

BIT-COINS'S IMPACT ON GLOBAL FINANCIAL MARKET

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Abstract

This study associated with the impact of bit-coins 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. Bit-coin is considered the most significant global crypto-currency due to its significant market recognition and technological nature. Although various studies have explained the merits and demerits of bit-coins, most studies emphasized 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 bit-coin and determine its function in the financial market. Moreover, the global meaning and function of bit-coin were examined. Virtual and previous literature reviews highlighted a strong relationship between bit-coin and the financial market with other crypto-currencies. Summarily, bit-coin is still in the early stage and needs to be developed through technological growth worldwide.

Introduction

Since its inception as a peer-to-peer crypto currency in 2009, bit-coin has experienced remarkable growth. *Nakamoto (2008)* originally proposed the idea in a white paper and released the related software as an open-source project. His work has been significantly improvised since then, mainly by volunteers. Bit-coin facilitates online payments without going through financial institutions. It is understood and used in the form of an asset as well as a currency. As an asset, it acts as a store of value, as a currency, it is also a medium of exchange and a unit of account (*Baur, Hong, & Lee, 2018*). The success and failure of bit-coin in both of these formats depends largely on its value compared with existing assets and currencies. The pathetic value of Bit-coin in its early years is evident

from the statement of a Bit-coin user who said in 2010: “*I just want to report that I successfully traded 10,000 bit-coins for pizza*” (Zohar, 2015). In December 2017, the price of bit-coin crossed the level of \$19,000. This price rise has generated immense speculative, investigative, and research interest in bit-coin and other crypto-currencies. According to the website (<https://coinmarketcap.com>), there are now 1,519 crypto-currencies in the world (accessed February 26, 2018). The market capitalization of bit-coin constitutes 37.98% of the total market capitalization of all the crypto-currencies (after reaching a high of 87.34% in December 2016). Its share is followed by Ethereum (19.36%), Ripple (8.45%), and bit-coin cash (4.67%). Academics essentially ignored bit-coin for several years and informally argued that bit-coin could not work, based on theoretical models and past experience, despite the fact that it was working in practice (Narayanan & Clark, 2017). Bit-coins and other cryptocurrencies, therefore, have not yet been fully understood in the academic world although they constitute a highly dynamic field of research. Numerous questions with high practical relevance remain to be answered. It is important, therefore, to follow future developments in this field (Tschorsch & Scheuermann, 2016). Although bit-coin have been recognized controversially because of criminal purposes, there is still a better picture of the system. (Henry, Huynh, and Nicholls, 2017) studied the drivers behind the adoption and use of bit-coins in Canada and its potential implications for cash and concluded that about 64% of Canadians have heard of bit-coins, but that only 2.9% use it.

Bit-coins and other crypto-currencies have benefits for most marginalized people, merchants, tax departments, and regulatory authorities. It has been considered a secure time-stamping system whose risk can be minimized subject to personal trade-off (Tschorsch & Scheuermann, 2016). It enables a frictionless commerce and helps detect fraud through authentication of buyer and seller (Albuquerque & Callado, 2015). (Dyhrberg, 2016) noted that bit-coins combine the advantages of both currency and a commodity. (Bouri, Azzi, and Dyhrberg, 2017) agreed that bit-coins are an effective diversifier and a safe investment against risk. Despite its advantages and implications in the real world, more than 95% of all the bit-coins in circulation are owned by only 4% of the market (Durden 2018). More participants are needed to avoid the concentration of bit-coins in a few hands. This paper seeks to consolidate the research conducted thus far

relating to bit-coins and other crypto-currencies, with a view to setting a research agenda for the future.

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 an instance, a central bank of a country and monetary policy that regulates money control. Several studies and economic experts described bit-coins as money, which may not be dependable considering the accurate description of money.

Bit-coins 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 Bit-coins transactions were performed daily worldwide, which displays a high potential for continuous development. Bit-coins are based on a decentralized 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. Bit-coins 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 Bit-coins 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* emphasized that the present cryptocurrency users

are 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*).

Objectives of bit-coins

Bit-coins, the first and most well-known crypto-currency, have a few key objectives:

- *Decentralization:* Bit-coins were created to operate without a central authority or government. Instead, it relies on a distributed network of computers (nodes) to validate and record transactions.
- *Peer-to-Peer Transactions:* It enables direct transactions between individuals without the need for intermediaries like banks or payment processors. This can reduce transaction fees and processing times.
- *Financial Inclusion:* Bit-coins aim to provide access to financial services for people who are unbanked or under banked, especially in regions with unstable banking systems.
- *Digital Gold:* Many view Bit-coins as a store of value similar to gold. Its limited supply (capped at 21 million bit-coins) is intended to make it resistant to inflation and preserve value over time.
- *Privacy and Security:* Bit-coins use cryptographic techniques to secure transactions and control the creation of new units. While transactions are public and recorded on the block-chain, users can maintain a degree of privacy.
- *Innovation in Money:* By introducing block-chain technology, Bit-coins has spurred a wide range of innovations in digital currencies and decentralized systems.

