

Perception of Digital currencies among the Indian Diaspora

Vrinda Bansal

Student, Jayshree Periwal International School, Jaipur

Abstract

This research paper delves into the perceptions surrounding digital currencies among individuals, aiming to elucidate attitudes towards their potential impact on traditional currency systems. A meticulously designed questionnaire was administered to 43 participants, encompassing a diverse range of demographics. The findings reveal a prevailing sentiment among the younger generation, foreseeing a substantial shift towards digital currencies supplanting traditional forms by 2040. While optimistic about the transformative potential of digital currencies, participants voiced concerns regarding security implications inherent in decentralized systems. Their insights provide valuable perspectives on the evolving landscape of financial technology and underscore the need for comprehensive approaches to address security challenges in the adoption of digital currencies.

Keywords: Digital Currency, Economy, Fraud risks, Decentralization

Introduction

As politicians indicated that a clampdown on cryptocurrencies was coming Nobel prize-winning economist Robert Shiller hailed bitcoin as a “really clever idea” at the World Economic Forum in Davos, although he was impressed with the technology behind it, he was concerned that it had “gone viral as a currency”.¹

Digital currency or digital money is a form of currency that exists only in digital or virtual form. It is intended to be used in place of hard currency and other conventional forms of payment for electronic transactions. Digital currencies, in contrast to tangible ones like coins or banknotes, are entirely virtual and usually rely on encryption methods to protect transactions and manage the creation of new units.

Bitcoin is the most well-known and extensively utilized digital money. It was developed in 2009 under the pseudonym Satoshi Nakamoto by an anonymous individual or group of individuals. With Bitcoin, transactions are kept on a public ledger that is kept up to date by a network of computers called nodes rather than a centralized organization like a central bank. This decentralized network is known as blockchain.

The existing currency dominating the world today is the United States dollar (USD). It has achieved this dominant position due to a combination of factors. Firstly, the USD has been the primary global reserve currency since the end of World War II. Many countries and central banks hold significant reserves of

¹<https://www.theguardian.com/business/2018/jan/25/bitcoin-wont-last-in-world-of-finance-warns-nobel-winning-economist>

USD to facilitate international trade and stabilize their currencies. This reserve currency status gives the USD an advantage in global transactions. Secondly, the US economy is considered one of the most stable and trusted in the world. The US Federal Reserve, the country's central bank, has a strong track record of managing monetary policy and maintaining stability. This stability and trust in the US economy make the USD the preferred currency for global trade and finance.

The dominance of the USD has significant implications for exchange rates. Since many currencies are benchmarked against the USD, its movements can impact the relative value of other currencies. Factors such as supply and demand dynamics, economic indicators, interest rates, and geopolitical developments all influence the exchange rates. A stronger USD can make other currencies weaker, affecting trade and investments. The dominance of the USD also brings about changes in existing economic theories. For example, the Mundell-Fleming model, which assumes fixed exchange rates and limited capital mobility, may not fully align with the realities of a global economy dominated by a flexible exchange rate system. The rise of digital currencies like Bitcoin and other cryptocurrencies adds further complexity to economic theories. These digital currencies operate outside traditional financial systems and have the potential to disrupt monetary policy mechanisms, capital flows, and financial stability. In terms of surviving with these theories, economists and policymakers are continuously evaluating and adapting existing economic theories to reflect the changing dynamics of the global economy. The influence of the USD and the emergence of digital currencies have prompted a re-examination of existing concepts and the development of new economic theories to better understand and manage these phenomena.

Why is India not ready to accept digital currency?

