THE IMPACTS OF BITCOIN ON THE FINANCIAL MARKET

By

SAIYER SAEd ALJAED

Assistant professor, Economics and Finance Department

Faculty of Business Administration, Taif University, KSA.

sssaljaed@gmail.com

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Dr. Mahmoud Ahmed Gad

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Abstract

This study presented a literature review on the main issue associated with the impact of Bitcoin on the financial market and the new technological development that has reformed market interaction within society. Currently, the usefulness of digital currency has expanded financial trading. Bitcoin is considered the most significant global cryptocurrency due to its significant market recognition and technological nature. Although various studies have explained the merits and demerits of Bitcoin, most studies emphasised its influence and relationship with the financial market. Hence, this study also addressed this gap. An instrument and concepts were provided to comprehend the dynamics of Bitcoin and determine its function in the financial market. Moreover, the global meaning and function of Bitcoin were examined. Virtual and previous literature reviews highlighted a strong relationship between Bitcoin and the financial market with other cryptocurrencies. Summarily, Bitcoin is still in the early stage and needs to be developed through technological growth.

Introduction

Technological advancement has changed the way economic agencies interact within society and market or demand and supply. Consequently, virtual or digital currencies are popularly used and more acceptable in financial institutions as a means of transaction in the market. Bitcoin denotes the most significant global cryptocurrency following its high recognition in market capitalisation and technological foundation. Numerous studies have investigated the merits and demerits of Bitcoin but only a few have examined its influence, dynamics, and function in the stock exchange market. Bitcoin is an innovative digital technological advancement that could change the method of conducting banking systems and other economic aspects. Millions of people can be elevated from these newly-formed markets to a modern, digitalised, and integrated system of

acceptable transactions (Vigna & Casey 2015:4). The current technological development has transformed the globe and the process where interaction occurs among other economic agents, such as the transaction methods using current technologies. Today's purchasing and selling transactions are performed through the Internet using concepts, such as electronics business, e-business, virtual money, and e-commerce are frequently used in society. Users can conduct transactions using Bitcoin as a speculative hedging and investment opportunities in the financial market. Any currency can be used by the people in Bitcoin transactions and sent to other people via a mobile application or their computer system. These methods involve transacting digital cash without identification of buyers and sellers with only their wallet displayed. The importance of Bitcoin is characterised by all digital currencies and an advanced discovery of technological infrastructure, which engages blockchain computing with the same effect as the Internet on traditional computers. The use of blockchain operation is unique as entire copies of the system can be observed continuously in thousands of computer systems placed anywhere. Nevertheless, no exact Bitcoin will be traded among the parties on the maturity date of the contract. Almost all financial analysts believe that the availability of Bitcoin-derived products in regulated trading would finally eliminate the instability of Bitcoin prices and predict the class of assets that will continuously develop into financial instruments.

Literature Review

The understanding of money is not invariably associated with the concept of currency but depends on traditional and social systems and individual need (Malone, 2014). Money denotes a medium of exchange generally accepted as payment of goods and services or settlement of debt with the primary functions as the medium of exchange, a unity of account, and a reserve value. Money must be assured or certified by legal tender unity, which is one of the functions of the government through laws and other bodies. For instance, a central bank of a country and monetary policy that regulates money control. Several studies and economic experts described Bitcoins as money, which may not be dependable considering the accurate description of money.

Bitcoins were first introduced in 2009 by Satoshi Nakamoto and have become popular since its launch. This cryptocurrency is perceived as an exception to the primarily used advanced digital asset, which could replace the traditional transaction system. In 2020, approximately 500,000 Bitcoin transactions were performed daily worldwide, which displays a high potential for continuous development. Bitcoins are based on a decentralised digital currency, which was primarily introduced in the financial market by a group of people. This type of virtual currency is free depending on the national regulation. Bitcoin can be anonymously used among people with convenient international transactions using a virtual bank account popularly called a "digital wallet" in the cloud storage or on a client computer system (Briton & Castillo, 2013). Ideological Bitcoin is a peer-to-peer conversion or technique among users without any internet diary among users and without a third party (Smithing, 2002). Most citizens have become familiar with the "cashless method" but the situation does not indicate that society is experiencing a shortage of money in the circulation system. Cash remains the medium of exchange in all forms of financial trading systems. The number of agents using virtual cash has increased. Ranch and Hillman emphasised that the present cryptocurrency users are estimated yes estimated to range between 2.9 million to 5.8 million with at least 1,876 participants engaged full-time in cryptocurrency industries (Ranch & Hillman, 2017: 8).

Research Methodology

The secondary data used in this study include articles, books, and internet sources. In this manuscript review, the most significant Bitcoin studies were included to explain the critical functions of this digital currency on the financial market. A descriptive analysis of the key objective was examined, which explains the impact of Bitcoin on the financial market. The study aims to investigate the dynamic price nature of Bitcoin, economical and efficient aspects, and Bitcoin as a currency vs. asset. Moreover, the relevant information related to the stock market, bond mark, overstock, and derivatives was also examined. Qualitative analysis was employed to achieve the study objective.

