



# A Study on Understanding Public Perceptions of Central Bank Digital Currency: A Qualitative Exploration of Benefits, Concerns, and Potential Impact

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**Abstract** – The present study aims to delve into the perception of the youth and working class of India about CBDC- a new financial technology backed by the Reserve Bank of India. The study will help to understand the various perspectives and insights about this novel technology and thus try to comprehend and infer on its various implications, possible benefits, drawbacks and changes it would bring in place due to its adoption. This study sheds light on the application of concepts like centralisation, blockchain technology and smart contracts, which are integrated into it.

**Keywords** – Digital money, Currency centralization, Peer to peer transactions, Blockchain technology, working population

## I. INTRODUCTION

The financial world is on the cusp of a significant transformation with the emergence of Central Bank Digital Currencies (CBDCs). Unlike crypto currencies, CBDCs are digital versions of a nation's existing currency, issued and controlled directly by its central bank. This innovation begs the question: why are CBDCs coming into existence, and what makes them potentially necessary and convenient for the public?

### 1. The Rise of CBDCs: A Response to a Changing Landscape

Traditional cash, while familiar, poses challenges in an increasingly digital world. Physical currency can be cumbersome to carry, expensive to maintain, and susceptible to theft or loss. CBDCs address these issues by offering a secure and efficient digital alternative. Furthermore, the rise of private digital currencies like crypto currencies has spurred central banks to explore CBDCs. While crypto currencies offer some benefits, their volatility and lack of central oversight raise concerns about financial stability. CBDCs aim to provide a more stable and regulated digital currency option.

### 2. Potential Benefits and Convenience for the Public

CBDCs hold the promise of several advantages for the public:

#### Increased Efficiency

Transactions with CBDCs could be instantaneous and secure, potentially revolutionizing the speed and ease of everyday payments.

#### Financial Inclusion

CBDCs could offer access to a secure digital payment system for those who lack traditional bank accounts, promoting financial inclusion for a wider population.

#### Reduced Costs

By streamlining transactions and potentially lowering fees associated with cash handling, CBDCs could lead to cost savings for both individuals and businesses.

#### Enhanced Security

Central bank oversight could provide a layer of security compared to some private digital currencies, potentially reducing the risk of fraud and theft.

5. Exploring Public Perceptions

While CBDCs offer potential benefits, it's crucial to understand public perceptions. This research delves into the qualitative aspects of public sentiment surrounding CBDCs. By examining people's concerns, hopes, and expectations, the study aims to bridge the gap between the technical aspects of CBDCs and the real-world experiences of the public. This exploration will move beyond simple "yes" or "no" answers, revealing the underlying thought processes and motivations that will ultimately influence the adoption and success of CBDCs. The following sections of this paper will explore these themes in greater detail, examining the perceived benefits, concerns, and potential impact of CBDCs on the public. Through this comprehensive investigation, the study aims to contribute valuable insights for policymakers, financial institutions, and the public at large as we navigate the evolving landscape of CBDCs.

## II. REVIEW OF LITERATURE

A paper titled as 'Central bank digital currency Motivations and Implications' aims to identify whether central bank should issue digital currency that could be used by the general public. The research finds that issuing CBDC may increase competition in retail payments but may also lead to banks offering better services to retain customers. An interest-bearing CBDC could lead to less reliance on banks and increased volatility in the financial



system. Overall, the design of CBDC has trade-offs and central banks should proceed cautiously. (Walter Engert, 2017)

A study titled as ‘A global perspective on central bank digital currency’ aims to identify whether CBDC will be the primary tool in the future digital economy, and how countries that are conversant with the technology will have a competitive advantage. The research finds that CBDC development is crucial for global competitiveness in digital finance. Design of CBDC should consider national goals, economic function, and adapt to future needs. Balancing central bank control with user needs and leveraging benefits of blockchain technology are key for CBDC success. (David Kuo Chuen Lee)

