, efficiency, and competitiveness in payments.
7. Universal access attributes of a CBDC will enhance the resilience, reach, and financial inclusion.
8. Keeping the public's faith in the Indian rupee despite the growth of crypto assets.

4. CONCLUSION

The economic times reported that the Reserve Bank of India (RBI) has hired at least five organizations to work on the retail pilot project of the CBDC including ICICI Bank, SBI, yes bank, HDFC Bank, and IDFC First Bank. In addition, wholesale segment of India's very own Digital Currency commenced from November1, 2022. However, CBDC's primary features are focused on enhancing use while also preserving financial and regulatory stability. Along with this, the importance of design and technological trade-offs for security or offline transactions must also be maintained. The usage of CBDC will enhance fiscal and monetary policy initiatives as well as financial inclusion. RBI and the Indian government are working together admirably to adopt a technology at such an early age. This illustrates the country's forward-looking mindset. and will provide it a first-mover edge in a number of ways (Tripathi et al., 2022).

But in reality India has not yet progressed as far as other nations in defining the design architecture that will direct the CBDC's operations. A pilot needs clearly defined design architecture. Effectively implementing a CBDC and guaranteeing that the benefits are widely felt necessitates actions on a number of fronts including promoting greater smartphone adoption, defining data protection, know-your-customer requirements and confirming banks' technical readiness according to (Soderberg et al., 2022). The societal effects of cryptocurrencies and similar technologies must be actively addressed by the government. We cannot adopt a "One Size Fits All" strategy, claims Dr. Seny Kamara, an associate professor at Brown University and developing a solution requires a thorough investigation (Sannidhi & Sharma, 2022). The introduction of CBDCs has a number of strong justifications. So, RBI is currently working toward a phased deployment plan, progressing gradually through several rounds of pilots before the final launch and concurrently looking at use cases that might be adopted with little to no impact.

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