



Virtual Currencies: Cryptocurrency – Bitcoin

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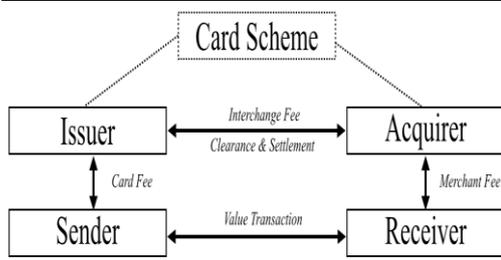
Abstract: This article aimed to express the exact meaning of Crypto-currency and its functioning, such as Bitcoin. The article enlightens the economic position and outlook, defining the capabilities to become the strongest mainstream currency. Being a fully decentralized currency, Bitcoin has overcome the limitations of fiat money. Its robust characteristics, such as low transaction costs, anonymity, investment possibilities, etc., provide value to it with the restricted supply in the market. Some economists have argued and discussed a few disadvantages like high price volatility, susceptibility to hacking, no protection from a central bank, and consumer protection. However, in the past few years, the public has shown complete trust in blockchain technology, indirectly directing Cryptocurrency and Bitcoin. Thus, most institutions have adopted and applied other currency or digital payment systems, which could have a more systematic impact on the smooth functioning of spending money in the future.

Keywords: Bitcoin, Cryptocurrency, digital currency, POW and POS, technology adoption, Blockchain.

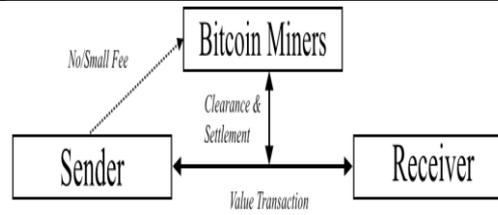
I. Introduction:

This article highlights the current market position of Crypto-currency and its journey toward success by analyzing its motives, benefits, and risk factors. A cryptocurrency is a form of virtual or digital currency that is interesting to understand and deal with. Virtual implies that the currency does not have any physical existence. Still, with the help of software technology and cryptography (coding), trading in this can be possible. It was conceivable to introduce a decentralized control system, i.e., the peer-to-peer system. In the Peer-to-Peer model concept of a decentralized communication system, the computers connected with the network can act as a server for others and do not need any central unit.

Further, it allows to transfer, contact, and develop a strong communication network between involved parties, and they are capable enough to trade on that platform. Thus, it is different from the client or server model, under which for request execution prior service request is needed to apply for approval to the server, and then it realizes the request. However, the P2P network model permits both client and the server to access each node of the available functions without restriction.



Fiat Payment Network



Bitcoin Network

Fig.1. Sender and Receiver of a Fiat Payment Network

Fig.2. Sender and Receiver of a Bitcoin Payment Network

In the early centuries, the barter system was used for trading goods and services to satisfy their needs. Eventually, paper currency came into existence with government intervention and market control. It was a centralized economic and banking system in which the government held full power to control the supply of printed units of fiat money (paper currency) in the market by the Federal Reserve System, corporate boards, etc. It also monitors the demand for digital banking ledgers. With time, fiat currencies became the only means of exchange or the sole mode of payment. It brought with it full of risks with the effect of hyperinflation, and it did not have any association with its physical reserve of it. Therefore, it never safeguarded public faith in it. Secondly, paper currency or fiat money did not possess its fundamental value. It is governed by the government body central bank, which is the sole of money circulation in the market. For solid and efficient working of an economy, the central bank circulates and maintains the money supply per the market requirement or situation. Every country has its banking system to control the quantity of money supply. Like, the central bank of the USA is the Federal Reserve, the European Central Bank of Europe, and the Bank of Japan is the central bank of Japan. Thus, to maintain a healthy economy and hold a strong position of the nation in the world market, the Central bank plays a significant role by controlling money circulation. The economy of the country is time-to-time administered by changes in interest rates, maintaining proper reserves for future needs, applying an open market working method, etc.

Thus, the fiat currency system has some limitations, risk factors, and double-spending deceitful techniques. The technical solution was introduced in the market as BITCOIN by Mr. Satoshi Nakamoto and his group in 2009. It is a decentralized form of Cryptocurrency, and new units cannot produce further by the companies involved in its dealing. This currency supply was kept restricted, so it is considered more stable as compared to fiat money cause the supply of it was unlimited.