A paper titled as ‘The Influence of Understanding Financial Literacy and Community Readiness on the Use of Central Bank Digital Currency (CBDC)’ delves into exploring the public knowledge regarding readiness in facing challenges of use (CBDC). The research suggests both digital literacy and entrepreneurial skills are crucial for success in the digital age. Entrepreneurship education alone is insufficient, and strong digital skills without business knowledge may not translate to action. Individuals with both skillsets are more likely to leverage digital opportunities and become productive entrepreneurs. (Cindy Cintania Amarta)

A research paper titled ‘Public perception of the “Digital Rupee” in India’ aims to analyse the public perception by applying sentiment and statistical analysis methodologies on the data collected. The findings of the research are that CBDC (Digital Rupee) can improve payment efficiency and financial inclusion, but may also reduce bank deposits and raise privacy concerns. (Kulkarni, 2022)

### Objectives of the Study

- To identify the level of public awareness and understanding of CBDCs.
- To investigate the perceived impact of CBDCs on various aspects of everyday life.
- To explore the perceived benefits of CBDCs from the public perspective.

## III. RESEARCH METHODOLOGY

### 1. Type of Research

Descriptive research design will be used which will prioritize understanding people’s experiences and opinions.

### 2. Sampling Method

Convenience sampling method will be used.

### 3. Target Population and Sample Size

Students and individuals from working class who are familiar with digital payment platforms. Age group: 15 to 65

## 4. Area of Study

This research will focus on how residents of Mumbai perceive CBDCs.

## 5. Data Analysis

Graphs and tables will be used to organize the data to display it in a way that is easy to understand and remember. Appropriate test will be used for hypothesis testing.

## 6. Expected Result

This research is expected to uncover a nuanced understanding of how residents in Mumbai perceive CBDCs. It will identify themes around potential benefits like financial inclusion and efficiency, along with privacy and government control.

## Limitations

- The sample size of 71 is a limitation. The findings may differ with a higher sample size for the population.
- The study is limited to Mumbai Suburban area.
- Focusing solely on a tech-savvy demographic might under-represent the concerns of those less familiar with digital technology.
- Participants might lack a deep understanding of CBDCs and their functionalities. This could limit the depth and accuracy of their perceived benefits and concerns.

## IV. DATA ANALYSIS AND FINDINGS OF THE STUDY

### 1. Age Group Analysis

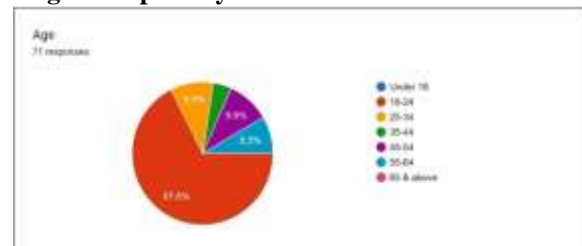


Figure 1: Age group Analysis

### Interpretation

The above graph shows that 67.6% respondents are of the age group 18-24, while 9.9% respondents are of the age group 25-34. Whereas 4.2% of the respondents are of the age group 35-44 and 8.5% of the respondents are of the age group 55-64.

### 2. Gender Analysis

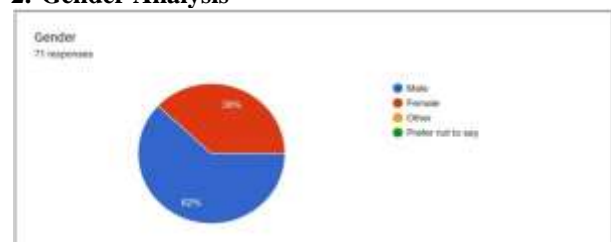


Figure 2: Gender Analysis



**Interpretation:** The above graph shows that 62% respondents are male whereas 38% respondents are female.

### 3. Occupation

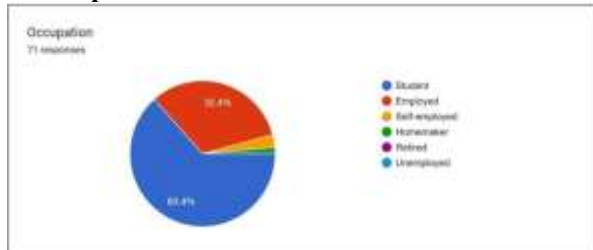


Figure 3: Occupation

**Interpretation:** The above graph shows that 63.4% respondents are students, 32.4% are employed, 2.8% respondents are self-employed and 1.4% respondents are homemakers.