India's stance on digital currency is multifaceted and subject to ongoing debate. It is important to note that the Indian government has not outright rejected digital currency but rather expressed concerns and reservations about its widespread adoption. Some factors contributing to India's cautious approach include:

- **Regulatory Challenges** - The Indian government has concerns about the potential for digital currencies to be used for illicit activities such as money laundering, tax evasion, and funding terrorism. Creating a robust regulatory framework to address these risks is a necessary prerequisite for wider adoption.
- **Financial Stability** - The Reserve Bank of India (RBI), the country's central bank, is responsible for maintaining financial stability. The volatility and decentralised nature of digital currencies pose challenges for traditional financial systems and institutions, raising apprehensions about potential disruptions and risks to the economy.
- **Consumer Protection** - Consumer protection is a crucial concern for any financial system. Digital currencies, especially those not issued or regulated by a central authority, lack the same level of oversight and consumer protection mechanisms as traditional currencies. Without adequate safeguards, individuals may be vulnerable to scams, hacking, or losing their digital assets.
- **Technological Infrastructure** - Widespread adoption of digital currency requires robust technological infrastructure, including secure platforms, internet connectivity, and digital literacy. India, despite its growing digital ecosystem, still faces challenges in terms of infrastructure gaps and accessibility, especially in rural areas.
- **Monetary Policy Control** - One of the key concerns for central banks is maintaining control over monetary policy to manage the economy effectively. With decentralised digital currencies, central

banks may find it more challenging to influence macroeconomic factors like interest rates, inflation, and money supply.

It's worth noting that despite these concerns, India has shown interest in exploring its own central bank digital currency (CBDC), which would be regulated and controlled by the Reserve Bank of India. The future outlook regarding digital currencies in India remains uncertain and subject to further developments, discussions, and potential regulatory frameworks.

To what extent digital currency would shape the economy in 10 years?

- **Increased Financial Inclusion:** Digital currencies have the potential to provide financial services to unbanked and underbanked populations. By eliminating the need for traditional banking infrastructure, digital currencies can enable access to financial solutions for individuals who previously lacked them.
- **Streamlined Payment Systems:** Digital currencies can revolutionise payment systems by providing faster and more efficient transactions. With reduced intermediaries and transaction costs, businesses can streamline their operations and consumers can enjoy quicker and more convenient transactions.
- **Enhanced Security and Privacy:** Digital currencies leverage blockchain technology, which offers enhanced security and privacy compared to traditional payment systems. The decentralised nature of blockchain makes transactions more secure and transparent, reducing the risk of fraud and identity theft.
- **Increased Efficiency in Cross-Border Transactions:** Traditional cross-border transactions can be time-consuming and expensive due to intermediaries and associated fees. Digital currencies have the potential to simplify and expedite cross-border transactions, reducing costs and improving efficiency for businesses and individuals.
- **Disruption of Traditional Banking Systems:** Digital currencies can challenge the dominance of traditional banking systems by offering alternative methods of storing and exchanging value. This could lead to a redistribution of financial power and potentially reshape the banking sector.
- **Innovation and Financial Technology (Fintech) Advancements:** The rise of digital currencies will likely foster innovation and the development of new fintech solutions. This could lead to the creation of new business models, products, and services that will further shape the economy.

How far are digital currencies successful in development?

The development and success of digital currencies can vary greatly depending on various factors such as technological advancements, regulatory frameworks, adoption rates, and market conditions.

In recent years, there has been significant progress in the development and acceptance of digital currencies, most notably with the rise of cryptocurrencies like Bitcoin. Bitcoin has gained mainstream attention and seen significant price appreciation, attracting investors and creating a new asset class. Other cryptocurrencies, like Ethereum and Ripple, have also gained traction and have their own unique use cases and ecosystems.

Furthermore, various countries and central banks are exploring or implementing their own digital currencies. China, for example, has made significant progress in developing its digital currency, the Digital Yuan, and has started testing its usage in several cities. The development of central bank digital currencies (CBDCs) is seen as a way for governments to digitise their fiat currencies for more efficient transactions and oversight.

However, it is important to note that the development of digital currencies is still in its early stages and faces significant challenges. This includes regulatory concerns, technological hurdles, scalability issues, price volatility, security vulnerabilities, and consumer acceptance.

To what extent digital currency would take over country based currencies?

The extent to which digital currencies may take over country-based currencies is uncertain and highly speculative. Currently, most digital currencies, such as Bitcoin, are not designed to replace traditional currencies but rather to serve as alternative forms of payment or investment assets.

There are several factors that need to be considered when evaluating the potential for digital currencies to replace country-based currencies:

Regulatory Frameworks

The regulatory environment plays a crucial role in determining the acceptance and adoption of digital currencies. Governments may choose to accept, regulate, or restrict digital currencies based on their assessment of the potential risks and benefits.

