

# Cryptocurrency: An Analysis of Growth of Bitcoin and its Future

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**Abstract:-** The rapid development and growth in the field of information and communication technologies has changed our day to day life. Not only the day to day life, but it has changed our traditional pattern of banking and financial transactions. This advancement in the ICT has converted a lot of traditional paper work activities into digitally operated. A lot of number of online users of technologies have made people capable to use these technologies in a very easier manner. These technologies also changed the pattern of financial transaction as well as created a new form of money.

Cryptocurrency, an encrypted peer-to-peer network for facilitating the digital barter and transactions, instant transfer of digital currencies, is a technology developed eleven year ago. Bitcoin is the first and the most popular cryptocurrency and having more than half of the total market share of all cryptocurrencies. These cryptocurrencies are not going to replace the regular fiat currencies, but these change the way of online interaction of global markets. Cryptocurrencies may revolutionize digital trade markets by creating a free flowing trading system without fees and in a very rapid without any third party involvement. The analysis of these cryptocurrencies will deal in this paper.

**Keywords:-** Cryptocurrency, Virtual Currency, Digital Currency, Bitcoin.

## I. INTRODUCTION

This is time of technology and it is getting more day by day in every aspect of society and life. No area is escaped from the technology and we are using it very easily. As we can see, after the year 2000, a lot of technological growth and advancement happened. People become more internet friendly and a lot of activities are going online. The information and communication technologies has created a lot of opportunities in various aspects. The business and finance sector is also not untouched from the rapidly growing technology. The increasing number of online users has activated a lot of possibilities and virtual concepts of businesses. The result of this is the growth of new types of currencies, transaction and trading.

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. For example, anything or material whose availability is less will be more valuable. Suppose if water was rare, it will more valuable than diamond. 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. (Kelly 2014)

## II. LEGAL ACCEPTANCE

When the technological advancements are on rapid growth day by day, the lot of people is still discussing the legality or acceptance of cryptocurrency as a medium of exchange instead of fiat currency. 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.

➤ *The following list of those countries having bitcoin legal or illegal:*

Countries which have legalised the bitcoin as medium of exchange are *USA, Canada, UK, Sweden, Spain, Germany, Switzerland, and many European countries, Thailand etc.* In these mentioned countries, peoples can use the cryptocurrency to exchange and purchase anything like houses 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 1.3 billion people' country. The government have made committees to see the

possibilities of cryptocurrency in the country and also to check and prevention of wrong uses of cryptocurrency (Helms 2019).

### III. GROWTH OF CRYPTOCURRENCY

It is almost impossible to know the exact user of cryptocurrencies and the regularity of the use. Following are the reasons behind this:

- A large number of the people hold their cryptocurrency in different and multiple wallets.
- For every cryptocurrency user, it is not necessary that one user will have the same cryptocurrency in a single wallet. A person can store his one cryptocurrency in different wallet at different exchanges.