Bitcoin was the first and foremost decentralized Cryptocurrency. Over a thousand cryptocurrency specifications came into existence in 2017. In 2014, it hit the conventional market of fiat money. Virtual currency bitcoin is considered the most secure, reliable, and efficiently ledger-based mode of exchange. The conservative dealing parties use owned computers to maintain their ledgers via timestamping scheme and are called miners. They are liable to record cryptocurrency ledgers and to preserve their security against financial incentives/rewards.

This robust digital currency highly influences the modern market, and thus, in this article, the utmost questions are to be answered to enlighten the current market position and economic growth.

- Growth antiquity of Cryptocurrency and how it captured the market?
- How does Cryptocurrency function/work?
- What do you need to know about Cryptocurrency?
- And the economic benefits of Cryptocurrency?

The study determines the significant contribution, current market position, and performance of Cryptocurrency. A review is required to be analyzed thoroughly. The article aims to enhance the knowledge of existing literature, focusing on the economic effect caused by virtual-decentralized currency.

II. LITERATURE REVIEW

1. Cryptocurrency and Bitcoin

Cryptocurrency is a modern technical concept that got attention in 2009 with its robust blockchain network connectivity and decentralized functioning carrying within Bitcoin. This technology has not yet completed a decade in the world's currency market. However, it has already attained the bursting market emphasis of its magnetism features. With the influence of its rapid market coverage, Crypto-currency was defined by O'Dwyer and Malone, (2014) as "Bitcoin and similar digital currencies are called crypto-currencies by some because the underlying algorithms and security are intimately related to digital cryptographic algorithms." At its growth stage (Ron and Shamir, 2013) came up with a statistical analysis report highlighting users' behavioral approaches to dealing with bitcoin and how it can develop a private network with accounts. As the concept was a novel mode of the payment system, it was less advertised, and the faith of the public was slow in progress. The study found that the customers involved in the dealing of Bitcoin since November 2010 and closely connected in a closed loop in the form of fork-merge structure transactions. In addition, (Ober et al., 2013, Deepika and Kaur, 2017; Srilakshmi and Karpagam 2017; Janze, 2017) did empirical research and studied the implications of the network dynamics and risk factors involved in the transaction of Bitcoin. The study discussed the payment transaction procedure involving a peer-to-peer network between users.

Most importantly, they discussed the connection between clients, and comprehensive transaction information was available to each node of the client, which protects the double spending without the involvement of any central control authority and thus for a robust network structure payment system. This study aimed to highlight the base for innovation of future payment systems and their dynamic influence. Further, a study (Hayes, 2015) discussed the need for Altcoin production and Miners' Arbitrage in Cryptocurrency Markets influenced by the success of bitcoin, which has developed the most extensive network in a short duration. Thus, it is found that the miners of other SHA-256 cryptocurrencies willingly try to transfer their title from altcoins to bitcoins because of their attractive growth and reasonable market value. There are incentives with every miner transaction converted, and bitcoins are produced per day with the conversion of every unit. Bitcoin mining yields a greater return (per day) for a miner, thus, turns to the need for arbitrage opportunity due to the bitcoin exchange. A model is developed in this paper to formalize this process of earning seekers miners to act in the right way.

In addition, a study conducted by a German university (Androulaki et al., 2013) highlighted the new concept of payment transactions to the world. The main concern was its privacy implications, as there was no centralized control over its money transaction. In this paper, they have investigated the payment security measures to be considered for applying Bitcoin as the primary mode of payment for the day-to-day businesses of a particular University setting. The study focused mainly on the bitcoin privacy element to adopt a similar concept in a university. The result of embracing the bitcoin privacy setting was that 40% of users' profiles could be extracted for the loop.

Furthermore, (Trafford, 2014; Stefansson and Lentin, 2017) also did another university-based analysis to implement an academic currency concept just like Bitcoin and Primecoin. The paper introduced the ideas of Academicoin, which successfully helped control the multiple numbers of random transactions. Eventually, it opened the door to assist their UG and PG students with projects and research work with the help of networking systems and hardware design based on proper security and design system.

