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E-RUPI

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Introduction

The digital Rupee or E-Rupee is tokenised digital version of Indian Rupee, issued by the Reserve Bank of India (RBI) as a central bank digital currency (CBDC). The Digital Rupee was proposed in January 2017 by a inter-ministerial committee. It was formed under the Department of Economic Affairs in Ministry of Finance and recommended a digital form of fiat currency. The Department of Financial Services of MoF (Metal Organic Form), Ministry of Electronics and Information Technology and the RBI were invited to look into legal and technological development of CBDC. After RBI announcing sandbox to test next generation technologies to benefit the financial ecosystem, the Indian Government proposed a bill to ban trading and investments in crypto currencies while giving legal power to RBI for developing CBDC. As per the Currency and Finance Report of 2021 released by RBI, CBDC backed by the sovereign must promote non-anonymity transactions and financial inclusion by direct transfers. Even though RBI was planned to trial the initial stage of CBDC from December 2021, the Government of India worked on amendments of The coinage Act(2011), FEMA Act (1999), IT Act(2000) and Crypto currency and Regulation of Official Digital Currency Bill, 2021 to govern CBDC in the economy. National Payments Corporation of India (NPCI) in association with Department of Financial Services (DFS), Ministry of Health and Family Welfare (MoHFW), National Health Authority (NHA) and partner banks, together associated in the development of 'e- RUPI'. The pilot in this whole background, known as the Digital Rupee or E-Rupee was launched on 1 November 2022. The launch of the digital rupee represents a significant advancement in the "Digital India" revolution.

WHY E-RUPEE?

The Government of India was launched the digital revolution under the flagship programme called Digital India from 2015 through the initiatives like BHIM-Unified Payments Interface, Digilockers, E-Hospitals, E-Pathashala, Direct Benefit Transfer (DBT) to transfer money for the beneficiaries. But during COVID-19 pandemic there were some issues pertaining to accessing bank accounts, Aadhaar authentication failures etc. Then the Government wants to find a solution to remove this problem and e-RUPI is the answer to stop the

leakages in the system.

FEATURES OF E-RUPEE:

Rupee is digital token that will be the equivalent of a banknote, and can be transferred electronically. It is a digital platform which will be used for making digital payments and to strengthen the Direct Benefit Transfer (DBT) scheme and digital transactions (Business to Business (B2B) transactions) among Micro, Small and Medium Enterprises (MSMEs). E- rupee is a prepaid UPI e-voucher that can be redeemed either through a QR code or an SMS string by the intended beneficiary. It is a Sovereign currency issued by the central bank. It is accepted as medium of payment or legal tender and is freely convertible against cash.

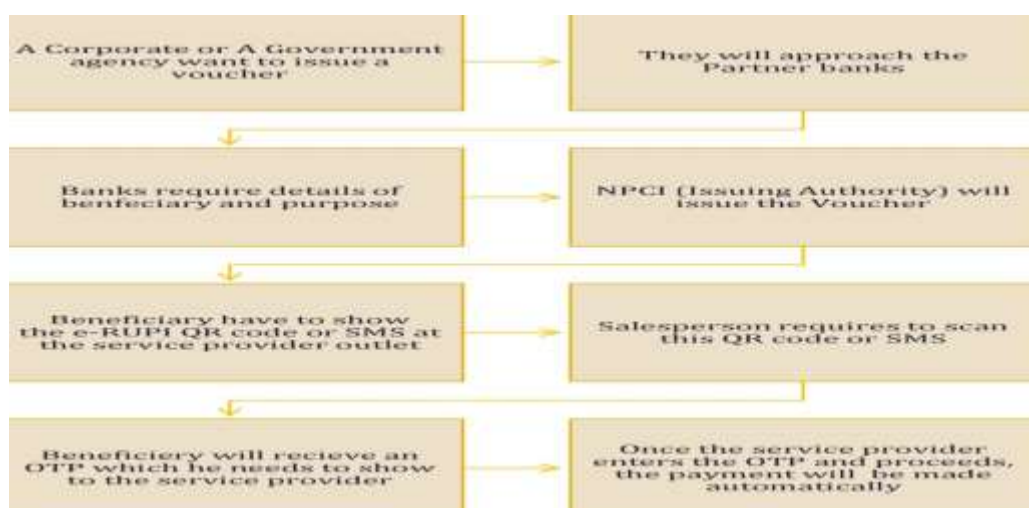
HOW DOES E-RUPI Work?

Beneficiaries scan redeem the voucher without a card, internet banking access or a digital payments app where a person can also use e-rupee without a bank account. Being a prepaid voucher, e-rupee would assure real time payments to the service provider. Beneficiaries are identified using their mobile numbers.

WHO CAN USE E-RUPI?

Private sector in addition to the Union Government & State Governments may use e- rupi payment system for the benefits of their employees or for the CSR initiatives. Any government agencies and corporation can generate e-rupee vouchers via their partner banks. This voucher is basically a digital voucher which a beneficiary gets on his phone in the form of an SMS or QR code. As per NPCI, eleven banks can help to issue e-rupi are Bank of Baroda, Union Bank of India, HDFC Bank, Kotak Mahindra Bank, Axis Bank, Canara Bank, ICICI Bank, Indusind Bank, Indian Bank, Punjab National Bank and State Bank of India.

Voucher Issuance and Redemption Procedure: The e-RUPI application is available on Google play store or Apple Store. The following is for easy understanding the process.



