

A Study on Awareness regarding Digital Rupee in Mumbai

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ABSTRACT

The concept of a Digital Rupee has been gaining attention in India as the country explores the possibility of issuing its own digital currency. The Digital Rupee is seen as a way to provide a more efficient, secure, and inclusive financial system, especially for those who are currently excluded from traditional banking facilities. Research on the Digital Rupee is focused on understanding its potential benefits and challenges, including security, privacy, and regulatory issues. The data for this study was collected from 100 respondents by an online survey using a questionnaire. The research was undertaken to find out awareness level of people regarding digital rupee. The Reserve Bank of India has set up a panel to study the feasibility of issuing a Digital Rupee and to evaluate the risks and benefits associated with this concept.

Keywords: *Digital Rupee, Awareness, Benefits*

1. INTRODUCTION

The Digital Rupee (e), also known as the eINR or E-Rupee, is a tokenized digital representation of the Indian Rupee that will be released as a central bank digital currency by the Reserve Bank of India (RBI) (CBDC). A high reliability committee (IMC) was created in 2017 under the Department of Economic Affairs in the Ministry of Finance (MoF) to advise on the administration and use of virtual currencies in India, and it advocated a digital version of fiat money based on Distributed Ledger Technology (DLT). Despite the lack of regulatory recognition for cryptocurrencies, the RBI began preparing for future CBDC growth. On December 16, 2020, the RBI declared a regulatory sandbox to test next-generation cross-border payment technologies in order to acquire field test data and proof of advantages and hazards to the financial ecosystem. On January 29, 2021, the Indian government proposed a bill to prohibit cryptocurrency trading and investments while granting the RBI legal authority to develop a CBDC, dubbed the "programmable digital rupee," based on the knowledge attained from ability to handle Unified Payments Interface (UPI), Immediate Payment Service (IMPS), and Real-time Gross Settlement (RTGS) for distribution and validation purposes.

The launch will take place in two stages. The digital rupee has been released for wholesale transactions, i.e. big transactions, in the first trial phase. The RBI will follow up on the wholesale e-rupee pilot with a comparable retail trial later.

The first nation to introduce CBDC, which covered the whole country, was The Bahamas. Following a successful 2019 trial on the island agglomeration of Exuma, the Central Bank of the Bahamas released the Sand Dollar in October 2020. According to CBDC Tracker, the Sand Dollar's key aims were to reform and simplify their country's financial system, reduce service delivery costs, promote transactional efficiency, and enhance market inclusion.

Nigeria established a CBDC, eNaira, in October 2021, becoming the first nation in Africa and the second nation overall. The eNaira may be stored in a digital wallet and used for both in-store payments and money transfers. It like coins or cash, is a CBN liability. It is built on the same Blockchain as Bitcoin and Ethereum. However, there are significant distinctions. According to an IMF assessment, the eNaira has strong central bank access rights controls and, unlike crypto-assets, is not a financial asset in and of itself but a digital representation of a national currency that takes its value from the actual naira.

The Bank of Russia stated in February 2022 that early testing of the CBDC, commonly known as the "Digital Ruble," had been completed. The Bank of Russia intends to launch the digital ruble in the next years. According to Russia's most recent monetary policy update, the government will begin connecting all banks and lending institutions to the digital ruble network in 2024.

According to the Atlantic Council, CBDC is a research compound in the United States. The Joe Biden government signed an Executive Order in March 2022 to foster responsible innovation in the sphere of digital assets. According to the US Fed, a CBDC would provide a type of digital money that is a direct obligation of the Fed, securely bootstrapped to the US currency and government.

Iran's central bank said on September 22 that it intends to begin a prototype "digital rail" initiative in the following days. According to an official press release from the Central Bank of Iran (CBI), the goal of adopting the crypto rail is to convert banknotes into programmable entries. According to CBI, security is also a major consideration in the creation of the crypto trial.

The RBI thinks that by adopting the digital rupee, it would be able to address issues with current physical currencies and cross-border transactions. Cross-border money transfers and conversion into foreign currency is time-consuming and costly. With the introduction of the digital rupee, fast cross-border money transfers are expected to improve bank cash management and operations. Cash placement and monitoring are difficult in India. CBDC may tackle privacy and fix it in a non-threatening manner, hence reducing the desire for cash. The government will save money on operations, printing, distribution, and storage, advancing the government's objective of a cashless economy.