As time was spent, the research changed its focus from understanding technical aspects and the security measured to economic growth concepts. A study (Garcia et al., 2014) found economic fluctuations by analyzing the relationship factors influenced by different social phenomena. The study applied vector autoregression analysis and was carried out with two positive feedback, i.e., connection network (p2p) and verbal obligation. The price bubble was affected due to the nonappearance of exogenous incentives, i.e., verbal commitment. Over time, Bitcoin and Cryptocurrency have picked up a nice hike and become hot topics of public attraction and criticism. Thus, (Iwamura et al., 2014, Gandal and Halaburda 2019, and Ametrano, 2016), the studies presented report aimed to focus on the competitiveness of Bitcoin and Cryptocurrency. The paper also discussed the potential problems in the existing currency and offered an idea to resolve the issues with an alternative cryptocurrency. In addition, the competition analyses study (Gandal and Halaburda 2016) pointed to the network influence on the promising market of Crypto-currency. The study collected data on cryptocurrency exchange rates for a specific duration to evaluate two significant aspects (1) competition between the available currencies and (2) competition between their exchange rates on trade. It resulted in the winner-take-all effects and

became the market-dominating leader. At the initial stage, Bitcoin proved its strong power over the US dollar for a particular duration. It automatically becomes a dominating currency over other cryptocurrencies as well. However, later the concept reversed.

Another interesting study was presented (Glaser et al., 2014) on Digital currency's rapid global acceptability in every economic field. The paper aimed at empirical insights presentation interest of users on digital currencies, which appealed as an asset. It strongly indicated that predominantly random users who did not have much knowledge are adopting the digital currencies concept.

Yee (2014) discussed Bitcoin features and emphasized the non-dependency for third-party trust and its consent. The purpose of the study was to evaluate economic and regulatory challenges and available prospective benefits of bitcoin to the economy. To find the answer, the first conceptualized study has been conducted on its ecosystem based on the layered model of internet architecture. Further, the study stated the control points and provided a specific procedure to function the layers in the presence of internet governance efficiently. Lastly, it concluded the emergence of government intervention to safeguard society and enhance the Bitcoin benefit.

On the other hand, another study (Malloy, 2015; Nabilou and Prum, 2019) highlighted the legal and regulatory emergence of Cryptocurrency and Bitcoin to safeguard its trading and public interest. The paper forced for the immediate implementation of the legal framework requirement of bitcoin. The Bitcoin cryptocurrency market's growth stage was more concentrated on economic development, growth potential, and limitations. The study was conducted on the security point and legal framework (Taran et al., 2015; Wisniewska, 2016; Fetisova, 2018; Verzhovsky, 2018) to highlight the importance of Crypto-currency in the present economy. Secondly, it analyzes the benefits and limitations of providing legal status to this money in Russia and abroad. The views are scattered on the safety of digital currency; however, the majority trust its authenticity and consider it a future electronic payment mode.

The study presented the expression of digital currency importance (Iwamura et al. 2019; Kurihara and Fukushima, 2018). They reported the technical aspects (engineering) and its security designs to study market price fluctuations vs. the restricted supply of bitcoin. The report also suggested, for its unstable economic position, the need for current monetary policy to provide stability to bitcoin value, but without the central bank's intervention. Most interestingly, Bitcoin gained a good market space and became a hot topic of discussion. Two parallel currencies are in circulation (Sauer, 2015). Central Bank is facing competition due to bitcoin, which is a matter of concern. The study aimed to analyze the central bank incentive system by applying a network model which also considers hacking risk. It discovered the reason for the absence of incentives in the central bank system.

Decentralized bitcoin holds its proper management by Blockchain, which is its strength (Hardle and Trimborn, 2015, Tomas and Svogor, 2015, Scott, 2016, Macdonald et al., 2017). The study has evaluated blockchain technology and its based currencies. The study discussed the positive future of cryptocurrencies in every field of the economy. Their report also described the Nobel Laureate Hayek's idea that some companies had already adopted concurrent currencies, which seemed back a long time. However, the vision got real-life existence through the invention of the Blockchain. And that's why they concluded that Cryptocurrencies have a dynamic economic future. In a study (Herbert and Litchfield, 2015), it is found that cryptocurrency blockchain technology perfectly safeguards software piracy and software copyright by applying decentralized peer-to-peer software license validation.

