Abstract:

The current payment system in India faces difficulties, such as lengthy settlement delays, high transaction fees, and potential security flaws, no chargeback protection. This paper offers a proposal for developing a secure, reliable, efficient and transparent CBDC-backed payment system in India. We look at the advantages and disadvantages of using CBDCs as a payment option, emphasizing the need for cooperation between policymakers, business owners, and other stakeholders to achieve a seamless transition to a CBDC-based payment system. While noting the potential advantages of CBDCs, such as enhanced financial inclusion, lower costs, and increased transparency, we stress the significance of creating a strong regulatory framework to avoid possible dangers. The need for a workable solution that can offer quick and secure transactions, while also promoting financial inclusion and reducing reliance on intermediaries, is emphasized in this paper's thorough analysis of the CBDC payment environment and its potential impact on the Indian financial system. The proposed CBDC-based payment system intends to increase effectiveness and confidence in the Indian financial system, helping the nation build a cutting-edge and long-lasting payment infrastructure.

The emergence of cryptocurrencies, which have garnered substantial appeal among investors and traders, has caused a dramatic upheaval in the world of finance. Central banks, on the other hand, have remained sceptical of cryptocurrencies and their ability to replace traditional currencies. As a result, Central Bank Digital Currency (CBDC) has emerged as a potential alternative. The power of homegrown UPI system by NPCI which enables you to transfer money just with a unique UPI id and an internet connection is truly a game changing development in fast, secure and reliable way to transfer money. This paper proposes a payments system for CBDC based transactions which not only improves reliability but also adds in a feature to hold money leveraging the benefits of blockchain technology along with smart contracts feature to tackle issues of current UPI system. This system will be able to provide a secure, reliable, transparent and fast mechanism to transfer money, with a focus on holding money in escrow until certain conditions are met using smart contracts.