Stock market

A recent finding by Nautilus investment research indicates that a greater rise in the value of Bitcoins also results in a similar surge in the stock price (NIR) it means Nautilus Investment Research. Moreover, the S and P 500 have experienced a higher increase in a similar routine as Bitcoin. Positive relationships occur between Bitcoin prices and stock prices. Several studies discovered that whenever Bitcoin value increases to 30% in a month, the value of many other stocks subsequently rises. Therefore, the success of Bitcoins produces a positive impact on stock prices in three institutions related to Bitcoin. The factors that predict the relationship between the stock exchange and Bitcoin are the digital and illustrative analysis of the related value. The findings focused on the feature of Bitcoin and basic stock exchange indices, America US dollars, euro, pound sterling, and other cryptocurrencies and main commodities. The data required for this illustrative analysis can be divided into three transactional sections: the investment commodities section, Yahoo Finance section market, and cryptocurrencies. The basic world source of financial inclusion on the Internet web is characterised by financial information, investing education, and retirement strategy. This literature review investigated the impact of Bitcoin on the financial market. Data on stock market function is presented in various media ranging from business periodic, the Internet, newspaper, publications, television, and radio. For various investors, coverage from the economic or financial perspective adequately explains the main reason.

Bond market

The significant value of Bitcoin is influenced by major forms of institutions, such as investment banks, government policies, and hedge funds. A Japanese financial information source was recently developed to motivate the creativity of a bond that is supported by Bitcoin. In recent years, fiasco released their foist three-year bond to another group within their company as an internal test with a specific price, which was 200BTC (equivalent to $206,701) with a certain percentage of the annual rate and will be returned in Bitcoins if it reaches the maturity date. Dan Doris stated that the Bitcoin bond brought digital currencies

into the globe of high finance. According to numerous researchers, several institutions now have the chance to reserve value by using digital currency with the aid of Bitcoin-backed bonds, which have become more accepted by the people regarding payments. A sound-advanced bond market is a significant source of long-term funds for the lender and borrower, particularly fund managers with great investment opportunities. Bond financing is a significantly more effective and efficient process than indirect financing, which provides financing with a lower spread between the lender and borrower's interest rate. The American market is the global lending bond market giving funds to many borrowers starting from the US treasury to companies without a credit rating. The Australian bond market had many borrowers several decades ago but an issue with non-government bonds drastically increased the market, thus reducing government bonds.

Nvidia

Nvidia has been one of the successful microchip makers listed in the S & P 500 index of US stock for the past two years. At that period, NU DA yes typo experienced a surplus price gain of approximately 57% with the price based on trailing income for the past year almost double that of their peer in the company. One major reason for their success is the increasing demand for graphic cards used to mine cryptocurrencies.

Overstock

In 2014, overstock.com was the first significant retailer that started trading with Bitcoin for transactions where the company established a small division focusing on blockchain technology. This developing company is **Medici ventures**, which made a record of $500 million via digital coin offering and the overstock rise to influence their share price by 25% over the last two years. When an investor or a company experiences a stochastic request in measure and means, a person requests abundant resource management, including the adaptation to limitations and the capability of the supply chain. This situation is in line with the requirement volume size and time.

Square

Square is a mobile transaction processing company that started accepting Bitcoin payments almost three years ago. The company also increased its share price by about 25% over the last couple of years. In early November2017, the company began accepting their square cash app customers to experience buying and selling Bitcoins. Consequently, their stock soared 22% within a day but significantly declined to 16% in the following week. The wide range of takeover pressure influenced issuers who are more likely to assign investors considerable blocks of price discount and dividends. The situation also encouraged issuers to provide more shares with relative investors, such as managerial investors.

Derivative

The derivative market has two main derivative instruments: future and options. They it refers to both future and options are also known as forward contracts with a difference in the financial market, which involves alternative sources of trading financial instruments, such as bonds and stocks. They it refers to both future and options are well known for speculating on the movement in economic variables and hedging market risk. After the creation of Bitcoin-back bonds, the derivative instrument is in the process of being recommended for Bitcoin future. Based on the journal, the global second-largest stock exchange Fitzgerald & co along with Nasdaq anticipates including Bitcoin future among Nasdaq future exchanges in 2018. This inclusion allows different investors from the traditional finance sector and stock brokerage to transact with Bitcoin. If this process becomes successful in initiating Bitcoin future, other exchanges will significantly set off to start dealing with Bitcoin. Nonetheless, based on their information release, the Chicago Mercantile Exchange (CME) intended to initiate Bitcoin future in the last period of 2017. The difference enlisted by the world's most significant and various derivatives public place is transforming to cash transaction. The transaction of Bitcoin future will focus on CME'S Bitcoin relation rate, which is a once-a-day relation rate to the USA dollar value of Bitcoin. Moreover, the Chicago board options exchange plans to initiate Bitcoin futures.

The CBDE and CME Bitcoin futures expect regulators' approval when the news was reported on their Bitcoin future on October 17. Nonetheless, based on the latest information released on December 11 by the journal report, CBOE and CME Bitcoin futures are authorised by the US Commodity futures trading commission. This notice highlights the beginning of the future of Bitcoin on CME Group and CBOE world market inc. in the following weeks. This achievement is significant in the history of digital currency, which will ensure easier transactions of Bitcoin for small banking and investors. In the history of financial markets, Bitcoin transactions began under US federal regulation on a wide scale. This situation legalised the establishment of Bitcoin trading transactions to a broader group of investors and traders who are not interested in buying Bitcoin on private exchanges.

Forex market

The Forex market is similar to other financial markets. Bitcoin also impacts the trading patterns in the foreign institution souk with an additional attractive feature of currency trading. Numerous forex brokers are currently accepting Bitcoin for currency trading. The trading feature of forex has a similar operating system to standard forex trading. The additional steps to follow include the trader needing to purchase the undertaking asset, which is the Bitcoin base, hence becoming the direct holder of the digital asset. Secondly, Bitcoin can be traded in the forex market by transferring to the broker's Bitcoin wallet using private keys.