Cryptocurrencies and Bitcoin have attracted an entire market attraction globally since its initial stage, so a regional study (Dokic et al., 2015) conducted in the European sector to evaluate the relationship between the Cryptocurrency value (Bitcoin) and interest in it in the Region because European union the government accepted the Cryptocurrency as a legal under its liberal monetary regulations. To study investigated 11 South-East Europe region countries on the relationship value of bitcoin and expressed interest variables. The analysis applied the Google trends tool and Spearman's rank correlation between the said variables. Found a positive, strong relationship between them. Another quantitative digital business models-based study (Kazan et al., 2015) forced value creation in cryptocurrency networks. Cryptocurrency brought revolutionary economic growth and resulted in the rise of diversified and dynamic start-ups, which attracted a healthy venture capital generation. Thus, the study aimed to investigate via digital business models how cryptocurrency companies constitute value within the bitcoin network. The study results with three modes of value formations. 1) Commercialize business Model, 2) Configurations and digital business models, and 3) a taxonomy of digital business models for bitcoin companies. Abramowicz (2015) discussed a unique funding model for a cryptocurrency. With the help of software miners, wasteful mining activities and fake autonomous markets can be controlled. It restricts the out-of-

the-way earnings of the miners. Another exciting study came up with a specific option (Alwen et al., 2015), which changed its focus from POW to POS by giving some Spacecoin and more disk space to the honest miner while developing the block. By adopting POS, the study concluded two main concerns, i.e., Grinding: The simple miner, while adding the next block, will enjoy some degree of freedom to design the appearance of the chain as per his vision by selective transactions in his coalition. The miner can develop his loop with the snowball concept to continue the chain. Mining multiple chains allow rational miners to extend their interest in another potential blockchain. In this way, rational miners can earn some unexpected large rewards.

Brenig and Muller (2015) studied that cryptocurrency-based schemes are to be the workout for improving the economic situation. So that some means could be generated for the efficient payment mechanism and investing opportunities for business enterprises within the central bank system on the other side (Polasik et al., 2015), presented practical and theoretical phenomenal aspects of the new innovative digital payment revolution in the market. The paper aimed to throw light on the unique concept of bitcoin payment and investment features and its practical consequences at the online business level—the investigation based on finding the cause of its adoption and price formation. Bitcoin returns are due to their popularity and sentiments expressed in the market reports. The study concluded that a company's features, which use both fiat and digital payment methods, directly depend on the understanding of Bitcoin and the economic status of that company.

Of the rapid growth and involvement of Bitcoin users (Khairuddin et al., 2016), an exploratory study was conducted on 9 Bitcoin users to evaluate their practical experience and their motivation in dealing with Bitcoin technology. The study ends with the three significant motives influencing buyers' interest in bitcoin: the monetary revolution in the market, colossal empowerment, and their vision of the real value of Bitcoin currency.

A diversified (Pathak and Nanded, 2016) study to express the possibility of cybercrime and ransomware challenges attached to bitcoin because of its decentralized system and online activities. Innocent users are the soft target of cybercriminals due to their lack of knowledge. Therefore, the paper discussed its functioning and user preventive measures. On the other side, another quantitative study was conducted (Dyhrberg, 2016) by applying asymmetric GARCH methodology to calculate the hedging capabilities of bitcoin. The finding was positive, i.e., bitcoin can be used against hedging stock.

An applied study based on the No-Cloning Theorem of Quantum Mechanics involved (Jogenfors, 2016) to develop Quantum Bitcoin as it runs on quantum technology-based computers. The study stated that "Quantum Bitcoin protocol has several advantages over classical Bitcoin, including immediate local verification of transactions." The advantage over traditional bitcoin is that it reduces the footprint and increases efficiency.

With time passage cryptocurrencies have been successful in developing market trust in users. (Kim et al., 2016; 2017), The study analyzed the fluctuation trends in Cryptocurrency transactions in sight of a specific method used for such online activities. Furthermore, another study examined two variables of Cryptocurrency, the user price of 3 major cryptocurrencies and their number of transactions. Thus, the need arises to evaluate the risk factors involved in the blockchain network (Tama et al., 2017; Miraz and Ali, 2018; Haq and Hassan, 2018). However, most studies were conducted to explain Blockchain's functioning mechanism rather than its threat involvement. Their study emphasized the importance of understanding the risk level tied to Blockchain. In an investigation, Open Source Intelligence (OSINT) is a technique (Sari and Kilic, 2017) applied to judge the miner's capabilities. The study was conducted to explain that miners' critical information can be extracted by using OSINT in the network. So, Cryptocurrency carries some risk.

An analysis found the influence factors between traditional assets and Cryptocurrency in the global market. The study considered traditional assets for investigation as commodities, foreign exchange, stocks, and financials and was transmitted to the cryptocurrencies (Kurka, 2019). Besides, the study found a significant positive asymmetry between new digital currency and traditional assets. The finding is opposite to the previous literature findings.

