

Perception about newly launched CBDC by RBI in South Mumbai region

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Abstract:

World is going through rapid transformation in financial sector reforms along with dynamic innovation changing the way financial transactions are carried out. There were days when people used to consider digital payment methods & digitization of the economy with reference to the Indian context an impossible affair. The one big move in the series of digital innovations after UPI is CBDC. It refers to Central Bank Digital Currency. CBDC is an important tool in the future digitized economy and will play a vital role in providing a competitive advantage to countries with strong technological infrastructure. The digital wave and growing crypto trend were also key factors forcing central banks to explore this horizon. The growing preference of investors in crypto created various concerns for central banks, like funding illegal activities, development of a parallel economy, financial instability, and many more. Across the globe, approximately nine countries have already launched CBDC, out of which eight countries are located in Caribbean. Nigeria is the first country in Africa to launch CBDC in the form of e-Naira. Apart from this, more than 100 countries are exploring the opportunities to launch CBDC in their country. India, one of the fastest developing economies globally, has also launched CBDC at a pilot stage to study its impact and the benefits it can offer to the Indian economy in the coming years. Reserve Bank of India has launched a pilot for wholesale transactions on 1st November 2022 and for retail transactions on 1st December 2022. A retail pilot is carried out in cities like Mumbai, Delhi, Bengaluru and Bhuvneshwar. Then subsequently adding different cities of the country. This paper looks forward to addressing people's perception of CBDC in the South Mumbai region.

Keywords: Digital Payment, UPI, BHIM, Online Payments, NPCI, Payment System

Introduction:

CBDC is a fiat currency in an electronic form issued by a central bank. This concept emerged in prominence with the growth of private digital currencies and cryptocurrencies. CBDC is an ideal replacement for legal tender status as it is backed by central bank assets; it is a digital reply by central banks to private currencies and digital currencies. There are various concerns in front of central banks, like concerns pertaining to the usage of CBDC by elderly people, creating trust amongst users, cyber-attacks, the privacy of users, accumulation of sensitive information, etc. CBDC will help to promote a formal economy and financial inclusion, reduce settlement risk, diversified payment options, etc.

World is moving from hard cash to digital cash, and the secured use of newly developed technology like blockchain management is a remarkable milestone. People habitually use hard cash in a country like India as the predominant psyche for executing transactions. Trust and safety elements regarding physical cash have been more acceptable to people over decades. Technological development like UPI has transformed people's perception of digital transactions. It can be expected that along with such technology, CBDC will also be well received by the people. It is very important for the central bank to create an environment inducing such acceptance. Extensive use of technology has always been subject to various kinds of threats like phishing, cyber-attacks, etc. It has a huge impact on the perception of the users in adopting the transformation. It has been observed a majority of countries that have adopted or who are exploring options for implementing CBDC also have concerns about propensity of cyber-attacks on a larger scale. It can create panic in the financial system as all the activities are related to the economy.

Objective of Study:

- To study the perception of people in South Mumbai region about CBDC.
- To study and analyze the perception of people regarding the risk of cyber-attacks.

Methodology:

- While conducting research for a detailed study, primary data from 62 respondents from South Mumbai were received based on the survey conducted using Google forms.

- The sources of secondary data contain data from various research work conducted by various people & various websites.

Limitations of Study:

- The study mostly depends on the availability of true and adequate data provided by the respondents
- True & adequate data from the secondary sources
- CBDC is a relatively new concept and still at the pilot stage of implementation by RBI; hence, user experience and knowledge about the subject were available in limited numbers along with the time constraint.

Hypothesis:

H₀ : There is no significant difference between various age groups and the perception pertaining to the risk of cyber-attacks associated with CBDC.

Review of Literature:

- **Linda M. Schilling (2019):** The paper extensively covers the discussion on the risk involved with CBDC and addresses privacy and information centralization. CBDC is a structure that is more centralized than the current system of central banks, which will be more prone to cyber-attacks. Accumulation of sensitive information may harm the privacy of users, along with mention of some of the previous incidences of Equifax, J.P. Morgan chase etc. It also discusses issues pertaining effect of monetary policy and political influence on central banks. Central Banks are prone to attacks from inside and outside. It also highlights the conflict of interest with the Central Bank's stability mandate of stability of currency and target inflation.
- **Peterson k. Ozili (2022):** In his paper on "Central bank digital currency in Nigeria opportunity and risks," extensively regarding the experiences of the first African country to issue CBDC known as e-naira. It suggests that it will present Nigeria with improved monetary policy transmission, efficient payment, convenience, etc. It also highlights risks like digital illiteracy, propensity of cyberattacks, data theft, etc. It also highlights changing role of banks in full-fledged. CBDC based economy.

- **David Kuo Chuen Lee, Liyan & Yu Wang (2021):** Their paper extensively discussed the global perspective on CBDC and also highlighted the need to design CBDC to balance the benefits and risks associated with it. The major benefit of adopting CBDC is to promote financial integration, improving transaction efficiency, security and decreasing cost of cross border payments. It is also suggested that underdeveloped financial systems will be able to receive more benefits from global expansions. CBDC is an answer by central banks to counter the mass adoption of privately issued digital currency as it is backed by trusted governments. CBDC will ensure a more accurate representation of economic activities which are not forming part of national accounts statistics. The paper also counters risks such as technological, economic, ethical and legal aspects associated with the adoption of CBDC. Education and proper regulation are key to good CBDC design with regional cooperation and a holistic approach. It also covers an extensive idea of China's experience with the development of CBDC. Development of global financial and monetary market development is important for the development of CBDC in future. Inclusivity and decentralization are important factors to be considered for future direction of CBDC.