Benefit

Firstly, Bitcoin is free from global limitations where these types of transactions have been free from world boundaries. Users from any country can transact with forex brokers of any country. Regarding transactional security and cost, Bitcoin trading has many advantages where users do not need to display their bank details before depositing or withdrawing money. The broker costs are extremely affordable among the forex brokers. Lastly, Bitcoin requires a small amount of deposit. Most Bitcoin forex trading companies are required to deposit as little as USD 30 as the deposit amount.

The database

A blockchain database is a network of participants, in which every participant safe its own duplicate information, improving to increase term for blockchain technology development: disbursed ledger technology (DLT). The fundamental element of disburse ledger technology networks are as follow: a agreement mechanism, employed to verify transactions, visual ledger and an interchange network operators. In general perspective, the terms disburse ledger technology and blockchain have been employed interchangeable in pose paper and many means of communication, though DLT observed by majority to be a more general term.
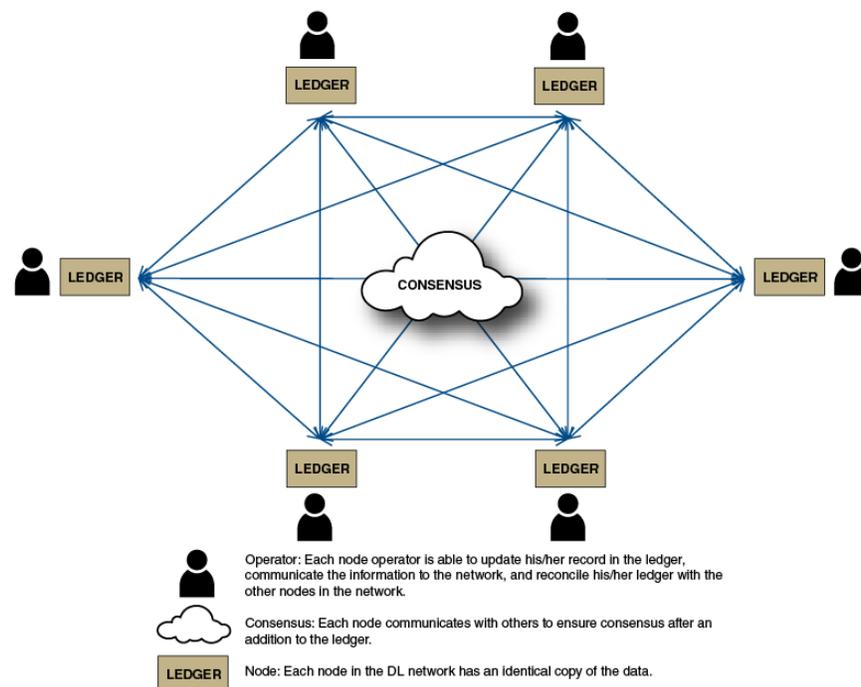

Figure 1 Disbursed ledger (DL) arranged

Source: Financial Markets Group, Federal Reserve Bank of Chicago.

As the involvement of industry engages in enhancing bitcoin and technology, it is defined both blockchain and bitcoin technology as a crucial of new approach system to database infrastructure. Basically, it is a development higher than, generally, databases are planned and employed in the past. General database is a great collection of data information designed for research development and feedback. There are many ways of arranging data, traditionally, the extensive number of databases has been comparatively saving date in a tubular form that participants can be refurbish and search. Comparatively, databases are focused with a principal duplicate manage by a central main authority. Participants displays a database ought to have confidence in the central authority to keep the records correct and control the technological framework required to prevent loss of data from equipment failure or cyber-attacks that may occur. This principal authority constitutes an only point of failure, when the main authority is unsuccessful, the database information lost. This based on participants' trust in each other, if participants do not trust each other beside they must have separate databases which they periodically settle.

The main components of the blockchain or bitcoin foundation ledger, these that will warrant future greater benefits, are the disburse nature of the ledger unchangeable character and existing of agree consensus mechanism. All of these markets are feasible to operate automatically in controlling the transaction given a real -time arrangement while keep going the standard and control to prevent fraudulent. These advantages do not rely on the particular technical application of any specified bitcoin application will persist to worked out in the nearest future. Nevertheless, extraordinary perspectives of how both bitcoin and blockchain operates continue to improve dialogue about the capability of application of blockchain and obstacles that may come up.
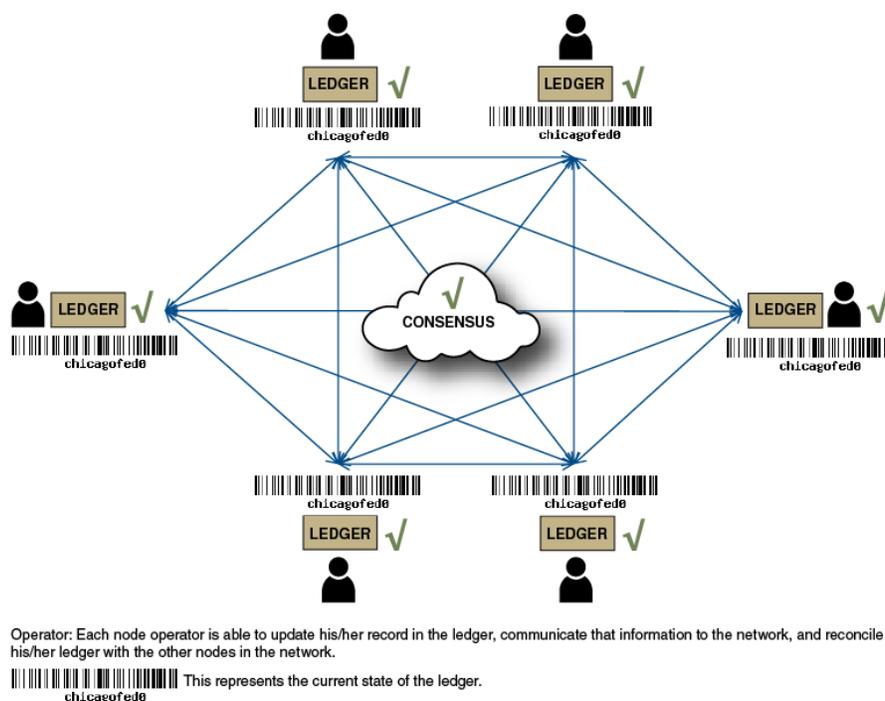
Figure2. Disbursed ledger (DL) network channel –All records are updated