Stability and Trust

Digital currencies need to establish stability, trust, and widespread acceptance to compete with the stability and wide acceptance of country-based currencies, such as the US dollar or the euro.

Infrastructure and Adoption

Widespread adoption and a well-developed infrastructure to support digital currencies are necessary for their success. This includes secure and user-friendly wallets, exchanges, and merchant acceptance.

Central Bank Digital Currencies (CBDCs)

Some central banks are exploring the development of their digital currencies, known as CBDCs. These could potentially offer the benefits of digital currencies while maintaining the control and stability of a country-based currency, blurring the line between digital and traditional currencies.

It is important to note that the adoption and use of digital currencies vary by country and region. While some countries, such as El Salvador, have adopted Bitcoin as legal tender, most countries are still in the early stages of exploring and regulating digital currencies.

When would the US dollar get replaced by regional currencies?

If there were a major shift in global economic power, accompanied by a decline in the United States' economic influence, it could potentially pave the way for the emergence of regional currencies. Factors such as geopolitical shifts, changes in trade patterns, and the rise of new economic blocs may also play a role in the consideration of regional currencies.

However, it is important to note that replacing a major reserve currency like the US dollar is a complex process that would require significant coordination among countries. Nations would need to establish confidence in a new currency's stability, liquidity, and acceptance, as well as create mechanisms for efficient exchange and trade settlement.

Literature review

Oziliet et al. (2023), The aim of this paper is to provide insight into recent developments in central bank

digital currency (CBDC) research, aimed at aiding researchers, policymakers, and practitioners in gaining a deeper understanding of CBDC. The review highlights a prevailing consensus regarding CBDCs being a liability of the central bank with attributes akin to cash. It also discusses the rationale and advantages behind CBDC issuance, including enhancing financial inclusion, refining monetary policy, and promoting efficient digital transactions. Moreover, it indicates that numerous central banks are exploring CBDC issuance due to its potential benefits. Nonetheless, some studies advise exercising caution regarding excessive optimism about CBDC benefits, citing limitations in CBDC design and its challenge in meeting various conflicting objectives. The review suggests potential avenues for future research, emphasizing the necessity of identifying the optimal CBDC design capable of reconciling competing objectives.[1]

David Yermack (2018). In 2017, a significant surge in interest in cryptocurrencies propelled their collective market value beyond \$600 billion, marking a staggering increase of over 700% for the year. Concurrently, notable corporations and governmental entities embarked on blockchain initiatives across various sectors, including shipping, logistics, electric power distribution, and real estate title registration. This article offers a synopsis of my research in digital currency, focusing on three key areas: evaluating the suitability of bitcoin as a currency, analyzing the potential impact of blockchain technology on central banking, and exploring the disruptive potential of blockchain technology on equity markets and corporate governance dynamics. This research draws from a multidisciplinary approach encompassing finance, banking, law, economics, cryptography, macroeconomics, and other relevant fields.[2]

Arnold mehl (2022). A two-country DSGE model incorporating central bank digital currency (CBDC) is developed to examine the ramifications of CBDC on shock transmission, optimal monetary policy, and welfare in an open economy setting. Introducing a CBDC amplifies the cross-border transmission of shocks and enhances international connections. The extent of these effects is heavily contingent upon the specific design features of the CBDC. Furthermore, the introduction of a CBDC by one country exacerbates asymmetries within the international monetary system by diminishing monetary policy independence and welfare in the other country.[3]

Digital Currency (DC) represents a form of currency existing solely in digital or electronic form, devoid of physical presence. The advent of digitalization has revolutionized monetary systems and payment mechanisms. While digital money itself is not a recent phenomenon in modern economies, digital currencies now enable instantaneous peer-to-peer value transfers, a feat previously unattainable. Digital currency has already manifested across various contexts, stored in a decentralized database accessible via the internet. This study aims to elucidate the concept of digital currency, its diverse forms, evolutionary trajectory, global impact, influence during the COVID-19 pandemic, and future prospects. Employing a historical descriptive approach, this study synthesizes insights provided by various researchers, financial experts, and central banks.[4]