### 4. Familiarity

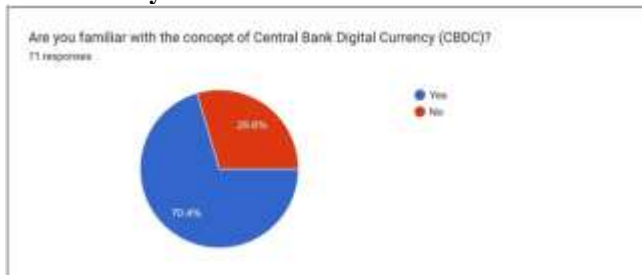


Figure 4: Familiarity

**Interpretation:** 70.4% respondents are 'familiar' with the concept of CBDC and 29.6% respondents are not familiar with the concept of CBDC.

### 5. Knowledge Pertaining to Digital Currencies and Their Functionality



Figure 5: Knowledge Pertaining to Digital Currencies and Their Functionality

**Interpretation:** 29 respondents have moderate knowledge regarding CBDC's and their functionality, followed by 13 people who have relatively moderate knowledge, followed by 15 and 12 respondents who have relatively higher knowledge levels. Only 2 respondents are found to be beginners.

### 6. Perception

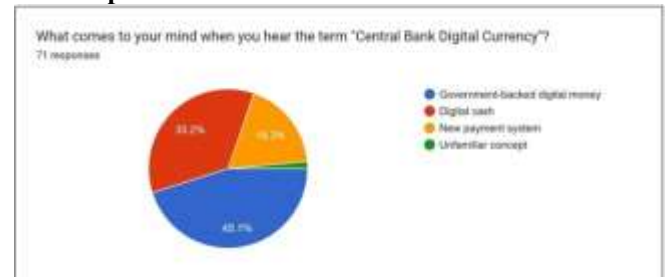


Figure 6: Perception

**Interpretation:** 45.1% of the respondents perceive CBDC as 'Government-backed digital currency', followed by 35.2% of the respondents who perceive it as 'Digital Cash'.

Whereas 18.3% of the respondents think of it as a 'New Payment System' and the rest 1.4% are unfamiliar with the concept.

### 7. Analysis of CBDC's Influence on the Overall Economy

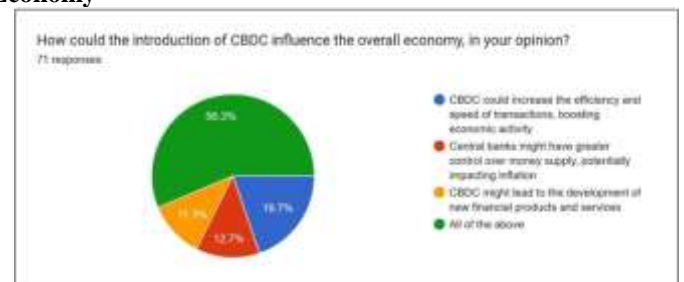


Figure 7: Analysis of CBDC's Influence on the Overall Economy

**Interpretation:** 56.3% of the respondents have chosen 'All of the above', followed by 19.7% who believe that 'CBDC could increase the efficiency and speed of transactions, boosting economic activity'.

