



Cryptocurrency: Concept And Implications

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ABSTRACT

The technology disruption has created opportunities and challenges for human life. Cryptocurrency is emerging as the alternative medium of exchange. Cryptocurrency is based on the blockchain technology. The paper discusses the concept, framework of cryptocurrency and its implications. The paper draws upon experience based on interactions with people who are concerned with cryptocurrency and published sources. India is emerging as the leading market for cryptocurrency. Predominantly young demographic profile makes India an attractive market. Understanding cryptocurrency is crucial for taking an informed investment decision. This paper attempts to describe cryptocurrency concept for better understanding and better decision making.

Keywords: Cryptocurrency, India, Block Chain, Implications, Demography, Investment.

1. INTRODUCTION

The global financial crisis of 2008 had highlighted the vulnerability of the banking system. After the global financial crisis of 2008, Bitcoin emerged as an alternative to traditional banking system. Bitcoin is the first cryptocurrency and has attracted the attention of investors and regulators globally. Many people tried to develop digital currency in nineteenth century but attempts could not succeed (Mukhopadhyay et al. 2016). Bitcoin was introduced as a concept in a 2008 paper titled "Bitcoin a peer-to-peer electronic cash system" by the pseudonym Satoshi Nakamoto. The identity of the person is still a mystery. It is a peer-to-peer transaction system (Vejacka, 2014). Bitcoin was made available for public through blockchain in 2009. Bitcoin address is generated after installing bitcoin wallet on your computer or phone. Bitcoin address can be shared with the other people who can use it for payment. Since they exist in digital form and not in physical world, they are referred to as digital currencies. Bitcoin is based on three pillars of cryptography,

demand and supply and decentralized networks. It does not require any middleman (Li & Wang, 2016). In Cryptography data is converted into codes. Initially only mining of bitcoin was done. In 2010 bitcoin got a monetary value when 10,000 bitcoins were used to buy two pizzas. Rival cryptocurrencies were launched in 2011. In 2013 one bitcoin was worth \$1000. Bitcoin was valued more than \$60,000 in April 2021. The market value of Bitcoin has increased from \$6.2 billion in 2014 to \$ 1 trillion in February 2021. Addition of transactions to bitcoin ledger creates bitcoins from bitcoin mining. The algorithm-controlled mining restricts total bitcoin creation to 21 million. The identity of the user is hidden (Jani, 2018).

Bitcoin relies on proof of work consensus algorithm for its security. Once the transactions are added to existing block, the process becomes irreversible. Mining is the process of creating new crypto coins by solving complex mathematical equations. Miners use advanced computers to solve the equations. Bitcoin uses distributed ledger technology. A ledger is a written or computerized account of all the transactions a business completes. A centralized ledger, therefore, is a record of all the transactions conducted by a set of companies. Blockchain technology that offers bitcoins has lot of potential for secure peer to peer transactions. A blockchain is a decentralized ledger of all transactions across a peer-to-peer network. blockchain technology is a secure software architecture that allows data to be saved in a safe and decentralized manner.



Figure 1: Trend of Bitcoin in India

Source: Thakkar, 2020

2. REGULATORY PROVISION IN INDIA

Reserve Bank of India imposed a ban on banks with regard to cryptocurrency transactions in 2018, however Supreme Court ruled against the RBI ban in March 2020. Now RBI has announced that it is examining to create central digital currency in India. Gains from cryptocurrency are subject to capital gains tax under Income Tax Act.

3. IMPLICATIONS OF CRYPTOCURRENCY

There are more than 1.7 billion unbanked people in the world, 190 million in India. The existing digital initiatives and mobile phone penetration has made India the second largest online population. India is expected to have 900 million active internet users by 2025. The digital penetration can be used along with digital currency for enhancing the financial inclusion in India. India is the second largest market for adoption of cryptocurrency. Fifteen million Indians have invested in cryptocurrency. The cryptocurrency investments in India have increased from \$ 923 million in 2020 to \$ 6.6 billion in 2021. Currently it is an urban phenomenon. Proper regulation can make it penetrate into rural areas. India is among the largest recipients of remittances globally. Cryptocurrency can reduce the cost and enhance the security and convenience of remittances. India has the advantage of demography. A predominantly young population comprising of millennials and Generation Z will drive the adoption of cryptocurrency. Financial inclusion supported by secure peer to peer transaction ecosystem will unlock the potential of rural and semi urban areas and propel India into a fast economic growth with inclusion.

The volatility of Bitcoin makes it a high-risk investment. In 2018, bitcoin lost 80% value. The ownership of Bitcoin is concentrated as 2 to 3% investors hold 90 to 95% of Bitcoin by value. Thus, Bitcoin is highly speculative investment. Bitcoin consumes lot of energy. One bitcoin transfer uses 2.02 million Visa transactions equivalent to 152000 hours of watching You Tube. The global warming and its implications for sustainability of human existence needs to be evaluated to derive optimum socio-economic outcomes for a developing country like India. The terrorist and illegal dealings may also find its place in cryptocurrency (Kashyap & Chand,

2018). It is a cause of concern. In India there is no regulatory protection to the victims of involving cryptocurrency (Singh & Singh, 2018).

Cryptocurrency offers the benefits of enhancing the cross-border payments. However, scale and structural vulnerabilities of crypto markets along with interlinkages with traditional financial systems may lead to significant disturbance to the global economy. Cryptocurrency value is only determined by demand and supply, and it is susceptible to rapid fall and volatility (Thackeray, 2018).

4. CONCLUSION

Cryptocurrency like Bitcoin were developed to bypass the regulated financial system. Though it offers an alternative way of secured peer to peer transactions, the impact on sovereignty of nations needs to be assessed and regulatory agencies should proceed with

caution to legalize cryptocurrency. Cryptocurrency may undermine the capacity of government to regulate economy. Blockchain and digital currency issued by monetary authority will provide opportunity of enhancing financial inclusion and improve efficiency of delivery of financial services for inclusive economic development of India. Indian investors and citizens are not fully aware about the risks of cryptocurrency. They are getting lured by the promises of lucrative returns from cryptocurrency. The KYC norms are not being followed. There is no regulator for cryptocurrency investments in India. High risk and lack of transparency is a cause of concern for potential investors in cryptocurrency in India. RBI and the political establishment should take immediate steps to check the misuse of cryptocurrency to raise money from India for terrorism and anti-national activities of enemy countries. India needs regulated central bank digital currency, not terror-oriented cryptocurrency.

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