

Analysis of Cryptocurrency, Bitcoin and the Future

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ABSTRACT : Technology advances at a rapid rate, and the success of a given technology is almost solely dictated by the market upon which it seeks to improve. Cryptocurrencies may revolutionize digital trade markets by creating a free flowing trading system without fee. The rapid development and growth in the field of information and communication technologies has changed our day to day life. Not only day to day it has changed our traditional pattern of banking and financial transactions. This advancement of information communication technology has helps to use of paper work activities into digital operations. The upgraded technologies have also changed the pattern of financial transactions as well as created a new form of money. Cryptocurrencies are not likely to replace traditional fiat currency, they could change the way internet connected global markets interact with each other, clearing away barriers surrounding normative national currencies and exchange rates. Cryptocurrencies may revolutionize digital trade markets by creating a free flowing trading system without fees. Bitcoin is presented which illuminates some of the recent events and movements that could influence whether bitcoin contributes to a shift in economic paradigms

Keywords: Cryptocurrency, Bit Coin, Currency, Bit Pay, Exchange Rates

Submitted : 04-08-2022 ; Revised : 13-08-2022 ; Accepted : 24-08-2022

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INTRODUCTION

Cryptocurrency can be seen as a digital/virtual currency and cryptography provides very strong security to it and it is next to impossible to do double spending or counterfeiting with cryptocurrency. A cryptocurrency follows decentralized network which is based on Block chain concept (Distributed Ledger). The exchange of cryptocurrency occurs between consent parties without any involvement of brokers or regulating agencies. Valuations of various digital cryptocurrencies are carried out on the basic principle of demand-supply pricing system (more efficient and robust now, thanks to sophisticated programming algorithms) and can be traded against many physical currencies. Due to complications such as the lack of intrinsic value and regulations in the cryptocurrency market, cryptocurrencies tend to show higher levels of volatility than other hard currencies.

These growth of information and communication technology has opened the way of digital currencies and their seamless rapid transaction without or having a very nominal fee. The development of cryptocurrency can be seen as the new medium of bartering, apart from the fiat currency. The most common and famous cryptocurrency 'Bitcoin' is well known and increasing its popularity since the inception of it. It still runs on the same structure as on it was created in 2008. The users can exchange the value digitally without any third party oversight by using the cryptocurrency. These works on various algorithms and transactions occurs on theory of solving the encryption algorithms to create unique hashes which are finite in numbers. By joining the network of computers verifying transaction, the users are also able to exchange hashes. The total possible number of bitcoin that will ever be generated is finite and that will be 21000000 BTC, will preventing the overabundance and ensuring its rarity Value exist for bitcoin because its users have trust that if they accept it as payment, they would could use it elsewhere to purchase something they want or need.

ACCEPTANCE

Many countries have accepted it as a regular medium of exchange while a lot number of countries are still discussing its possibilities. Besides these, some of the countries like India, who haven't considered it neither legal nor illegal. Countries which have legalese the bitcoin as medium of exchange are USA, Canada, UK, Sweden, Spain, Germany, Switzerland, and many European countries, Thailand etc. Besides the above countries, the countries Vietnam, Turkey, Indonesia, Hong Kong, china etc. still considering it illegal. If we see in Indian perspective, the government of India neither consider it legal nor illegal that's why there is a lot of confusion in the country. Recently, Indian Finance minister Nirmala Sitharaman announced in Union budget 2022-23 that Indian government will put 30% tax (the highest tax slab in India) on income generated

from cryptocurrencies. Big financial institutions, experts and academicians have different opinions in this regard. They claim that it would be the end of cryptocurrency market in India or it would be possible that RBI (Reserve Bank of India) may launch its own crypto or digital currency.

GROWTH

It is almost impossible to know the exact user of cryptocurrencies and the regularity of the use. A large number of the people hold their cryptocurrency in different and multiple wallets. A person can store his one cryptocurrency in different wallet at different exchanges. It is not easy to calculate the exact number of cryptocurrency users, these can be calculated in a number of approximation.