2. REVIEW OF LITERATURE

According to Shreya Handa (2020): In India, digital payments have reached an all-time high in the last three quarters, and there is an unparalleled aversion to the usage of cash in general. Many people assume that currency should be as simple to transfer as email. A rising number of publications question whether the present financial system, and even banks, have now become outmoded. It demonstrates new form of payment system which will help in defining proper usage and track of money spend. Sure, the use of digital currency, such as a digital rupee, can potentially solve many problems in the Indian economy. One of the key advantages is that it allows for better tracking and monitoring of transactions, which can reduce tax evasion and counterfeiting. It also creates a clear and traceable record of transactions which can aid in combatting money laundering. Additionally, advanced analytics such as machine learning and big data can be used by regulators and government authorities to detect and prevent fraud and other illegal activities. This can lead to more efficient regulation and a more secure financial system. The findings reveal that the Reserve Bank of India (RBI) has been exploring the potential of implementing a Central Bank Digital Currency (CBDC) and utilizing Distributed Ledger Technology (DLT) to enhance the current financial system in India. This shows that India is interested in adopting new technologies to improve its financial systems and payment landscape.

However, it's also important to consider that the adoption of digital currency could present challenges.

According to D Priyadarshini & Sabyasachi Kar(2022), the introduction of Central Bank Digital Currencies (CBDCs) as legal tender by various central banks, including the Reserve Bank of India (RBI), raises important considerations such as the potential effects on monetary and national sovereignty, and development. In the context of India, where digitalization is rapidly growing, it is crucial for the RBI to address potential risks, establish appropriate infrastructure and regulations, and collaborate with other countries to successfully implement a CBDC.

According to Bibhu Dash et.al (2022), smart banking, which is the use of technology such as AI and ML, has greatly enhanced the efficiency, security, and cost-effectiveness of the financial sector. The rise in unstructured data from sources like social media and online banking has also provided financial institutions with valuable insights for customer analytics. It also highlights the socioeconomic and technical challenges that policymakers must consider when changing monetary policies. Furthermore, the paper discusses how 5G technology can enhance peer-to-peer transactions and open up new market opportunities through the automation of various use cases with blockchain. The findings of the study The adoption of smart banking in India has the potential to bring many benefits, however, it is crucial for the government to have a comprehensive plan in place for digital governance and risk management before moving forward.

According to Pawan Kalyani (2016), CBDCs, Central Bank Digital Currencies, have gained importance in the debate of economy digitalization, including the fast changes in the payments realm and the transformation of the concept of money. They are perceived as the next phase in the evolutionary journey of fiat money, from shells and cowries, to coins and paper money, and now to digital forms of fiat currencies. When discussing the implementation of CBDCs, there are several important considerations, including issues related to monetary sovereignty, national sovereignty, and developmental impact. It specifically examines the growing trend of paperless e-currency transactions worldwide and in the Indian market, where many services and products are available online and accept online payments. However, it is not clear how many people are actually using these methods to make payments. This study gives light on if the digital rupee is not adopted by a sufficient number of users, it will not only compromise the objectives of its creation, but also call into question the rationale behind using public resources to launch a CBDC. Furthermore, it can also pose a reputational risk for the central bank. Also,

this institutional transformation in India has a long road ahead of it, and we need to assure that it adds to rather than destabilizes our development process.

According to Barry Eichengreen et.al.(2022), there are various perspective regarding introduction of digital rupee in India. Transactions using a CBDC may also be less expensive than using credit or debit cards, as the bank would not be providing and charging for additional services such as fraud protection, overdraft protection, and credit lines. Additionally, transactions using a CBDC may be less expensive than bank deposits or debits, as they would not go through the costly interbank payment system. The findings demonstrate that India should also consider the possibility of issuing a CBDC, as many other central banks and governments around the world are exploring the option. While India's interest in CBDCs may have come later compared to other countries, the timing of its pilot project announcement is inline with other nations, showing that it is taking the possibility of issuing a CBDC seriously. Furthermore, the study finds to make a well-informed decision, India should form expert groups to study and make recommendations on these factors and make their findings public, as is typical for other initiatives. The Indian government agencies can still gain valuable insights from the discussions and studies of CBDCs, even if India does not decide to issue its own. By putting in place the necessary regulations, they can learn more quickly about the technology and its potential uses, which will help them to make more informed decisions if they decide to move forward with a CBDC in the future.