Todd keister (2023). We investigate the impact of introducing a central bank digital currency on equilibrium allocations and welfare within an economy utilizing both currency and bank deposits for transactions. Our analysis underscores a significant policy dilemma: although a digital currency typically enhances exchange efficiency, it may concurrently displace bank deposits, elevate banks' financing expenses, and diminish investment levels. We establish criteria delineating scenarios wherein specialized

digital currencies, competing solely with physical currency or exclusively with bank deposits, yield welfare gains. In instances where specialized currencies are not viable, we elucidate the policy dilemmas inherent in issuing a unified digital currency.[5]

Hossieni (2022). Numerous central banks are deliberating whether to introduce a central bank digital currency (CBDC), which holds potential benefits such as the ability to accrue interest. However, utilizing a CBDC imposes costs on agents. My research delves into the optimal monetary policy in scenarios where agents have access to either cash only, a CBDC only, or both cash and a CBDC. If the cost associated with using a CBDC remains modest, employing a CBDC can facilitate more efficient allocations compared to cash alone, potentially achieving optimal outcomes. Nevertheless, the availability of both cash and a CBDC may yield lower welfare than scenarios where only one form of currency is available. I assess the welfare improvements associated with CBDC introduction across different scenarios for the United States and Canada. For instance, if the cost of CBDC usage relative to cash stands at approximately 0.25% of the transaction value, introducing a CBDC could elevate consumption by 0.12–0.21% in the United States and 0.04–0.07% in Canada.[6]

Ulrich Bindseil (2019). The advancement of information technology (IT) and its integration into the financial sector have prompted central banks and scholars to contemplate the potential benefits of implementing central bank digital currencies (CBDCs) accessible to the general public. This paper begins by briefly outlining the perceived advantages associated with CBDCs and provides an overview of pertinent historical context regarding the issuance of various forms of central bank money. Subsequently, it explores two primary arguments against CBDC adoption: (i) the risk of causing structural disintermediation of banks and centralizing the credit allocation process within the central bank, and (ii) the risk of exacerbating systemic bank runs during crises. The paper proposes a solution in the form of a two-tier remuneration system for CBDCs, positing it as a proven and straightforward mechanism to regulate the quantity of CBDCs both in normal circumstances and during crises. However, it also acknowledges that managing the quantity of CBDCs may not suffice to control their impact on the financial system comprehensively. Lastly, the paper compares the financial implications of CBDCs with those of crypto assets, stablecoins, and narrow bank digital currencies, highlighting both similarities and differences in terms of their effects on the financial system. It concludes that well-regulated CBDCs appear feasible, while acknowledging that their introduction could instigate transformative changes within the financial landscape.[7]

Methodology

In an endeavour to gain insight into public sentiment regarding digital currencies, I initiated an online survey questionnaire, designed to capture the diverse perspectives of individuals on this evolving financial landscape. The questionnaire, meticulously crafted to delve into various aspects of digital currencies, attracted the participation of 43 individuals from diverse backgrounds and demographics. Through a series of thoughtfully constructed questions, participants were encouraged to articulate their views, concerns, and expectations surrounding digital currencies. The response garnered from this survey promises to offer valuable insights into the prevailing perceptions and attitudes towards digital currencies, shedding light on their potential role in shaping the future of finance.

Results and Discussion

The majority of the participants were students. Around 60% of participants believed that both the type of currencies can coexist by 2040 and 28% people believed that only digital economy will prevail. Around 50% were somewhat familiar with digital currencies yet that were confident that it will takeover traditional currency in the future which shows that young generation wants to experiment with the new type of currency and can understand its potential value in the future. Even though the young generation feels strongly about the digital currency they still feel that fraud risks are higher associated with it.