Bitcoin is at its most productive stage (Szetela, 2017). Therefore, it is also facing some instability challenges being the strongest among the other 600 cryptocurrencies available in the market. Here the evaluation applied Control Charts to study the price fluctuation of Bitcoin and did a comparative analysis between 1) BTC and USD exchange rate and 2) Euro to USD exchange rate fluctuation by applying control charts analysis tool. The result has shown that BTC Vs. USD exchange rate volatility is strongly

affected by unexpected price jumps (2010–2016), an act that significantly distinguishes it from the more stable and predictable comparison of EUR Vs. USD exchange rate variability.

Furthermore, another study (Szetela et al., 2016) describes the relationship between the bitcoin exchange rate and between principal global currencies (Dollar, Euro, British Pound, and Chinese Yuan and Polish zloty). The study evaluated the relationship between the conditional mean and variance with the ARMA and GARCH models. GARCH models reported, based on the conditional variance, that there is a moderate dependency between bitcoin and US Dollar, Euro, and Yuan. In contrast, ARMA analysis reported no relationship between bitcoin on other dependent variables.

Bitcoin proved herself as the market leader (Bhosale and Mavale, 2018). However, a comparison study was conducted to evaluate the instability level between Bitcoin, Ethereum, and Litecoin. The study monitored successful growth trends and the positive future of Cryptocurrency. Bitcoin is the leading one.

Nadeem, 2018 discussed the entrepreneur's attraction toward new digital currency, which came out in the Pygmalion Effect. The study examined three main questions: (1) Bitcoin's marketing can gain a sustainable power to build it as a currency for daily transactions. (2) Bitcoin scale to can become a major payment network on a global scale? (3) can Bitcoin be replaced by multiple viable crypto-currencies? The study explored the entrepreneur's Pygmalion effect towards adopting Bitcoin and its impact on International and domestic consumer privacy, purchasing habits, and business relationships. The study contributed to the existing knowledge in the field of Bitcoin technology. In addition, the study suggested that bitcoin has got its market value because of the entrepreneur's Pygmalion effect and customers' beliefs. The study guided the areas which are unfolded and yet to be researched, i.e., "how crypto-companies need to build their special message and project it into the larger blockchain conversation for social entrepreneurs. Key implications for researchers, practitioners, and policymakers are highlighted."

Bakar and Rosbi (2018) conducted a statistical study and applied a weighted moving average tool to forecast Bitcoin's share price. The prime aim of the study was to estimate the exchange value of Bitcoin by using said statistical tool on the selected date set. Further, to evaluate the validity of the forecasting model, mean absolute percentage error (MAPE) was calculated. Results indicated the error % less than 1, so the tool adopted was considered a reliable forecasting method for the Bitcoin exchange rate.

A comparative study (AlAhmad et al., 2018) emphasized the related factors of POW and POS concepts of Cryptocurrency. For the last eight years, Cryptocurrency seeks the global attraction. It was a revolutionary change in the digital money market. Bitcoin functioning depends on the miner's coding algorithm, i.e., "Power of Work" (POW). However, the scenario got the change in January 2016, with the new currency "Ethereum" circulation in the market, which was based on a little liberal mining concept of "Power of Stake" (POS). Thus, the paper unfolds and presents exciting features of digital money's POW and POS systems, which helps to judge investment decisions.

