



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Digital Currencies And Its Future In India

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Abstract: A form of currency that can only be accessed digitally or electronically is known as Digital Currency. Other names for it include cyber cash, electronic currency, digital money. As they only exist in electronic form, digital currencies can only be used with computers or smartphones. Common digital currencies are frequently the least expensive way to trade currencies because they don't need middlemen. Not all digital currencies are cryptocurrencies, but all cryptocurrencies are digital currencies. The frictionless asset transfer and potential reduction in transaction costs are some benefits of digital currencies. Digital currencies have some drawbacks, including the fact that they can be volatile to trade and are vulnerable to hacking. Through this qualitative paper, the researcher went through the different digital currencies and its related future. For this study a variety of articles were verified both digital and physical.

Keywords- Digital Currency, Virtual Currency, Crypto Currency, CBDC, E-Rupee.

I. INTRODUCTION

Digital currencies are only available in digital form and lack any tangible characteristics. Digital currency transactions are carried out through computers or electronic wallets linked to the internet or specific networks. Contrarily, tangible currencies have distinct physical qualities and traits, such as banknotes and coins that have been produced. Only when these currencies are physically in the possession of their holders are transactions involving them possible.

Similar to conventional currency, digital currencies are useful. They can be applied to both paying for products and services. In some online communities, such as gaming sites, gambling portals, or social networks, they may also find restricted use. Instantaneous cross-border transactions are also made possible by digital currency. For instance, if both parties are linked to the same network, a person in the United States may send payments in digital currency to a counterparty in Singapore. Jamaica is the most recent nation to introduce a CBDC, the JAM-DEX. With it, at least ten nations have fully introduced digital currencies, and in 2023, China's pilot project is anticipated to grow.

The **objective of this study** is to understand the advantages and disadvantages of using the Digital Currency and also to understand its relevance in the future of the Indian economy.

II. CHARACTERISTICS OF DIGITAL CURRENCIES

- As was previously mentioned, digital currencies are only available in digital form. They don't have a physical equivalent.
- Both centralised and decentralised digital currencies exist. Fiat currency is produced and distributed centrally by a central bank and other governmental organisations and exists in physical form. Decentralized digital money systems include well-known cryptocurrencies like Bitcoin, Ethereum, etc.

- c) Digital currencies allow value transfers. The current structure for currencies, which links them to sales and purchases of products and services, must be changed in order to use digital currencies. But digital currencies go beyond the norm. For instance, a gaming network token can provide a player more life or stronger superpowers. This signifies a transfer of value rather than a transaction including a purchase or sale.

III. TYPES OF DIGITAL CURRENCIES

Different kinds of currencies that exist in the electronic world can all be referred to as "digital currency" under one umbrella word. There are primarily three types of currencies:

- a) **Crypto Currency:** This type of digital currency, use cryptography to safeguard and validate network transactions. The generation of such currencies is managed and regulated through the use of cryptography. Digital Currencies like Bitcoin and Ethereum are the examples. Cryptocurrencies may or may not be regulated, based on the location.
- b) **Virtual Currency:** These are unregulated digital currencies that are managed by developers or a founding group made up of different key stakeholders. A predetermined network protocol can likewise be used to algorithmically govern virtual currencies. A gaming network token is an example of a virtual currency, whose economics are set and managed by developers.
- c) **Central Bank Digital Currency:** Digital currencies issued by a nation's central bank are known as central bank digital currencies (CBDCs). A CBDC can be used in complement to or in substitution of conventional fiat money. A CBDC only exists in digital form, as contrast to fiat currency, which exists in physical form. Several countries, including Uruguay, Sweden, and Uruguay, are considering launching digital versions of their domestic fiat currencies.

IV. PROS OF DIGITAL CURRENCIES

Digital Currencies poses the following advantages when compared with the fiat currency one use in their daily life.

- a) **Faster Transaction:** The time needed for transactions using digital currencies is quite short because they often operate inside the same network and complete transactions without the use of middlemen. Transactions using digital currencies are typically quick and inexpensive since payments are conducted directly between the parties involved without the need of any middlemen. Compared to conventional payment mechanisms including banks or clearinghouses, this performs better. Electronic transactions based on digital currencies also enable the essential record-keeping and deal transparency.
- b) **No Physical Production:** Digital currencies don't have to meet a lot of the conditions that apply to physical currencies, such the establishment of physical production facilities. These currencies are also resistant to stains or physical flaws that can occur with real money.
- c) **Implementation Of Monetary And Fiscal Policy:** To allocate money into an economy under the current monetary system, the central bank uses a number of intermediaries, including banks and financial institutions. CBDCs can assist in getting around this system and letting a government organisation pay people directly. They also make production and distribution processes simpler by eliminating the need for physical currency note manufacturing and delivery.
- d) **Cheap Transaction Cost:** Direct communication inside a network is made possible by digital currencies. For instance, if two parties are located within the same network, the buyer can pay the shopkeeper immediately. Even the expenses of digital currency transactions between networks are far less than those using physical or fiat money. Digital currencies can reduce the overall cost of a transaction by eliminating middlemen that seek economic rent from handling it.

