

THE EMERGENCE OF DIGITAL CURRENCY: CRYPTOCURRENCY

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ABSTRACT

Cryptocurrency is the new generation digital currency which can be widely used for the exchange process or can be used as the digital wallet. It can be used as other medium of currency. The trend of usage of this currency is increasing now a days. The value of this is highly volatile. This was introduced for exchange purpose but it is now also used as means for investment. To date there is more than hundred cryptocurrency which is prevailing in the market. Once the exchange is done it cannot be reversed. To complete the transaction various algorithm has to be done which is initiated by the miners. For this they have high powered CPU's and graphic cards. Many famous seasonal investors like Warren Buffet, Rakesh Jhunjhunwala don't support the usage of cryptocurrency at the same time entrepreneur like Bill gates supports its usage.

Keywords- Digital currency, Volatile, Reversed, CPU, Graphic cards.

1. INTRODUCTION

The cryptocurrency is the virtual currency designed to work as a medium of exchange. They make use of cryptography to secure and verify transactions as well as to control the creation of new units of a particular cryptocurrency. Most importantly cryptocurrencies are limited entries in a database that no one can change unless specific conditions are fulfilled. Even today people have understood, banks, governments and many companies are not aware of its

importance. Fewer people know that cryptocurrencies evolved as a side product of another invention. Satoshi, the unknown inventor of Bitcoin, the first and still most important cryptocurrency, never intended to invent a currency. It seems that economists and digital innovators are divided on the role that cryptocurrencies and block chain might play in the financial system. Various countries in Asia have emerged as the leaders in the cryptocurrency space, and they're poised to become even more influential in the near future. The pace at

which the countries like the China, Japan and the Korea can successfully adopt crypto will have a significant influence on global adoption. One year after a specific pannel was set up to study and investigate cryptocurrency, the Reserve Bank of India (RBI) introduced a regulation on cryptocurrency in April to ban cooperation between financial institutions under its control and cryptocurrency related businesses. Finally, the policy is enforced as it planned. However, if we look back the past 5 years since the first launch of Bitcoin in India, we may find that the government held an elusive attitude toward crypto and there is strong correlation between the policy and the situation that the currency is in.

1. CRYPTOCURRENCY

The digital asset which is designed to work as medium of exchange that have strong cryptography to secure financial transactions, control the creation of additional units as well as verify the transfer of assets is called Cryptocurrency. Unlike other digital currency the cryptocurrency is decentralized which means there is no central bank control on its functioning. Because of the decentralized control cryptocurrency works through distributed ledger technology, most probably a blockchain, which serves as a public financial transaction database. Some of the cryptocurrency are:

a) E O S .

- b) B i t c o i n C a s
- c) Z c a s
- d) T e t h e
- e) E t h e r e u m C l a s s
- f) E t h e r o r " E t h e r e u m
- g) V e r t c o i
- h) V e r g
- i) T i t c o i
- j) S t e l l a
- k) P o t C o i
- l) N E
- m) N E
- n) M o n e r
- o) M a z a C o i
- p) D a s

2. PROCESS

Cryptocurrency is produced by the whole of cryptocurrency system collectively, at a rate which is defined when the system is created and which is publicly announced. In the case of cryptocurrency, companies or governments is not able to produce new units, and have not so far provided any sort of backing for other firms, banks or corporate entities which keeps asset value measured in it. The underlying technical system upon which cryptocurrencies is based was created by the group or individual

known as Satoshi Nakamoto. As on May 2018, there was over 1,800 cryptocurrency specifications existing. Within a cryptocurrency system, the safety and integrity is maintained by a community of mutually distrustful parties referred to as miners. Who use their computers to help validate the transactions, adding them to the ledger in accordance with a particular timestamping scheme. Majority cryptocurrencies are designed to gradually decrease the production of that currency in their future years, placing a cap on the total amount of that currency that will ever be in circulation. Compared with normal currencies held by any financial institutions or used for any exchange process, cryptocurrencies can be much more difficult for seize by law enforcement. This difficulty to derive from leveraging cryptographic technologies.

3. BLOCKCHAIN

Blockchain provides validity to each cryptocurrency's coins. A blockchain is a continuously increasing the list of records called blocks, which are linked as well as secured using cryptography. Each block generally contains a hash pointer as a link to a previous block, a timestamp along with transaction data. By design blockchains are resistant to modification of the data. This is an open distributed ledger that records transactions between two parties efficiently and in a verifiable and permanent way. For use as a distributed ledger the blockchain is typically managed by a peer-to-peer network collectively to a protocol for validating new blocks. If the data is recorded in any given block cannot be altered without the alteration of all previous blocks which requires collusion of the network majority. Blockchains are secure by design. Decentralized consensus has been achieved with a blockchain. Blockchains solve the

problem of double-spending without the need of a trusted authority or central server.

4. MINING

In the network of cryptocurrency mining is a validation of transactions. For this effort successful miners are awarded new cryptocurrency. The reward reduces transaction fees by creating a complementary incentive to contribute to the processing power of the network. The speed of generating hashes which validate any transaction has increased by the use of specialized machines such as FPGAs and ASICs which runs complex hashing algorithms like SHA-256 and Scrypt. This arms race for cheaper and efficient machines has been on since the first day of cryptocurrency, bitcoin, when it was introduced in 2009. With more people entering into the space of virtual currency creating more and more hashes the validation has become far more complex process over the years with miners having to invest large chunk of money on employing multiple high performance ASICs. Thus the value of the currency acquired for finding a hash often does not justify the amount of money spent on setting up the machines the cooling facilities to overcome the amount of heat that they produce, and the electricity required to run them. Certain miners come together with their resources sharing their processing power over the network and split the reward in accordance with the amount of work they contributed to the probability of finding a block.

5. ETHEREUM

Ether is a cryptocurrency its blockchain is generated by the Ethereum platform. They can be transferred among accounts and further used to compensate participant mining nodes for computations performed.

The virtual machine's instruction set in contrast to others cryptocurrency like BitcoinScript is thought to be Turing-complete. An internal transaction mechanism for pricing named "Gas", is used to mitigate spam and further allocate resources on the network. Ethereum was introduced in 2013 by VitalikButerin, who was a cryptocurrency researcher and programmer. Development of this digital currency was funded by an online crowdsale between July and August 2014. This system went public as on 30 July 2015 having 72 million coins initially as "premined" that accounted for about 70 percent of the total circulating supply in 2018. As a result of the exploitation of a flaw in 2106 the DAO project's smart contract software, and further subsequent theft of \$50 million worth of Ether. Ethereum was split into two separate blockchains after that – the new separate version became Ethereum (ETH) with the theft reversed, and the original continued as Ethereum Classic (ETC). Ethereum currency value touched over 13,000 percent in 2017 at the price \$1400. By September 2018 it fell to a price \$200.

6. CONCLUSION

In the era of where everything is going digitalized it high time that we rethink our notion towards such digital currency and start adopting it. It is such safer than the existing currency. Even though it is having certain draw backs. Steps should be taken to overcome the existing drawbacks and get it regulated by the financial institutions so that the public have confident enough to invest their money on the same. If the existing ones cannot be altered then new ones should be created with all the gaudiness and rules and regulations as prescribed by the government of the country so that it becomes eligible for being exchanged as a alternative to the existing currency.

7. REFERENCE

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