1.1 The procedure of coin creation by Miners and its transactions: Proof-of-Work:

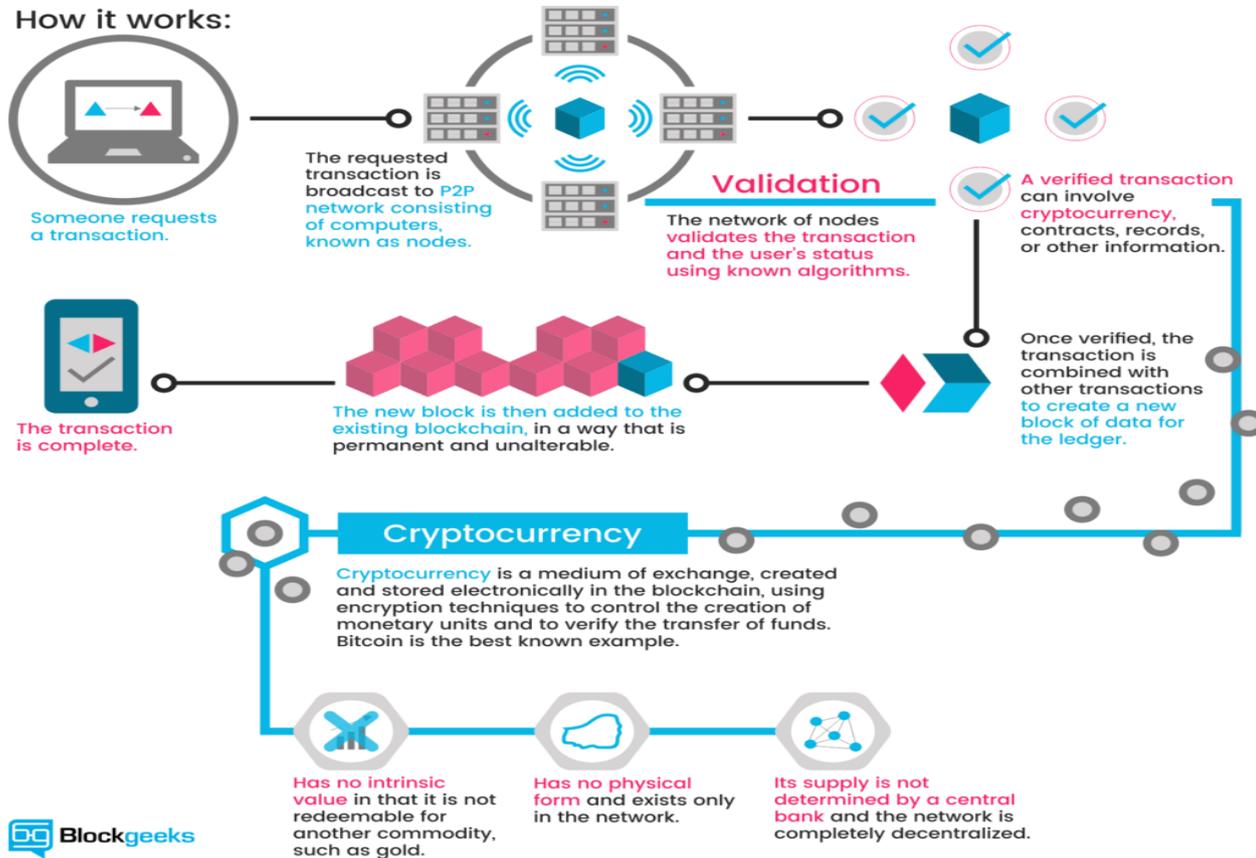
The functions of miners play the most active role in the proper execution of the Bitcoin transaction. As the functioning is kept decentralized, one can be a miner. Because of the absence of any control authority, every miner must check for efficient functioning and task management by themselves to avoid any counterfeit transaction by any peer. Thus, they follow a particular mechanism to build a strong Bitcoin transaction capacity. To give it a sound base, the inventor, Mr. Satoshi, defined the rules by which miners are involved with their computers to generate cryptographic functions for every task. For effective functioning of Bitcoin peer's network connection is the most crucial key. Once every peer in the loop gives their approval, only the transaction can be completed, and they are used to maintain the ledger records for every transaction. This function is known as the Hash Function to develop a new blockchain with the help of coding. This way, a unique miner connects via Blockchain with the pioneer miners. This complete concept is Proof of Work.

It is recorded as a simple ledger entry of accountancy like "A gives X bitcoin to B," and A's private key will sign this record. This technology is known as peer-to-peer when it gets approved and signed by the giver's peer. Gaining the confirmation of peers is the most critical part of Cryptocurrency. Without an implied warranty, the transaction is forged and turns as a stone once confirmed. Thus, it cannot cancel and invert back. Now it has become a complete transaction and, ultimately, a strong Blockchain by connecting every node to its database. The miners can only give the final transaction confirmation, which is their main job in

cryptocurrency-network as miners. The transaction can come into the network after the miner's stamp on it to give it a legal network position. Miners enjoy some token of Cryptocurrency (bitcoin) as a reward for their services. In short, miners play the most critical role in the efficient and nonstop networking of cryptocurrency-network.

1.2 POW schemes:

The proof of work scheme was the first timestamping scheme, which became the base of SHA-256 and script. Eventually, it became the market leader of cryptocurrencies worldwide with the execution of 480 confirmed blocks. CryptoNight, Blake, SHA-3, and X11 are some more POWs that work by hashing algorithms.