Source: Financial Markets Group, Federal Reserve Bank of Chicago

A simple disbursed ledger

A simple disburse ledger in a trustworthy system, every participant is literate to the database and every participant's duplicate is updated to indicate a new status after transaction has been confirmed via previous stipulated agreement mechanism (view figure 2). Immediately a transaction is completed, it is not possible altered or changed. In a given example in figure 2, every intersection of operators has a similar description of the ledger. Suppose every version of the ledger is not different, agreement is obtainable, and the records are closed.

If a various number of blockchain network are involves in a transaction, the transaction will be submitted to the networks (check figure 3). The hang in the successful submission of the new transaction affects the ledger that is now contrary with the condition of duplicate of another ledger. Immediately, the fresh

transaction is detected by the server, the agreement voids imposing on other operators to whether authenticate and update their records with the recent change or abandon the new addition to the ledger (figure 3).
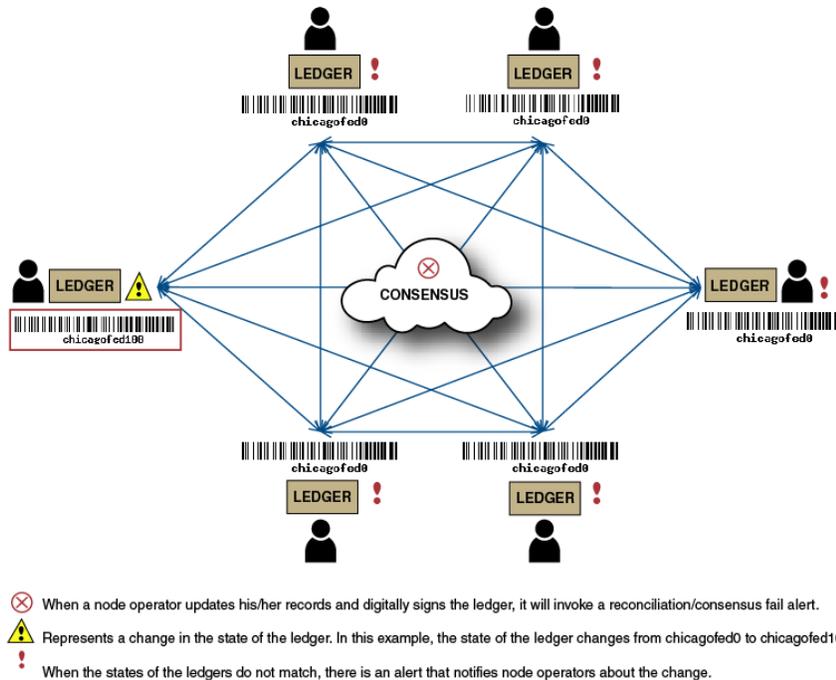

Figure3. Disbursed ledger (DL) network channel–New record added and state changes

Source: Financial Markets Group, Federal Reserve Bank of Chicago.

The transaction will be confirmed as valid by consensus mechanism. There is a different way of attaining consensus on a blockchain. At this level, it is very significant to comprehend that a blockchain must have a mechanism in which users accept to alter within the ledger. Currently the consensus is admitted, all ledgers are bringing up to date to indicate the new state (figure 4).

How the transactions summed with a blockchain

At its necessary fundamental stage, the transaction process on a blockchain or bitcoin is easily indicated an alter in the owner registration of an assets. The channel via which transaction is generated and attached to the bitcoin can be observed in figure 5. For instance, if Mr. A transfer an asset to Mr. B, it is obligatory to discover if Mr. A is the truth owner of that particular asset. It can be achieved by quoting the previous transaction in the blockchain and verifying that at some extent, Mr. A received the assets and hold it for a while. Immediately, this is done Mr. A and B can reach an agreement to the transaction (step1). Mr. A block is generated with the main information of the fresh contracts (step 2). After then, Mr. A and Mr. B reach agreement to the contracts by summing up their special, visual signature (step 3 and 4). Immediately, the two parties have endorsed their transaction, a cryptographic hashing is estimating which will be employed to connect with this fresh transaction to the chain of the last transaction (step 5). The cryptographic hashing is a cord of character related with a specific blockchain which is hard to estimates but simple to confirm. These enable the participant to verify a valid block, but hard to qualify and enter into the chain a block accounting illegal transaction. After the transaction has been confirmed, employing the bitcoin's consensus mechanism (step 6).
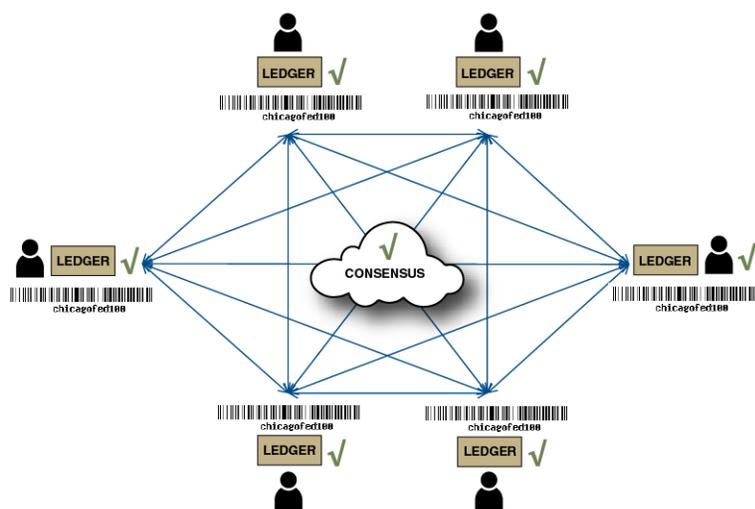
When all node operators agree to the change and consensus is reached, the entire network will update their own ledgers. This ensures the immutability of records for network participants and end-users.

