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Indian Digital Rupee & Its Future Prospective in India

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Abstract

The introduction of CBDC or e-Rupee is a massive rise in India's digital transformation mechanism. Digital-Rupee may prove to be an appropriate currency and alternate to the paper currency for financial transactions that the economy wants to usher with more security, trust, resilience, and efficiency in the currency management system. In the present scenario, the UPI (Unified Payment Interface) deserves a great applause with its ease and flexibility that has reduced the cash usage in the financial markets at retail levels also emerged as a game changer in the Indian financial system. Moving further in this way, if the potential challenges related to implementation of digital currency are addressed properly, CBDC could make a great impact on the economy and helps in creating global economy with ease in doing businesses by removing financial hurdles and geographical barriers. In this framework, Digital-Rupee/CBDC ensures financial and environmental stability in the economy and ultimately boosts financial inclusion in the country bringing everyone under formal financial system.

Keywords: Digital-rupee, financial inclusion, currency, economy, blockchain

Introduction

During recent years, with the speedy growth in global cashless transactions, digital currencies have gained worldwide attention in the industry. A digital currency is like any other physical currency, but its availability is truly in electronic form. The step of demonetization of currency in the year 2016 by the Indian government paved the way towards the adoption of digital payment system in India. Now the world is adopting digital currency and India is also exploring digital rupee like many other countries in the world and has launched its own Central Bank Digital Currency (CBDC). Almost 114 countries are exploring CBDCs, and many of them about 60 countries are at the stage of advancement. Countries which have already launched a retail CBDC (R-CBDC) are Cambodia, East Caribbean Union, Bahamas, China and Jamaica, Nigeria. Central banks which are exploring an exclusive wholesale CBDC (W-CBDC) are Australia, Singapore, the European Union, and Saudi Arabia. "Digital Rupee" or "e₹" is a legal tender quite like sovereign paper currency issued in India, in digital form by the Reserve Bank of India. Digital rupee offers features of physical cash like safety, trust, and settlement finality with atomicity or in other words the immediate settlement of transactions in digital way. The Indian Digital Rupee was proposed in January 2017 and launched on 1st December 2022 with the blockchain distributed-ledger technology. As like banknotes it has unique identification and is regulated by Reserve Bank of India. With the involvement of blockchain technology, the digital rupee will work with increased

efficiency and more transparency. Blockchain technology will also help in enabling real-time tracking and the maintenance of ledgers. This payment system will be available for wholesale and retail customers round the clock. Indian customers can pay without the involvement of any middleman.

The launch of e-Rupee or Digital Rupee in India is a step towards making of our economy digital, while having a rise in the adoption of internet-based and mobile payments, besides making improvements in the heavy cross-border financial transaction process. The financial institutions that are having reserves in the RBI can make transactions in CBDC/Digital-Rupee and make it simpler to reduce potential counterparty risks. CBDC is also anticipated to accelerate the procedure by automating the method of financial transaction and its settlement. Some other potential zones where CBDC can be leveraged to make the process simpler for transactions involving international forex trade and government securities. Digital-Rupee can function as a practical alternative to paper currency, the issuance and circulation of paper currency involve a long process with the government while incurring heavy costs. As the circulation of cash increases, it brings pressure on storage and distribution channels, as well as on the environment due to its carbon footprint. A greater amount of cash or paper currency in circulation means too much pressure on government and its regulators in terms of printing, storage, and distribution. This poses several risks such as spoilage, counterfeits, and other currency related security risks. While talking about paper currency, a major risk

involved in carrying cash is the risk of being lost or theft. To overcome this particular risk, e-Rupee has better control over its usage and distribution to the central bank. This is one of the principal inspirations for the RBI to launch Digital-Rupee in the economy.

If we talk about the design and structure of Digital-Rupee/CBDC, it depends upon the functions it is being expected to perform underlined by the RBI in its concept note. The implications of digital currency for monetary policy, payment systems and the structure and stability of the financial system will be based on its design. A primary consideration for the design of CBDC is that it should be least troublesome.

Advantages of Digital Currency

- i). It works as a faster mode of payment in comparison to other traditional payment methods.
- ii). It will result into cheaper and easy way to make international financial transaction.
- iii). It works offline round the clock to facilitate the retail transactions on ground level especially in rural areas.
- iv). It puts little financial load on the government as it doesn't require any printing and storing costs because physical currency involves a lot of expenditure on its printing, distribution, and other security features.

Effects of Digital-Rupee/CBDC in India

In these days Central banks of various countries and developing economies are implementing retail CBDCs in emerging markets. The reasons behind this are to enhance the efficiency in the payment systems. In context to India, following effects and motivations arise:

- i). **Boost in Financial Inclusion:** A digital transaction at any point of time and round the clock can work even offline and doesn't need any brick-and-mortar branch or functional bank account. This will give a major lift to the financial inclusion drive.
- ii). **Cashless Economy:** Keeping cash in hand or at home has always been so risky because of theft and other storage related concerns. Even carrying cash during shopping also puts mental pressure. But with the introduction of Digital-Rupee with restrictive anonymity will give upper hand to cashless transactions in the economy and will be a step towards encouraging a cashless economy.
- iii). **Boost in Payment Mechanism:** CBDC could work as a new platform for revolution in payment system and bring diverse options to the customers. It involves no liquidity and credit risks and that will lead to removal of barriers for firms to innovate and generate new capabilities.
- iv). **Curbing Money Laundering:** There always remains a concern about privately issued digital assets and a substantial share of the population trading, transacting and holding in such assets like Digital Currency but this is not the case with Digital Rupee/CBDC as it is not that much vulnerable to instability and volatility. It ensures safeguarding of individual rights.
- v). **Reduction in Operational Costs:** In India large amount of cost is involved in the cash management services that involves printing, storing, distributing etc. The introduction of Digital Rupee/CBDC will surely ease out the pressure on the government in context to costs of printing, distribution and storage of currency notes, and will also contribute towards India's ESG goals by helping in reduction of carbon footprints.

- vi). **Ease in Security Settlements:** This system will help in the settlement of securities easily, safely, and effectively within no time. It is based on the DvP settlement mechanism that is used to ensure that the delivery and settlement of financial securities in the payment system will occur simultaneously.

Conclusion

Digital currencies are revolution in financial technology and that will give impact in many ways especially in payment & settlement systems and services. Now the concept of digital currency is not persistent, it will appear strongly with disruption to the existing payment and settlement systems. Since its inception, India's stand on crypto currencies hasn't been inspiring and hopeful which is quite evident from RBI's directives to stop dealings in cryptocurrencies in the Indian financial markets. But now RBI is exploring Digital-Rupee with block chain technology that can be introduced at the first stage for retail transactions with the appropriate security features and can be allowed further while examining its viability for investment related transactions in coordination with the existing payment. Blockchain technology is bringing up a great transformation in the financial system to change the financial dealings and the payment mechanism. It is concluded that the adoption of block chain technology in the digital currency will prove to be a game changer in the coming years and will surely rule the economies in the world.

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