3. OBJECTIVE OF STUDY & RESEARCH METHODOLOGY

The object of study is to find out the awareness level of people regarding digital rupee.

Type of Research: It is an example of descriptive research. The method incorporated is Survey.

Source of Data: Primary and secondary data form the base of research, with primary data acting as the solid foundation for the same.

Sample Size: Total 100 respondents are selected on convenience sampling basis. The study was based on response received from people staying in the Mumbai city.

Statistical Tools used: One sample Chi Square Test & Percentage Analysis. Level of Significance: Alpha = 0.05

Limitation of the study: The respondents reside in Mumbai. The results of this study need not necessarily apply to other similar studies.

4. ADVANTAGES OF DIGITAL RUPEE

Mitigating Risks: Many governments are considering issuing their own national cryptocurrency as a way to control the growth of digital money and reduce risks associated with private cryptocurrencies. According to the International Monetary Fund, this would provide greater oversight and regulation of the market. Additionally, it is important for cryptocurrency exchanges to provide clear and comprehensive information about the products and risks involved to customers before they make investments. This can help to mitigate potential risks and protect investors.

Negative Interest Rates: Negative interest rates are a monetary policy tool used by central banks to encourage spending and stimulate economic growth during difficult times. However, traditional bank deposit with negative interest rate may prompt people to withdraw their money and hold it in cash, which doesn't help the economy. Central Bank Digital Currencies (CBDCs) could be a solution for this, as they allow central banks to set a negative interest rate on digital wallets holding CBDCs, discouraging hoarding and promoting spending to aid economic activity.

Encourages Cashless society: The government's adoption of digital currencies can facilitate a shift towards a cashless society. This can have several benefits such as reducing tax fraud and making it easier for individuals to access financial services like remittances, loans, insurance, stocks, and smart contract-based financial products. However, it is important to ensure that necessary precautions are taken to safeguard individuals' privacy and financial data. Additionally, a cashless society can also lead to cost savings in printing and distributing physical currency and aid in tracking illegal activities like money laundering and terrorist financing.

Reduce volatility: The Digital Rupee, as managed by the Reserve Bank of India (RBI), can offer a level of security and oversight that may not be present with other digital currencies, such as cryptocurrencies. This can reduce the risk of mishandling or illegal use of the currency.