Figure4. Disbursed ledger network correction and consensus benefited

Source: Financial Markets Group, Federal Reserve Bank of Chicago.

After confirmation, the transaction is included to a block of present transaction. This block is chain to the past blocks of transaction via quoting to the current generated block in the chain. The update blockchain will then be transmitted to all users within network therefore; each has a device duplicate of principal ledger.

Unauthorized network

The utilization of the blockchain technology development was first introduced in 2009 to control the visual currencies bitcoin. The acceptability of bitcoin is a good instance of a general network: it allows any participant who desire to trade and all participants can observe at transaction on the blockchain. The internet network is also obstacle: the new transaction is concluded to the blockchain via a cryptographic agreement mechanism need a large amount of computing authority to confirm transaction. The paramount gains of an acceptance network is which it does not need centralized authority control to accept or reject particular transaction; Any individual that do not have trust in each other or any other single central authority can trade on this acceptable network depending on an agreement mechanism to make sure the ledger is correct. This nullify require for a participant to acquire their own database which they sectionally settle against their parties otherwise all transactions are noted down on a single database. All participant safe a duplicate of the database therefore, there is no records of failure as observed in traditional logical database. Immediately, they are included in blockchain transaction cannot be change or altered again, enabling the ledger system to be unchangeable records of all past transaction.
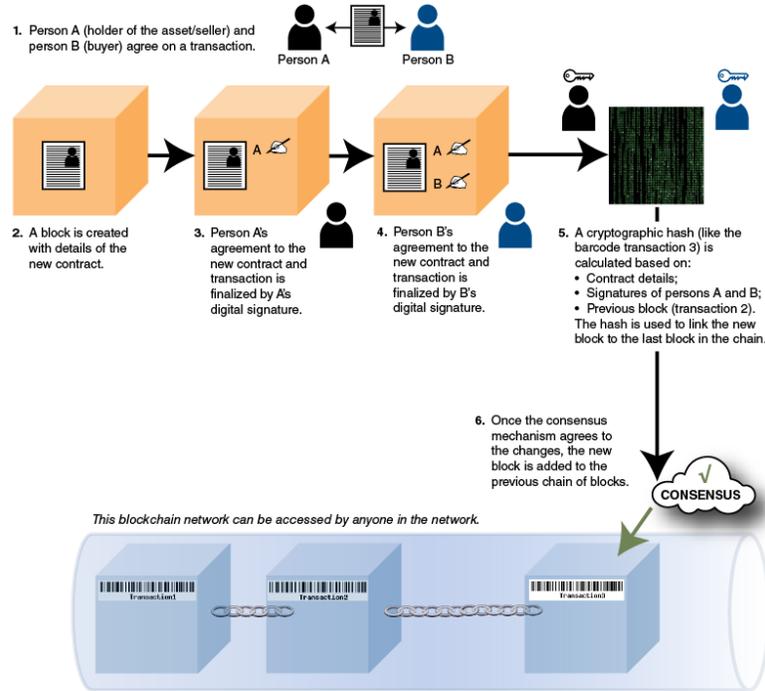
Figure5. Blockchain (DL) network channel–Stylized example of a transaction

Source: Financial Markets Group, Federal Reserve Bank of Chicago.

Authorized network

Most people observed the widen acceptability and a absent of centralized regulatory controlled as two pair blockchain's bitcoin main functions relative to nontraditional base structure. Nevertheless, as for application in the financial where (1) there are trustworthy and intermediary or mediator. (2) Accomplishment of transparency is not frequently required. (3). Users must abide with the rules and regulation prerequisite. The decentralized nature has shortcomings. It is usually that application of bitcoin technology development in financial markets will substitute the use of private an authorization bitcoin. The access is given to users who meet up with the membership criterion of network to facilitate private blockchain, in contrary to public that anyone has access to participate. Authorizing members (agreement authority) blockchain