CBDC can be classified into two types, viz. General purpose or Retail (CBDC-R) and wholesale (CBDC-W). Retail CBDC (e-R) would be potentially available for use by all, viz., private sector, non-financial

consumers and businesses. It is the electronic version of cash primarily meant for retail transactions. It has direct liability of central bank and hence provides access to safe money with 24/7 availability offering real-time to near real-time payment settlement. Wholesale CBDC (e-W) is designed for restricted access to select financial institutions.

While Wholesale CBDC is intended for the settlement of inter bank transfers and related wholesale transactions, Retail CBDC is an electronic version of cash primarily meant for retail transactions which is restricted to use for only select financial institutions. It could transform settlement systems, making them secure and efficient.

FORMS OF CBDC:

CBDC can be structured as 'token-based' or 'account-based'. A token-based CBDC is a bearer-instrument like banknotes, meaning whosoever holds the token at a given point in time would be presumed to own them. In contrast, an account-based system would require maintenance of record of balances and transactions of all holders of the CBDC and indicate the ownership of the monetary balances.

Considering the features offered by both forms of CBDCs, a token-based CBDC is viewed as preferred mode for CBDC-R as it would be closer to physical cash, while an account-based CBDC may be considered for CBDC-W.

BENEFITS OF e-RUPI:

Some of the benefits of e-RUPI are:

- * The beneficiaries of the payment system need not have internet banking a smartphone, a card or even a bank account to avail of this services which will provide a major boost to inclusion to **widen the financial inclusion**.
- * The introduction of CBDC with conditional anonymity will boost cashless transactions and thus be a step towards **promoting a cashless economy**.
- * The CBDC can serve as a platform for **payment innovation** and provide diverse options to consumers. It is also free from credit and liquidity risks and hence removes barriers for firms to innovate new capabilities.
- * Unlike cryptocurrencies, CBDC is less vulnerable to volatility and instability, thus safeguarding individual rights to help **curbing money laundering**.
- * The introduction of CBDC will ease the pressure on the government in terms of printing, distribution and storage of currency, and also contribute to India's ESG goals by **reducing operational costs**.
- * Government securities can be settled using wholesale CBDC in India through a process known as delivery versus payment settlement which is helpful for **simplification of securities settlements**.
- * **Reducing Dependency on Dollar** through establishing Digital Rupee as a superior currency for trade with its strategic partners.

POTENTIAL CHALLENGES WITH IMPLEMENTATION:

The introduction of any new system in a vast market like India will entail some challenges. Some of them are:

- * **Ensuring consumer Privacy and wallet security:** The governance policy should make up for the lack of personal data protection regulations and be flexible enough to adapt to the dynamic scion-economic system. Robust data security systems and stringent data access rules must be examined.
- * **System scalability:** DLT (Distributed Ledger Technology) -based implementations are faced with potential scalability issues and performance concerns should be monitored with proper research and correct execution of transactions which is needed to data syncing.
- * **Data management and retention:** Absolute anonymity within transactions will offer little insight into the movement of CBDCs and payments trends. Hence, striking a balance between data utilization and consumer privacy is key to designing the right model.
- * **Accelerated adoption:** Policymakers should consider incentivising adoption of e-RUPI by not only end users but also intermediaries. Features such as programmability, offline modes, stability, language support, etc., must be incorporated to drive adoption among users in both urban and rural areas.
- * **Awareness and acceptability:** Establishing the right use and motivations for the masses to move away from bank accounts to CBDC wallets can be made through conducting awareness initiatives in the right forums. Example: Jan Dhan Yojana should be implemented in the case of CBDC wallets to make it mainstream and increase financial inclusion among the rural population.

STATUS OF e-RUPI SO FAR:

Under this digital platform eleven banks can help to issue e-RUPI. The government has provided platforms such as Unified Payments Interface to encourage digital payment adoption. Consequently the RBI has reported a two-fold increase in digital payments in India since 2018. In 2022, India registered a record INR 149.5 trillion UPI and card transactions. As per the India Digital Payments Annual Report, UPI clocked over 74.05 billion transactions in volume and INR 126 trillion in terms of value.

Technology is evidently evolving in parallel with the end user, mobile payments (app based) increased to 85% by March 2022 from 76% by March 2021 and cash withdrawal at ATM's was reduced from 24% to 8% in the same time period.

Central Bank Digital Currency or e-rupee worth Rs.16.39 crore is in circulation as of March 2023, as per data from RBI's Handbook of Statistics on the Indian Economy for FY 2023. 75 Digital Banking Units announced for transforming financial services.

LIMITATIONS AND WAY FORWARD:

In India, out of the nearly 141 crore population, 82.5 crore people have internet access. This means many Indians will not be able to use CBDCs due to connectivity unavailability. CBDC ecosystems may be at similar risk for cyber-attacks as the current payment systems are exposed to, so that the cyber security

considerations need to be taken care.

India is one of the largest economies in the world with a large and diverse population, so there are varied expectations related to retail cross border remittances, Micro finance. Suitable for offline transactions, wholesale inter bank settlements, money-market etc.

Impact of CBDC on global trade would depend on the current global geopolitical situation and the willingness of at least the BRICS nations to move away from US dollars as the primary instrument for global trade so that there could be benefits for India's global trade. India is one of the 114 countries which is exploring digital currency paving way for the alternative payment modes through CBDC can ensure financial inclusion. This move can definitely help the intermediaries to get their benefits which are announcing by the governments for various schemes.

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