5. DATA ANALYSIS & HYPOTHESIS TESTING

Figure 1: Gender of Respondents

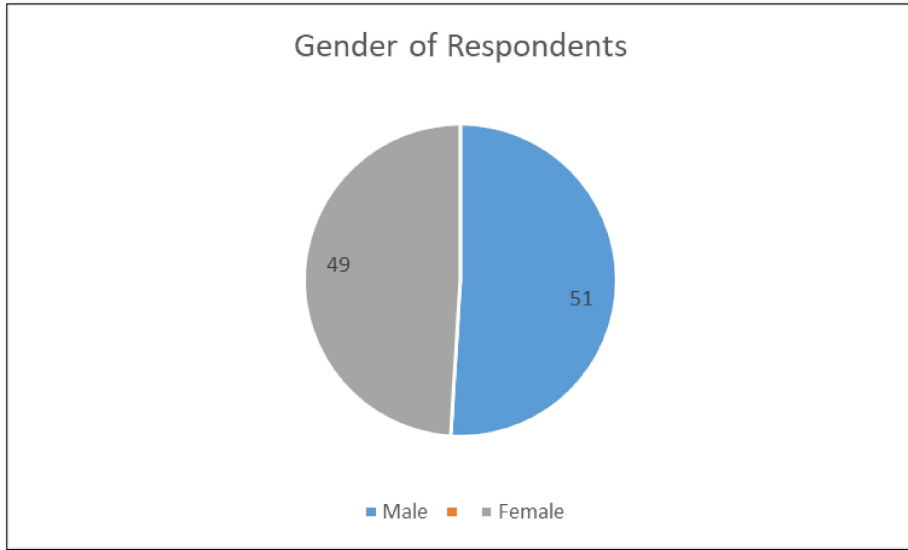
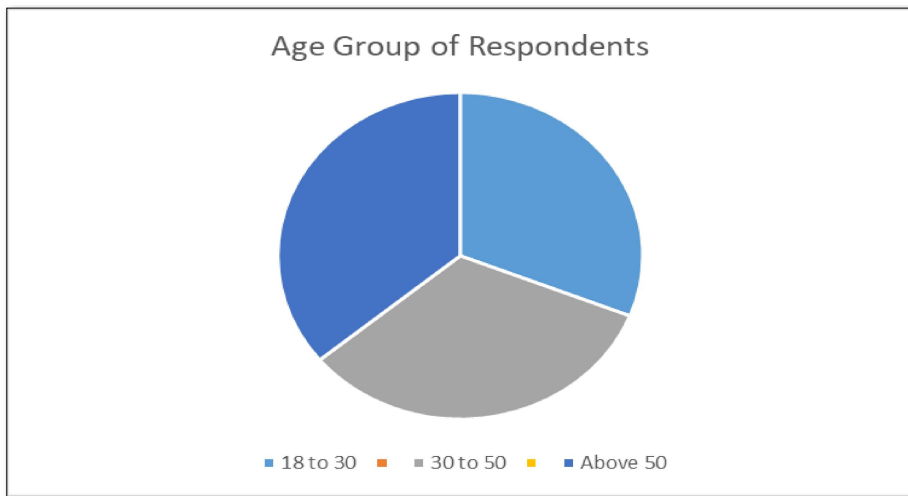


Figure 2 – Age of Respondents



From Figure 1 & Figure 2, we see that out of 100 responses, 51 are received from male, the rest from female. The age group '18 to 30' received 31 responses, age group '30 to 50' received 33 responses and the age group 'Above 50' received 36 responses.

6. HYPOTHESIS OF STUDY

H0: Gender has no association with awareness regarding digital rupee. H1: Gender influences awareness regarding digital rupee.

Results of Chi Square Test

The chi-square statistic is 3.2413. The p-value is .071804. The result is not significant at $p < .05$. We therefore accept the null hypothesis and conclude that Gender has no association with awareness regarding digital rupee.

7. CONCLUSION

Digital rupee is promising owing to numerous benefits outlined above. However, to conclude, it is wise to point out certain drawbacks that digital rupee can face, in order to ensure complete and holistic understanding of the research problem. They are summarized below:

- **Lack of Privacy:** CBDCs or Central Bank Digital Currencies may require certain personal information for the purpose of identification and verification. This may include various forms of identification such as fingerprints, ID card, passport or others. Furthermore, the use of CBDCs can also create a digital record of transactions, which can include purchase made for goods and services like food, accommodation, and transportation, even when the device is not in use.
- **Danger to financial threat:** If the Reserve Bank of India (RBI) were to offer interest rates on digital rupee, it may lead to competition with the traditional banks. This could cause a decline in deposits for banks which can impact their ability to lend and provide other financial services. A decline in deposits can threaten the stability of the financial sector as banks rely on deposits as a source of funding.
- **Regulation and control of Government:** The Digital Rupee's association with government control can be a potential disadvantage, as it can interfere with the monetary policies and may have an impact on them. If CBDCs are seen as a substitute for traditional currency, it can weaken the central banks' power over inflation. Governments may have to adjust their macroeconomic policies in order to keep up with the competition, this could include incentives such as tax exemptions for those who use the digital rupee.
- **Potential cybersecurity threat:** The use of digital currencies brings up the concern of cybersecurity, particularly in a country like India where security threats are prevalent. The Mt Gox bankruptcy case, which was a digital currency exchange, is an example of the risks involved and has caused unease among investors who had their assets stored on the site. To protect users from cyber threats it's essential for the government, central bank and financial institutions to implement adequate security measures.

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