enable specific member to have access to confirmation of transaction. Those authorizing can take control in many ways relying on the network designed. They would be responsible for explicitly authorizing transactions. There are other alternative which would be planned for authorizing member as the only member of the network allowed to engage in a cryptographic agreement mechanism.
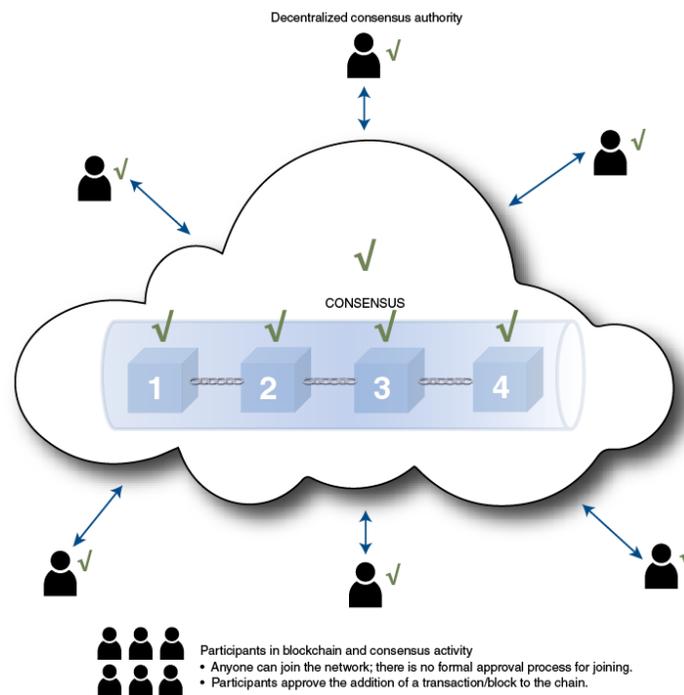

Figure6. Permissionless/public Blochian or bitcoin network

Source: Financial Markets Group, Federal Reserve Bank of Chicago.

Consensus mechanism

Each of blockchain has a consensus mechanism which employed to include new block to the database. The mechanism will vary relying upon the planned of the blockchain particularly either the blockchain authorized or unauthorized. When the blockchain is permissioned or authorized, the level in which the user in the network eager to entrust each other also has an impact on the consensus mechanism. In a permission blockchain perspective, immediately

the transaction completed and submitted by the parties engaged. It will later be verified by authorizing members of the blockchain or cryptographic or consensus mechanism accessible only by authorizing member. The trustworthy in transaction is assured due to the participants have trust in the network member with the authority to verify transaction.

Price dynamics

Bitcoin is not guided by any regulatory body or asset-backing system. This cryptocurrency is based on a virtual trading system via several complex mathematical algorithms as stipulated in science fiction. Bitcoin is not a generally accepted method of a transactional payment system. Additionally, Bitcoin has been connected with the avoidance of the legal system. This virtual currency has struggled to survive, which indicates the broad price of volatility as it was formally initiated in the digital market. The value of any good relies on basic economic indicators or drivers, such as scarcity, availability of utility, and demand. These elements predict the value of Bitcoin along with other factors that might be contrary to considered for any other fiat money. For instance, Google findings of dollars do not affect the value and quantity of Bitcoin but might easily determine cryptocurrency values (Aalborg et al., 2019). Several studies have examined the backup of Bitcoin prices or the determinants behind the consistent volatility of its values. The theory of demand and supply is the most common basis used in the literature to predict Bitcoin values. According to Blundell-wingnall (2014), inelastic demand and supply result in soaring prices of Bitcoin. The prediction model applied is characterised by the "medium of exchange" function of Bitcoin. Based on this form, the demand and supply function is formulated from the advantage curve or benefit of employing Bitcoin. Meanwhile, the values can depreciate to zero if these benefits are withheld by the government or tempered hackers or if a better alternative is available in the market. The trading value also highlighted the higher demand controlling ingredients using that transaction required of users to determine the prices. The variability of supply aspect emphasises the significance of determining the prices of unregulated currency. Polasik et al. (2015) outlined that any further change in the future will definitely be reflected in the current values as Bitcoin is governed by a mathematical algorithm.

The future of Bitcoin is easily speculated among private and institutional investors. The nature of liquid cash contracts allows participants in the market to speculate on Bitcoin without experiencing any security issues related to owning Bitcoin directly. For example, individuals with long-term contracts will be free of the risk of their private key investors with existing brokerage accounts and have free access to transact futures to transact Bitcoin into these accounts. The immaturity of a reliable exchange, such as CME legislating Bitcoin speculation. Individuals that partake in institutional investors, such as hedge funds will start participating in this market. Nevertheless, the effects of such institutionalisation are uncertain. Hence, the team of market participation intends to hold long positions on Bitcoin, which can increase. Nevertheless, the flexibility of transacting future contracts will also be simple. Bitcoin investors will react by eliminating Bitcoin as a result of transmitting their falling prices. Nonetheless, gaining more recognition of any future contract for this virtual currency is difficult. the Introduction of Bitcoin will help investors to engage in a well secure and quick financial transaction for the future users. Introducing Bitcoin will aid investors to involve in secure and fast transacting in the future.

Economic and efficiency of Bitcoin

Bitcoin is considered a highly innovative and stunning virtual currency. The main issue among users is comprehending the nature of its operating system and the economic motive of its existence. Literature has investigated its effectiveness and efficiency as a means of transactional payment. First, understanding the economic motive of Bitcoin is necessary. This digital currency does not involve a central bank authority or regulated body due to its nature of being decentralised and abstaining from any intermediate process, such as the government or the bank (Barber et al., 2012, Bohme et al., 2015). Both studies emphasised similarities, such as the incentive method of Bitcoin, constant supply, and remarkability. The constant supply of Bitcoin as observed earlier is because of its nature through mathematical algorithm. . Moreover, Bitcoin is constantly fixed but the virtual currency market is not constantly fixed altogether. Thousands of virtual digital currencies exist nowadays and new currencies are being introduced periodically.