THEORETICAL REVIEW

The Three Main Types of Cryptocurrency

1. **Altcoins** - There are **more than a thousand altcoins in existence**. The majority of altcoins are **just alternate versions of Bitcoin with minor changes**. *That's how they got the name 'altcoins'*. Stakers are people that verify transactions for rewards, just like miners. But instead of racing to verify a block before anyone else does, they are selected one by one to take their turn. This **uses much less electricity** because they aren't thousands of miners using their electricity to try and verify the same block. Instead, there is just one '*staker*' per block. In fact, **Ethereum** and **NEO** are examples of altcoins that are **super, super different from Bitcoin**.
2. **Tokens** - Compared to the other two main types of cryptocurrency, they are **completely unique** in the fact that they do not have their own blockchain. *tokens don't have to represent a physical thing like electricity or a house, though*. They can instead be used to **purchase things on the D-App [decentralized applications]**. Either that, or they can be used to **get certain advantages** – *things like discounted fees and voting fees*. Tokens always have a price that they can be sold for, which is why some people buy them. Some people buy tokens to sell them later for a higher price, instead of buying them to use them on the dApp. So, to make a transaction on a D-App (i.e. *to use a token*), you must have some Ether or NEO (*or whichever altcoin the D-App is built on*) to pay for the transaction fees.
3. **Bitcoin** - It was the first blockchain. After Bitcoin, many new blockchains were created :- these are called **altcoins**. **NEO, Litecoin** and **Cardano** are solid examples of altcoins. In 2008, the idea of Bitcoin was revealed.

Someone named **Satoshi Nakamoto** published white paper online. However, it was later revealed that **Satoshi Nakamoto was not this person's real name**. *Even today, no one knows the real name of the creator of Bitcoin.*

At the time, nobody knew that Bitcoin would become what it is today. Nobody knew that it would be **the start of a huge technological movement... but it was**. It was the beginning of cryptocurrencies – *the beginning of a new era*. Several years passed in which the primary use of Bitcoin was to trade goods and services on **the dark web**. In 2013-14, Bitcoin grew a lot. Then, it slowed down a bit. But in 2017, the market for Bitcoin went up, up and further up. In December 2017, Bitcoin reached a price of **\$20,000 per Bitcoin**. So, anyone holding 50 Bitcoins or more became **a millionaire**. In January 2015, 50 Bitcoins would have cost you just \$10,000. That's **a profit of \$90,000!**. With Bitcoin, **each transaction happens directly between users** – it's called **a peer-to-peer network**. This is all possible thanks to the blockchain. Bitcoin introduced blockchain technology to allow users to send and receive Bitcoin without using a third party.

How it Works? When someone sends Bitcoin, the transaction is **verified and then stored on the blockchain** (*the shared database*). The information on the blockchain is **encrypted** – everyone can see it, but only the owner of each Bitcoin can decrypt it. Each owner of Bitcoin is given a '**private key**', and this private key is how they decrypt their Bitcoin. Well, the people and companies that run the block chain do it **using computer power**. *They run special software on a computer that processes transactions on the blockchain. The computers used to run the software are called 'nodes'.*

Challenges & Threats

The biggest problem of cryptocurrency is the security and financial problems. Various news from exchanges comes time to time about the fishing and attacking the security of exchanges. Most of the developed economies in the world have regularized the cryptocurrencies as they have a good infrastructure of information and communication technologies. On the other hand, in the developing countries, the literacy rate and knowledge of information and communication technologies and its systems is also a weaker point. People still feel some fear in using the online banking and financial systems because of low hands on experience of latest technologies and electronic gadgets. Another reason behind this is the cyber-crimes and stealing money from the accounts of the people. Hacking is considerably a one of the biggest challenge in cryptocurrency markets. Many time hackers and malicious users can create the as much as they want from the cryptocurrency if they break the system and got the method of cryptocurrency creations. Money laundering is another problem

that is possible to rise with the use of cryptocurrency especially with those exchanges who allow their users to exchange the cryptocurrency to fiat currency.

CONCLUSION

It can be concluded from the above discussion that the journey of cryptocurrency is not too long but it has seen many ups and downs in this short span. Innovation in cryptocurrency market spell with more complexity when it comes to understanding drivers of speculations in this market. Cryptocurrencies are still in their infancy, and it is difficult to see if they will ever find true mainstream presence in world markets. The Bitcoin community is striving to push into the mainstream through innovation and solving old problems. Other forms of cryptocurrency have already emerged and have gained followings of their own, and each slightly different from Bitcoin and arguably as valid. cryptocurrency is a product of using cryptography to create a digital property. The frontier of digital property was popularized by the music industry's shift to a cloud-based infrastructure. As the world largest developing economies India and China make legalise and regulate the cryptocurrency, it will attract a huge number of users of cryptocurrency.

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