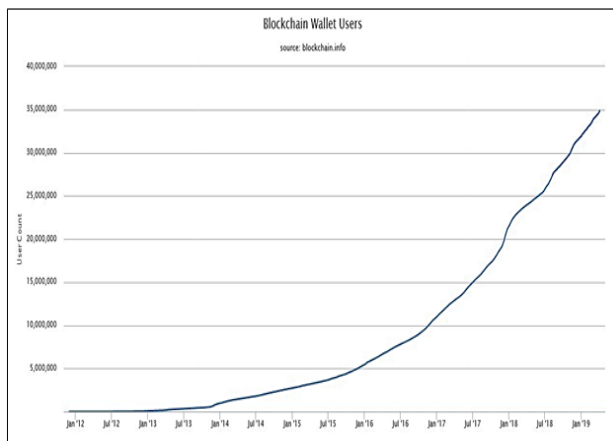


Fig 1

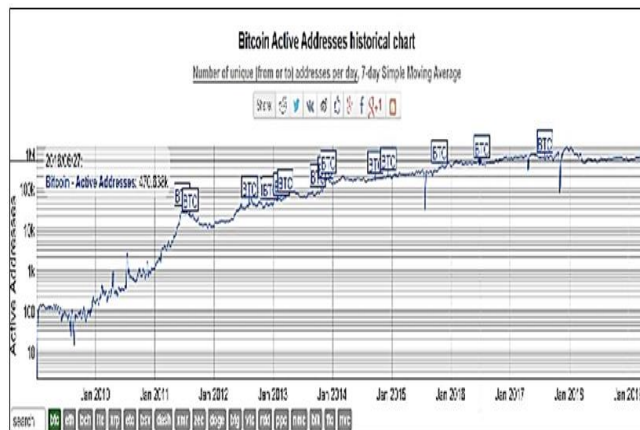


Fig 2

Thus it is not easy to calculate the exact number of cryptocurrency users, these can be calculated in a number of approximation.

The growth of the cryptocurrency can be understood by understanding the following:

- Growth of bitcoin and Ethereum wallets
- Active address growth over the years
- Trading volume of cryptocurrency over a time period
- Growth of users on various cryptocurrency exchanges over the time period

This graph shows that more than 34 million bitcoin wallet address exists on various exchanges but it doesn't mean that there are 34 million users of bitcoin because a single users can have many wallets at various exchanges. (Charts 2019).

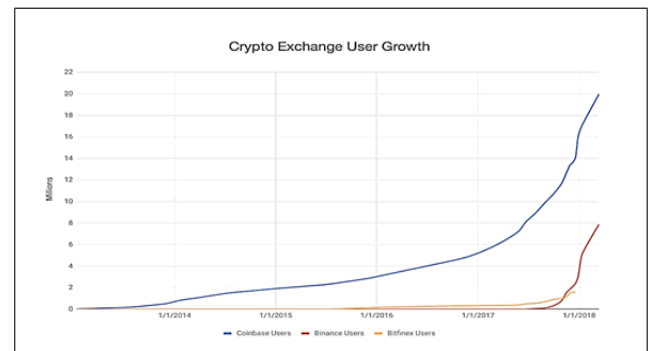


Fig 3

To getting it more clearly, we can understand it by the number of active wallets of bitcoin. This can be understood by the active wallet address per day.

The maximum number of active bitcoin wallet addresses can be said as 1.1 million. This gives an approximation about the daily users of bitcoin (Bitinfocharts n.d.).

The most of the users uses their wallet to store the bitcoin so it becomes impossible to know the exact number of users of the bitcoin. (Lielacher 2019).

By the above graphs, still it is difficult to understand the users and active users of the cryptocurrency as the above graphs give an approximate details about the bitcoin only while there is a larger number of cryptocurrency coin and tokens are in the market. Another method can be used to approximate the user growth of cryptocurrencies is to see the exchange: crypto-crypto exchange and fiat-crypto exchanges.

If we consider all the cryptocurrency exchanges trading with their fee, the following breakdown of the market share by all the major exchanges:

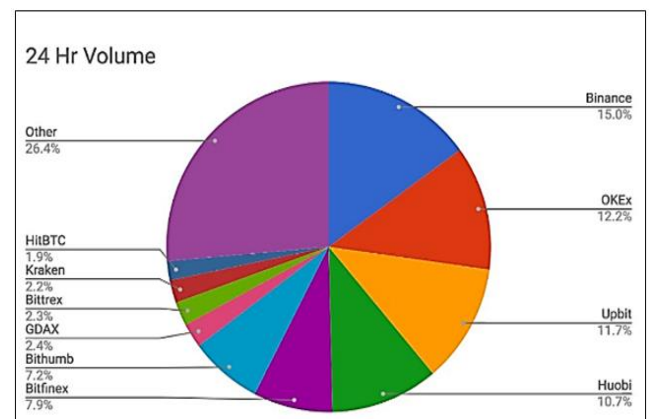


Fig 4:- Market Share of Major Exchanges in 2018

The above chart shows the market share of various cryptocurrency exchanges of fiat-crypto and crypto-crypto trading.