Digital Currencies vs. Traditional Currencies by 2040:
43 responses

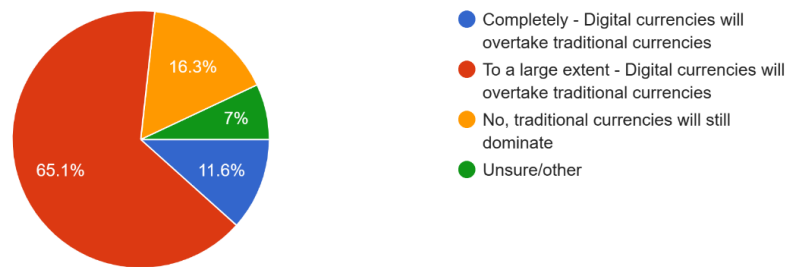


Figure 1. Participants responses towards currency dominance by 2040

Familiarity with Digital Currencies:
43 responses

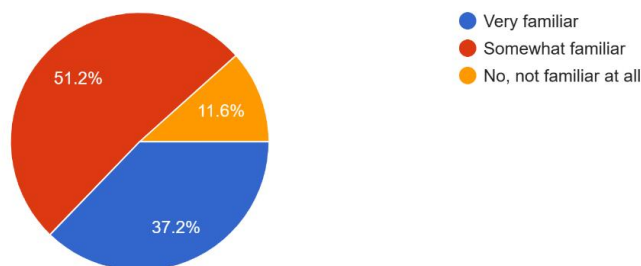


Figure 2. Familiarity with Digital Currencies

Concerns about Security and Privacy Risks:
43 responses

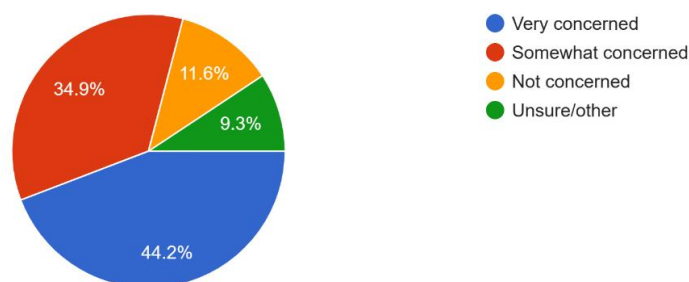


Figure 3. Security risk perception

Conclusion

As the survey draws to a close, it becomes evident that participants harbor a collective anticipation for a future where digital currencies revolutionize the traditional transactional landscape. Envisioning a seamless and efficient financial ecosystem, many foresee digital currencies playing a pivotal role in shaping the way we conduct transactions. However, amidst this optimism, concerns loom regarding heightened security risks inherent in decentralized systems. Participants express a cautious optimism, acknowledging the need for robust security measures to safeguard against potential threats. Furthermore, it's notable that while younger demographics embrace the digital currency wave, there exists a palpable discomfort among the older generation, highlighting the generational gap in adopting novel financial technologies. This nuanced understanding underscores the complex dynamics surrounding the adoption and evolution of digital currencies in contemporary society.

References

1. Ozili, P.K. (2023), "Central bank digital currency research around the world: a review of literature", *Journal of Money Laundering Control*, Vol. 26 No. 2, pp. 215-226. <https://doi.org/10.1108/JMLC-11-2021-0126>
2. Yermack, David (2018) : The potential of digital currency and blockchains, NBER Reporter, National Bureau of Economic Research (NBER), Cambridge, MA, Iss. 1, pp. 14-17
3. Arnoud et al. (2022). Central bank digital currency in an open economy. *Journal of Monetary economics*. 127. 54-68. <https://doi.org/10.1016/j.jmoneco.2022.02.001>
4. Dr. Hariharan Narayanan (2020). IS FUTURE A RULE OF DIGITAL CURRENCY???. *International Journal of Research - GRANTHAALAYAH*, 8(8), 96-106. <https://doi.org/10.29121/granthaalayah.v8.i8.2020.935>
5. Todd keister (2023). *The Review of Economic Studies*, Volume 90, Issue 1. 404–431. <https://doi.org/10.1093/restud/rdac017>
6. Hossieni (2022). Central Bank digital currency and monetary policy. *Journal of economic Dynamics and control*. 142.104150. <https://doi.org/10.1016/j.jedc.2021.104150>
7. Ulrich Bindseil (2019) Central Bank Digital Currency: Financial System Implications and Control, *International Journal of Political Economy*, 48:4, 303-335, DOI: [10.1080/08911916.2019.1693160](https://doi.org/10.1080/08911916.2019.1693160)