Ali et al. (2014) mentioned that a stable supply would result in deflation that improves well-being pulling down deflation. A difficult responsibility involves contesting the difference in demand. Ali et al. (2014) suggested that an additional dynamic system could respond to varying demands. One possible method is to gain an adaptable development rate of currency supply and a decentralization voting system. Meanwhile, other researchers determined a possibility of decrement. Loi and Wang highlighted a possible currency of hyperinflation if the central banks decide to supply a high volume of currency. These possible scenarios of increment and decrement were dismissed by Iwamura et al. (2014), who discovered that stable distribution would only adversely influence the returning mine undertaking but not lead to deflation in such a situation. The feature of blockchain technology has improved the trading systems and much or less all form of technology employ over a particular of time for the betterment of Bitcoin transactions at all stages. The segregation of Bitcoin and supply is predicted following the use of mathematical algorithms. The number of users has slightly increased as the modern significance of Bitcoin is associated with the development of household payments and the quick advancement of alternative international transactions. Presently, Bitcoin takes part in financial transactions related to investment asset that appreciates in price and does not result in inflation due to its panic and convenient transaction. Nevertheless, many sources outlined that most people considered Bitcoin an effective method for money laundering and terrorism financing.

Impact of blockchains on financial trading

The new financial system, which involves different activities of daily transactions of journals comprising billions of participants has developed into an inactive method that brought flow processing and issues due to additional trading courses and unnecessary and troublesome bookkeeping. Moreover, approximately 50% of financial intersections, such as stock exchange, Internet banking, and money transfer system often suffer economic fraudulent. Almost 40% of the total global economy encounters the same concept. The average percentage of executive service and technology advanced sector also falls victim.

Dr. Mahmoud Ahmed Gad

Blockchain is closely associated with technological advances with the feature of eliminating some unbalance costs and issues related to the current financial system. In the first history of mankind, the concept of a business is based on two or more parties who are strangers to each other. They can enter into an agreement involved in business transactions and bring up values without the consent of any other parties. In order to ensure trust among each other and verify identities, such as regulatory authority and banking systems. The innovative technology surrounding Bitcoin encourages many companies in financial firms ranging from banks to professional qualifications within the transaction blockchain solution. The concept of blockchain aids the model of peer-to-peer mass interaction, which can make current institutional funds unnecessary. For example, newly established business enterprises that have yet to gain capital development from investors in the first phase and seeking for venture industrialised and later develop towards an early general offering. The dynamics of blockchain have totally changed the equation by allowing the industry to raise money within the peer-to-peer approach via a world-distributed share offer to the public. In previous years, the industry generated capital investment funds via conventional investors worth $400 million and almost $200 million known as initial coin offering (ICO). Nevertheless, ICO is a significant new trading model with related risks.

Wavelet, a raining main time obvious payment system, money exchange and order currently offer financial payment internationally authorised by blockchain. This system was mainly accepted to process direct transactions among banks and significantly reduce settlements charges. The first experience blockchain, which performed immediate settlement transaction service, was embraced by Thailand and Japan to initiate a new payment between both countries. The utilisation of the wavelet blockchain could improve the productivity and cost of payment methods of both countries. The time constraint of transactional payment between the two countries was drastically reduced to two to five seconds from the current standard of both transaction days. Wavelet blockchain is being used in a synchronised approach by large banks, hence assisting them in accomplishing immediate international bank transfers. Various central banks of different countries are considering possibly shifting part of their

business system into the blockchain system, while others are considering employing the technology to establish virtual money. This special innovation is in response to cryptocurrencies, such as Bitcoin giving rise to monetary policy. Switzerland has already launched the utility payment coin to create virtual money to utilise in the financial market by initiating tokens that can be changed into liquidity on deposits within the central banks.

Generally, blockchain technology advancement maintains vast transactions within and outside the border. This method has drastically reduced the cost and guaranteed transparency and accessibility of financial transactions based on the normal procedure, which has not encountered any difficulties for the users of the model of technology and reducing the fraudulent act.

Bitcoin's applications and benefits

Bitcoin technology advancement is an essential to achieve abundant benefits in the current business enterprises that require cost intervention, which entails financial transaction services. Nevertheless, the execution of this technology development will encounter various obstacles. Policymaker and regulatory bodies, transactional committee and market architectures are presently focused on both the obstacles and the prospective application of bitcoin development which may increase.

The digital assets-material assets such as gold, silver, stock certificate and real estates, frequently need to be examined and verified each time a transaction is completed, that extends the duration of transaction and settlement for every completed trade. The potentiality of DLT has transformed the physical asset into visual form for trading and recording keeping purposes. This visual asset could be mainly function as internet financial tools which changes hands every particular time the asset owner takes into record a ledger transaction change.

Visual currencies-the current transformation of internet banking transactions and payments, all of these systems are implemented with the aid of material currencies. More than a decade ago, many types of cryptocurrencies are embraced for actual international transactions. Cryptocurrency depend on encode

techniques in order to create, trade and confirm its values. The operational nature of this system is independently free from central bank regulatory authorities and is not supported by the central bank. Most of the countries central bank around the globe, such as South Africa, China, UK, Canada and Netherlands are progressing with approving visual state-finance fiat currencies sponsored by the government.

Virtual recording safe keeping: One of the main functions of bitcoin is keeping of audit trail of all transactions and the detail information of the parties that are concerned. When it properly planned and implemented its database will generate account which are standardized, fixed and simplified for each party to verify.

A smart contract: For the great achievement potential, the execution of bitcoin technology development will likely be achieved by smart contracts. Smart contracts are a kind of legal contract program in computer code which certainly carry out automatically, once a specific criterion, stipulated in the contract are achieve. It will be summed up to disburse ledgers to personally execute on the base on data information in the ledger. It will give room for the computerization procedure which presently need manual interventions.