V. CONS OF DIGITAL CURRENCIES

Just like how a coin has two sides, Digital Currencies also poses the following disadvantages which hinders the use of it in daily life or for regular use.

- a) **Issues of Storage and Infrastructure:** Digital currencies have their own requirements for storage and processing, despite not requiring physical wallets. An Internet connection, smartphones, and services linked to their provisioning are a few examples. Digital currency storage also requires online wallets with high security.
- b) **Prone to Hacking:** Digital currencies are easy to hack due to their digital origin. Hackers have the ability to take digital currency from online wallets or alter the protocol, rendering them useless. The countless instances of cryptocurrency hacking have shown that there is still work to be done in terms of protecting digital systems and money.
- c) **Price Volatility:** Massive price fluctuations might occur while using digital currency for trade. The decentralised nature of cryptocurrencies, for instance, has led to the proliferation of weakly funded digital currencies, whose valuations are susceptible to jarring shifts depending on investor moods. Similar price trajectories for other digital currencies during their early stages can be observed. For instance, the Linden currency used in the online game Second Life initially experienced a price trajectory that was quite variable.

VI. FUTURE OF DIGITAL CURRENCY

Although the value of cryptocurrencies like bitcoin has skyrocketed, most people use them for speculation or to purchase other speculative assets. Despite some indications of merchant adoption in nations like El Salvador, digital currencies are unsuitable for the majority of daily uses because to their high volatility and complexity. Stablecoins, whose value is tied to the price of fiat currency, have been introduced by several businesses in an effort to lower volatility. Typically, this is accomplished by depositing an equivalent sum in money, which can then be redeemed for tokens. Concerns have been raised about stablecoin issuers like Tether because they have used these deposits for riskier investments, making them more susceptible to a market crash.

Central bank digital currencies, which might be issued by a nation's bank or monetary authority, are still another potential application. Similar to cryptocurrencies, these would be used and kept in online wallets, but the central bank would be able to issue and freeze tokens as it saw fit. Many nations, including China, have suggested creating digital versions of their national currencies. India's E-Rupee has already been rolled out for pilot study on 1st November, 2022 in the wholesale market which includes the selected financial institutions of the country like SBI, ICICI, etc. The E-Rupee will be out for its retail use by next month which can be used for transactions.

VII. E-RUPEE OF INDIA

On November 1st, India joined the group of 50 nations that are actively investigating digital currency, either through development, readiness to launch trial projects, or actual launch. With secondary market trades in government bonds, the Reserve Bank of India launched the first pilot project of the central bank digital currency (CBDC), or e-rupee, for the wholesale sector.

Using CBDC, nine banks bought and sold bonds in the secondary market for a total of Rs 275 crore (Rs 2.75 billion). On that day, there were 20,865 crore (or Rs 208.65 billion) worth of transactions. In fact, just a very small amount of the trade was conducted in digital currency, but this is only the beginning. The RBI is prepared to follow it up this month with a trial programme for retail consumers. According to the CBDC tracker maintained by the American think tank in international issues, Atlantic Council, at least 105 nations, accounting for more than 95% of the world's GDP, are now investigating CBD. Only 35 countries were involved when the Covid epidemic first rocked the world in May 2020, just over two and a half years ago.

The central bank will gain from a decrease in the price of producing money, distributing it, and cleaning up filthy notes, among other things. According to information obtained by The Hindu Business Line through the right to information process from the RBI subsidiary that prints currency, Bharatiya Reserve Bank Note

Mudran Ltd, the selling price for 1,000 pieces of Rs 10 denomination notes in FY2022 was Rs 960, making the price of one Rs 10 note 96 paise. Just 1 paisa less, or 95 paise, was paid for each piece of the Rs. 20 note. The price was Rs 1.13 for a Rs 50 note, Rs 1.77 for a Rs 100 note, Rs 2.37 for a Rs 200 note, and Rs 2.29 for a Rs 500 note. While the price of a Rs 20 note was only 1 paisa in FY2022, the price of a Rs 50 note increased by 23% over FY2021 (from 92 paise to Rs 1.13). The price of printing Rs. 500 notes did not increase throughout this time.