Source: <https://blockgeeks.com/guides/what-is-cryptocurrency/>

1.3 Blockchain:

Just like we construct a house by adding brick by brick, the concept of Blockchain got developed by accumulating every block and maintaining its every record with the help of coding to have a valid blockchain of Cryptocurrency. The blocks are internally connected with a hash pointer between the two minors/peers (existing and new) and hold timestamps and transaction details in the records. Once the transaction got completed, it cannot reverse or modify. Thus, the blockchain concept comes out as a secured design and efficiently works in its decentralized network system.

Moreover, with the implementation of Blockchain, the issue of double spending in fiat money under a central server got solved.

The average time required by any network to develop every block is known as block time. That is when the transaction got acceptance by every peer involved in the web and acquired data verified. On the money transaction accomplishment, the total time involved is considered as the time of block completion. So, when the short time invested in developing a block meant fast transaction movement. Cryptocurrencies serve multiple schemes of timestamping. In this way, the involvement of the third party can be restricted to maintaining the records in the blockchain network.

1.4 Proof-of-Stake and Combined Schemes

The proof of stake scheme is different than the proof of work scheme. However, sometimes cryptocurrencies apply a unique combination of both POW and POS schemes. In this proof of stake scheme, users are requested to show their consent on the

specific amount of current flowing in the secured network of Cryptocurrency. It functions based on hashing algorithms to validate electronic transactions. It depends mainly on coins, and its functioning is different from POW.

1.5 Economic Status of Cryptocurrency:

The cryptocurrency concept is a privately owned concept that became popular with its distinct feature of a decentralized networking system, i.e., with government intervention and control. The complete transaction is via the internet based, with the help of the miner's private key. The concept is a novel phenomenon in the world market yet to be explored utterly. At this initial stage, it is hitting the existing currency market with its attractive features and showing its high potential. Its total market capitalization share is more than 278 billion USD, and its record-high daily volume is more significant than 500 billion USD.

The world market has successfully adopted the innovative but economically disruptive Cryptocurrency due to its attractive features and revolutionary growth potential in the present market situation. The digital currency has changed banking and financial institution work. Bitcoin was the most potent currency among all other cryptocurrencies launched in 2017. It got famous due to the simple digital transaction between two parties, i.e., peer to peer concept, which is not dependent on third-party involvement. Secondly, the trades are secured enough and posted just like ledger entries under a specific Block which is digitally recorded. For every new transaction, a unique block is created, internally connected as a chain with the help of a hashtag. It is highly secured, and the details of parties who are connected to the network are not disclosed.

Most importantly, financial tracking is only possible when the actual cash gets converted into the loop. This most straightforward, highly secure transaction mechanism brought the biggest revolution in the banking sector across the world. Government and financial institutions are facing high competition with the growth rate of Cryptocurrency, and they are thinking of launching their Cryptocurrency.

III Conclusion:

In a brief duration, Cryptocurrency has become the international market leader and led to the emergence of new markets of virtual currencies like Bitcoin and Ethereum. It got a warm welcome and successful acceptance, although any central unit does not control it. Internet-based calls have complete security and technical support to manage effective and efficient functioning. As it is a decentralized currency, it would not attract much transaction cost and third-party trust, practically raising the innovative cryptocurrency concept superior to the traditional money market. The current growth chart shows the high future potential of Cryptocurrency, which is yet to be utilized.

In addition to economic growth, the legal status of cryptocurrencies varies significantly from country to country. Some countries have openly permitted to deal in this new digital currency. However, some countries have restricted and prohibited its trading. Every government and country has its viewpoints and has classified bitcoins differently. In early 2014, China Central Bank banned the trading of bitcoins. On the other hand, Russia accepted that cryptocurrencies are legal instruments but restricted its dealing in purchasing goods except in its currency, i.e., the Russian ruble.

The cryptocurrencies phenomena have achieved remarkable success, but their future is still debatable. However, its growth rate and market coverage have proven its potential, and sustainable features, which are Blockchain-based, brought the trust of familiar people. Some economists, however, argued it was an early dot-com bubble that got nose-dive into the financial market. Some consider it a positive technical change that can benefit the global economy on a broader scale, as evidenced by Japan, which has seen cryptocurrency adaption reach its peak in 2017.

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