Reduction in settlement period (post trade): The period of settlement can be excessively reduced with immediate record submission and their verification on a bitcoin. This can promote much liquidity in specific forms of trades which presently experience lengthy the payment cycles and may encourage more capital accumulation. Currently, the significance of financial assets cam mainly be settled contrary to payment if banks are operating for business transactions. When there is only one bitcoin which is responsible for the holder of money and another which responsible for the holder of securities, then for instance, that buyers have enough funds and sellers have enough shares, a payment versus settlement of money would occur at any period of time on unspecific date within a second, with confidence and legal decision.

Faster payments: International payment system needs frequent regulatory system and long deal cycles. The international trading industry is a significant intermediary market in the globe, require commercial banks and settlement bank to monitor the currencies procedure. A DLT service with visual identification of engaged parties in a trade which could be implemented for short settlement period.

Bitcoin as currency vs. Asset

The nature of block chain technology has improved the transaction system security of Bitcoin, confirm and almost anonymous. The segregation of Bitcoin and supply are predictable due to the application of a mathematical algorithm. The number of users has slightly increased since its inception, which is a long processing system. The use of any financial system instrument can be based on two fundamental functions, including a medium of exchange and a store of value. The important issue is to identify the two functions that dominate Bitcoin. The currency vs. asset discussion has become a popular topic of debate among experts as Bitcoin values are based on high price volatilities. Hence, the user may employ virtual currency only as a speculative instrument. Users can purchase Bitcoin and sell it as a backup when the exchange rate is high or rises, thereby gaining high returns. Regarding the issue of whether Bitcoin can be used as currency or an asset, knowing whether current studies have promoted it as an uncompromising currency is crucial. Bitcoins have the capability to ignore the interference introduced by banks. Maurer et al. (2013) examined the centralised payment system and governments as both refer to two main features of "privatisation" of identities which trading Bitcoins and its digital metalism. Bitcoin also encourages stability, solidity, anonymity, solidity, community, and materiality. Becker et al. (2013) stressed that the Bitcoin method of payment system is secure when no single body control over 50% of the network computing electricity used, which is needed to investigate high computational school issues that leave a carbon footprint.

During and Timur (2015) examined this new digital currency and electronic method, which exist independently without regulated body control. Observably, cryptocurrencies also manage similar monetary services as non-conventional money and are able to acquire users in the financial market. Dibrova (2016) confirmed that the price dynamics of Bitcoin indicate that the digital currency market has a positive prospect for improvement. Antonopoulos (2016) explained the impact of medial social transformation on society, which facilitates global interaction. The role of Bitcoin was examined to change the financial market, traditional transactions, and financial market liberalisation in the global market. The instability of Bitcoin is another crucial aspect for users. The rationale for the price dynamic of Bitcoin was examined by Blan (2018). In 2013, speculative transactions did not contribute to the unsteady rise and the subsequent collapse in the price of Bitcoin and it does not relate to the uncommon level of fluctuation. Kubat (2015) discovered that Bitcoin could not be used as alternative currency and cannot be used as a store value of money in any way Nonetheless, Durgan and Timur (2015) revealed that digital currency has a limited reflection on the market due to its inadequate, legal, gaps, and infrastructure issues and weakness, unlawfulness, and unsafe Internet networks.

Conclusion

The notion of virtual money possesses the authority to mainly change the method of global finance for development. Nevertheless, this change is based on favourable conditions and democratic principles. The notion is a practical and technological effort in the first phase of development. Bitcoin users and several more ranges of cryptocurrencies must focus on the actual limitation of the concepts. The implementation of creative concepts is gaining acceptance among various financial institutions and individuals regarding its significant positive impacts on various markets and conventional financial trading methods. The technology is expected to advance towards an entirely new global financial system.

There is a need for several research to be carried out in this field, blockchain stands to constitute a full of promise for the future revolution within the financial markets. Disburse ledger technology (DLT) have the potential to develop the orderliness and security of financial markets, providing that it is executed in a proper way. In the nearest future, the participants will receive rapid enhancement of particular application of disburse ledger technology which can be used for a better improvement cooperation among the private's sectors and public sectors and enhancement of trust, dissemination of information, transparency and audit trails.

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تأثير البيتكوين على السوق المالية

د. ساير ساعد ساير الجعيد

الملخص:

قامت هذه الدراسة بمراجعة للأدبيات حول القضية الرئيسية المرتبطة بتأثير البيتكوين على السوق المالية والتطور التكنولوجي الجديد. في الوقت الحالي أدت العملات الرقمية إلى توسيع التداول المالي حيث تعتبر البيتكوين أهم عملة مشفرة عالمية حالياً نظراً لاعترافها الكبير بالسوق وطبيعتها التكنولوجية، وعلى الرغم من أن الدراسات المختلفة قد أوضحت مزايا وعيوب البيتكوين ، إلا أن معظم الدراسات أكدت تأثيرها وعلاقتها بالسوق المالية، وقد عالجت هذه الدراسة أيضا هذه الفجوة.

تم استعراض بعض الأدوات والمفاهيم لفهم ديناميكيات البيتكوين وتحديد وظيفتها في السوق المالية. علاوة على ذلك، ألقت مراجعات الأدبيات الحالية والسابقة الضوء على وجود علاقة قوية بين البيتكوين والسوق المالية مع العملات المشفرة الأخرى. باختصار، لا تزال البيتكوين في المرحلة المبكرة وتحتاج إلى التطوير من خلال النمو التكنولوجي.

الكلمات المفتاحية: البتكوين، التكنولوجيا المالية، السوق المالية