The RBI's aversion to cryptocurrencies is one of the reasons it is pushing for CBDC. There are numerous causes for that. They cannot, for instance, be slotted. They do not constitute a good, a medium of exchange, or a component of the payment system. Such currencies lack sovereign support because central banks do not issue them. Additionally, because cryptocurrency transactions are private, they cannot be examined by the general public. This has significant consequences for KYC standards and carries a high danger of money laundering and financing terrorism. Since cryptocurrencies have no foreseeable cash flow and their value is constantly speculative, the RBI refuses to designate them as assets. Additionally, there is no consumer protection.

The CBDC will reduce remittance fees as cross-border transactions become more affordable. According to a World Bank research, India received the most remittances in 2021. There were three cross-border retail CBDC pilot projects and nine cross-border wholesale CBDC pilot projects as of June 2022. China is promoting digital currency in the largest cross-border CBDC experiment in the world, according to a recent Reuters report. 'mBridge', a project that tests cross-border payments in digital currencies issued by the central banks of China, Hong Kong, Thailand, and the United Arab Emirates, will conduct a six-week test from August 15 to September 23.

VIII. CRYPTOCURRENCY IN INDIA

India, as a nation, has been actively embracing cryptocurrency as one of the primary means of the online transaction as its utility has continued to grow in China and spread throughout all of Asia. The Indian federal government wanted to outlaw trading in cryptocurrencies just as its popularity was reaching its pinnacle. The protection of investors is a particular concern for the Reserve Bank of India (RBI). It is concerned about the secrecy of cryptocurrency transactions and the fact that the currency has no inherent value because it is not backed by any assets. The government believes that this could open the door to a higher level of online fraud and scamming. Additionally, as more domestic and international transactions take place, there may be more use cases that increase the intrinsic value of cryptocurrencies.

While the RBI prohibited commercial banks from providing services to cryptocurrency dealers and exchanges in 2018, the prohibition was overturned by the Indian Supreme Court in march 2020 after extensive petitioning, and it happened right when the global coronavirus epidemic broke out. Most of India had lockdown and movement restrictions during this time. This perception is what led to the sudden increase in cryptocurrency use in the nation once more.

Currently, RBI plans to introduce the Central Bank Digital Currency (CBDC) in 2022–2023 as well. It will be a form of digital legal tender that the Central Bank will issue. It will be identical to fiat money but in a different format. It will be convertible into fiat money. Virtual legal recognition for cryptocurrencies was given in the Union Budget of 2022. Budget Minister Nirmala Sitharaman did not use the term "currency" when introducing the finance bill. She did, however, somehow give it legal standing by referring to it as "digital assets." She has said that this choice was made in response to the extraordinary rise in transaction volume and frequency. The doubt over the future of cryptocurrencies in India has now been resolved.

The income obtained from cryptocurrency trades is subject to a steep 30% tax. Additionally, no deduction can be made for this tax. In addition, 1% TDS will be added to payments made with digital assets in order to keep track of transactions. However, a number of queries have been raised after this disclosure. This is so because neither investor protection nor rules for cryptocurrency exchanges are included in the budget. Overall, the government has still not decided whether cryptocurrencies are legal in India.

IX. CONCLUSION

Assets known as digital currencies are solely used in electronic transactions. Although they can be exchanged for conventional money or other assets, they have no physical form. Although cryptocurrencies like bitcoin are the most widely used digital currencies, many national governments are considering creating their own controlled digital currencies. Just like how Artificial intelligence plays an important role in the present and will also be a revolution in the future, Digital Currencies too will be an inevitable part in our life.

The majority of individuals use cryptocurrencies like bitcoin, despite the fact that their value has risen, for speculation or to buy other speculative assets. Despite some signs of merchant adoption in countries like El Salvador, the majority of daily applications of digital currencies are not appropriate due to their high volatility and complexity. A number of companies have launched stablecoins, whose value is correlated with the cost of fiat money, in an effort to reduce volatility. Usually, this is done by depositing a corresponding amount of cash, which may then be exchanged for tokens. Because stablecoin issuers like Tether have used these deposits for riskier investments, increasing their vulnerability to a market crash, concerns have been expressed regarding them.

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