### 8. Frequency of Use of Digital Payment Platforms

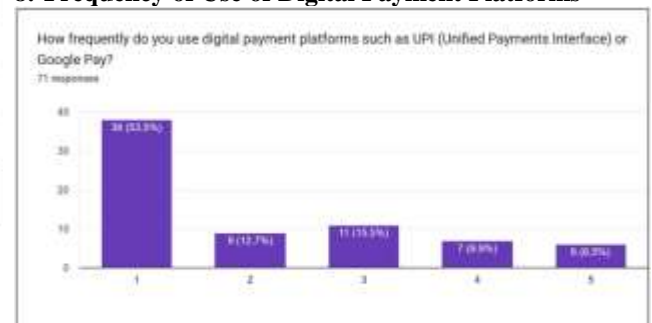


Figure 8: Frequency of Use of Digital Payment Platforms

**Interpretation:** 38 respondents frequently use Digital Payment Platforms.



### 9. Analysis of change in consumer behaviour/spending patterns

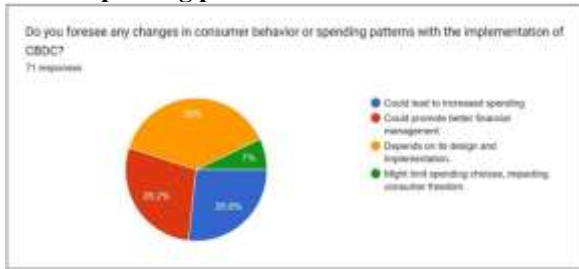


Figure 9: Analysis of change in consumer behaviour/spending patterns

**Interpretation:** 38% of the respondents chose ‘depends on its design and implementation’, 28.2% of the respondents chose ‘could promote better financial management’, 26.8% of the respondents chose ‘could lead to increased spending’, whereas 7% of the respondents chose ‘might limit spending choices, impacting consumer freedom’.

### 10. Analysis of willingness to use CBDC for financial transactions

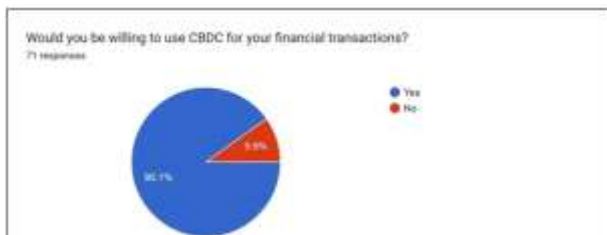


Figure 10: Analysis of willingness to use CBDC for financial transactions

**Interpretation:** 64 respondents are willing to use CBDC for their financial transactions, whereas 7 people are not willing to use it for their financial transactions.

#### Hypothesis Testing

Chi-square Test for Independence

- **H0**= There is no relationship between familiarity with the concept of CBDC and likelihood of being used in the near future.
- **H1** = There is a relationship between familiarity with the concept of CBDC and likelihood of being used in the near future.

Table 1: Chi-Square Hypothesis Testing

	Familiar	Unfamiliar	Total
Likely to use CBDC	64	0	64
Not likely to use	0	7	7
	64	7	71
	19.62	Chi-square	
	1	Df	
	<0.001	p-value	

To test the above hypothesis, Chi-square test is applied. The result shows that Chi-square value is 19.62 and p-value is <0.001. Hence, we reject the null hypothesis.

Therefore, there is a significant relationship between familiarity with the concept of CBDC and the likelihood of it being used in the near future.

### V. CONCLUSION

The study concludes that public perceptions of Central Bank Digital Currencies (CBDCs) are characterized by a mix of cautious optimism and a thirst for knowledge. While acknowledging the limitations inherent in qualitative research, the findings illuminate a public intrigued by the potential benefits that CBDCs could offer. Citizens envision a future empowered by faster, more secure transactions, with the possibility of CBDCs streamlining everyday payments and financial interactions. The research also highlights the potential for financial inclusion, bringing those who are currently unbanked into the formal financial system and fostering a more equitable economic landscape. Furthermore, the public perceives potential cost savings associated with CBDCs, which could benefit individuals and businesses alike. This exploration serves as a springboard for further research and open dialogue. By fostering a deeper understanding of public anxieties alongside these aspirations, policymakers and financial institutions can work towards responsible development and implementation of CBDCs. Addressing concerns about privacy, security, and potential disruptions to the existing financial ecosystem will be crucial in building public trust. A collaborative approach that incorporates public sentiment can pave the way for a future where CBDCs not only address these concerns but also fulfill their promise of a more efficient, inclusive, and secure financial system for all. Ultimately, this research underscores the importance of ongoing public engagement as CBDCs evolve from possibility to reality.

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