Furthermore, the growth in the market cap of all cryptocurrency is highly considerable as we can see this by the graphs given below:

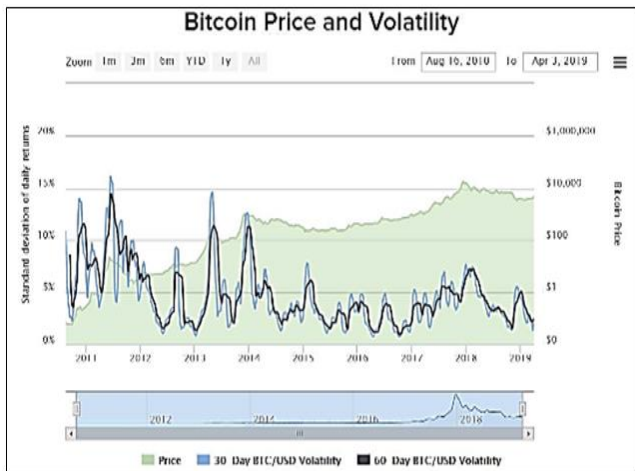


Fig 5

By the above graph of total market cap, there is an exponential growth in the cryptocurrency market which is an indicator of increasing the interest of users in cryptocurrencies. According the latest data, there are around more than 2000 cryptocurrencies in the crypto market in which the Bitcoin dominance is more than 50%.

While all these measurements are not exact count of total or active users, I would approximate the total users of cryptocurrency to be in between 50 million – 60 million worldwide. If the cryptocurrency regulates in India, there is a huge possibilities of increasing the cryptocurrency users and it will surely affect the global market in a positive way.

**IV. CHALLENGES TO GROWTH**

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. Besides the security, there are furthermore challenges in cryptocurrency acceptance which are concluded below:

**V. SECURITY THREATS**

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. This will give them the ability to create fake cryptocurrency and steal the original cryptocurrency by just changing the account balance.

**VI. FLUCTUATION IN CRYPTOCURRENCY VALUE**

Since the inception of bitcoin or other cryptocurrencies, the values of cryptocurrency is highly fluctuating. The price of a unit of bitcoin was less than 0.1\$ in 2010 while it was having a value of 17000\$ in 2017. During the inception, a high volatility has been seen in the bitcoin value. (buybitcoinworldwide 2019)



Fig 6

Many time the whale investors influence the market to getting more profits while in this process small investors or users get a loss in the value of their cryptocurrencies. This huge fluctuation in the price of cryptocurrency is also a big challenge to the users and it creates a fear in the users of it.

**VII. LACK OF INTERNET KNOWLEDGE**

Most of the develop economies in the world have regularised the cryptocurrencies as they have a good infrastructure of information and communication technologies. This leads the people to have an adequate knowledge of internet and online financial trading and activities. On the other hand, in the developing countries, the literacy rate and knowledge of information and communication technologies and it' systems is also a weaker point. The people still feels 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.

**VIII. MONEY LAUNDERING**

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. For an example, According to the Japan police, Over 7,000 cases of suspected money laundering linked to cryptocurrencies were reported to police in 2018 (Legal 2019).

## IX. CONCLUSION

show-just-how-early-the-cryptocurrency-market-is-653a4b8b2720.

Cryptocurrency offers a new effective, attractive and a cheaper model of payments around the globe that can change the future of transaction. It also enable it's users to trading, buying, selling , transferring and exchanging the cryptocurrencies in a very easy manner apart from the real money. Although cryptocurrency platforms opens new channel for online digital transactions and provide a new type of currency based on the various digital algorithms.

This increasing information and communication technical advancement in digital financial transaction and use of cryptocurrency will attractive more and more. 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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