Views on the Topic:

While conducting research, it was observed that the implementation of CBDC will have to be carefully examined before launching it. While India is undergoing a process of conducting a pilot study for the implementation of CBDC, it is really important to understand people's perceptions of CBDC regarding the benefits and risks associated with it. In almost the majority of studies propensity and risk of cyber-attacks was found to be a major concern of central banks as well as the people of the country.

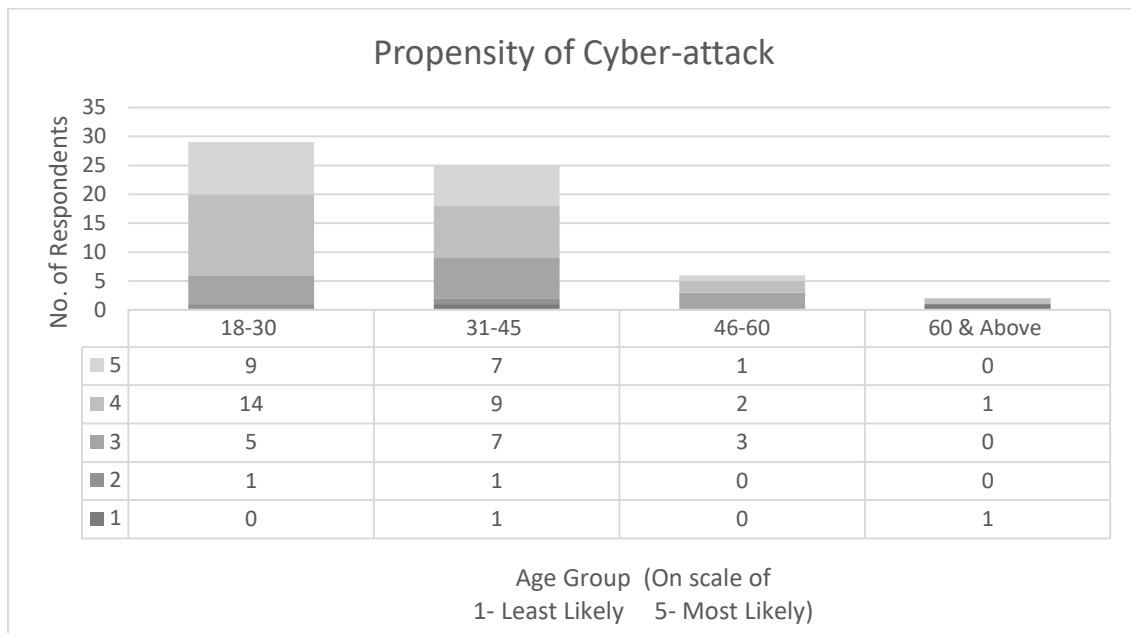
In order to study, what is people's perception of the newly launched CBDC by RBI in South Mumbai region. In total, there were 29 respondents participated between the age group of 18-30 years out of total 62 respondents. Least participation was observed from respondents between the age group of 60 years & above.

Table 1: Perception About Newly Launched CBDC by RBI In South Mumbai Region

Age Group	No. of Respondents
18-30	29
31-45	25
46-60	6
60 & above	2
Total:	62

(Source: Primary Data)

In the overall scenario, respondents were asked to rate on a scale of 1 to 5 about propensity of having cyber-attacks while adopting and using CBDC. It was observed that 7 of respondents from the age group of 18-30 years and 31- 45 years of age replied on a scale of 3 that it would help to curb activities like fraud and money laundering.



(Source: Primary Data)

In the overall scenario, respondents were asked to rate on a scale of 1 to 5 about propensity of having cyber-attack while implementing CBDC. It was observed that 14 of respondents from the age group of 18-30 years replied on a scale of 3 that it would have propensity of cyber-attacks. Overall, 26 respondents across different age groups responded on a scale of 4 regarding propensity of cyber-attacks.

ANOVA

Rate the following threat on a scale of 1-5. Where 1- Least likely & 5- Most likely to impact the country? [Propensity of cyber-attacks]

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	5.272	3	1.757	1.972	.128
Within Groups	51.695	58	.891		
Total	56.968	61			

(Compiled on the basis of Primary Data)

The table represents the ANOVA analysis to determine the influence of the Age Group on the perception pertaining to risk of cyber-attacks associated with CBDC. The significant value 0.128 determines that there is a significant influence of age groups on the perception pertaining to risk of cyber-attacks associated with CBDC. Thus, the null hypothesis that Age does not significantly influence perception pertaining to risk of cyber-attacks associated with CBDC has been accepted. CBDC is a big transformation world is going to witness, but it is going to be a bigger challenge for all the central banks to address the concerns pertaining to propensity of cyber-attacks.

Conclusion:

It can be clearly seen that across different age groups, there is a common concern pertaining to propensity of cyber-attacks. Across the globe, CBDC development is being discussed. Many countries working out on the development of CBDC for bringing about technological advancements have also been concerned about various challenges in the coming time. Amidst all concerns, the propensity of cyber-attacks is one of the challenges that that will be a big hindrance to the acceptance of CBDC by the country's citizens. It is one of the biggest challenges in front of all central banks. While India is also exploring options for implementing CBDC, RBI must take active steps in developing technological advancements and use various awareness initiatives for the users to be fully prepared before adopting the transformation. Users also need to be cautious while using CBDC; negligence will not contribute to this transformation journey.

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