Each of these objectives reflects Bit-coin's role as both a technological advancement and a new form of financial asset.

Higher Visibility and Adoption in Other Countries

In Japan, Bit-coins has been adopted as a legal method of payment, although it is treated as an asset and not as a currency, still, there is a huge demand for bit-coins in Japan.

In one of the countries i.e. Estonia, the government is implementing block-chain technology for services like healthcare, banking, and even governance by allowing its citizens to become E-Residents.

Countries like United States, United Kingdom, Denmark, Sweden, South Korea, Netherland, Finland, Canada, and Australia have been supportive of Bit-coins and crypto-currency. One of the Billionaires US revealed that he holds more than 10% of his net worth in crypto-currencies like Bit-coins and Ethereum.

The state of bit-coins in India

India has taken late entry in crypto adoption. Due to restrictions on foreign currency remittance and allowable overseas investments, Indians often does not get to trade in International Financial instruments. At the time when bit-coins were picking up the pace in China, Citizens of India struggled to transfer money to the overseas Bit-coins Exchanges and thereby missed the Bull Run.

However, things changed after the demonetization took place in the Country. This drastic change was introduced just to curtail counterfeit cash as this motive was achieved but many people were left panicking as because of this people turned to Bit-coins. From a report by Google, it was reported that Bit-coins has reached all-time highs, and it has value too.

Once the local Exchanges starts to function in India, the Bit-coins users will get a feasible option to purchase Bit-coins using the local currency, and the adoption of Bit-coins will increase considerably. Owing to the shortage of Bit-coins sellers in India, the Indian Bit-coins price often ran at a premium of over \$ 400 from the international market price.

India seems to be next in line to legalize Bit-coins, now the Government of India has also agreed to regulate Bit-coins. The Indian government has agreed that regulating Bit-coins could be beneficial and is currently creating the laws to do so.

General Position and View around the World

After the glorious comeback of Bit-coins after the crash of 2011, and its constant growing popularity, it has received much attention from various jurisdictions around the world.⁵² Central banks and governments of many nations have issued official statements, regulation and reports on handling of Bit-coins and other significant uses with regard to effecting business transactions. Governments have issued such statements on a wide range of topics from concerns regarding fraud, tax considerations, possibility of negative impacts on national currencies to whether Bit-coins are recognized as legal tender/currency. It must be noted that this debate over how to deal with this new virtual currency is still in its infancy. Also, the characterization of Bit-coins as currency has been rejected by most jurisdictions which have taken steps to regulate it.

The major reason for doing so seems that they would not want to confer such a status to peer-to-peer units. Certain countries like China⁵³ and Brazil⁵⁴ have made efforts to warn people of the risks associated with trading in Bit-coins. RBI too has issued a similar caution. Several nations such as Canada, ⁵⁵Norway, ⁵⁶ and Singapore ⁵⁷ have declared Bit-coins as ‘assets’.

Although, it may be noted that such an approach might lead to several difficulties. For instance, once Bit-coins have been mined by a party, the transfer of these Bit-coins may not be subjected to capital gains tax, if treated in a similar manner as the self-acquired tangible assets.⁵⁸ Virtual currencies have also not been covered under the exceptions that have been carved out in some specific types of transactions with regard to sale of self-generated assets in cases where Bit-coins are characterized as assets. Payments to contractors and sub-contractors, the whole of which may not be characterized as income or profits in the hands of the recipient, may not be subject to withholding obligations where Bit-coins are characterized as assets

Australia:

The Australian Taxation Office (ATO) had informed that it was keeping a close watch on the “volatility [of Bit-coins], how widely it is accepted, its interaction with conventional

currencies through exchange mechanisms and international developments”. A Draft ruling of Goods and Services Tax (GST), a guidance paper and four tax determinations on the taxation treatment of Bit-coins and other virtual currencies were also issued in august 2014. In October 2013, an Australian Bit-coins bank was hacked, resulting in the theft of over US\$1 million worth of the Bit-coins.

China:

The central bank of China and four other central government ministries and commissions, issued a notice on precautions against risks of Bit-coins in December 2013. The notice clearly stated that the nature of Bit-coins is that of a “virtual commodity” and not a currency. Owing to this fact, Bit-coins should not be traded as a currency in the market. The notice also prohibited the Financial Institutions in China from dealing in Bit-coins. The notice further mentioned that overseeing of internet sites that dealt in services relating to the Bit-coins was to be made much more stringent. It also issued a general warning issues relating to money laundering with the use of bit-coins

European Union:

No legislation yet has been passed by the EU relating to the status of Bit-coins as a currency. A detailed report on virtual currency which discussed the Bit-coins system and briefly analyzed its legal status within the EU was issued by the European Central Bank.⁷³ However in the conclusion of the report, the Bit-coins was kept outside the purview of directive 2007/64/EC since the directive does not deal with electronic money and the financial institutions are not allowed to deal in it either.⁷⁴ In December 2013, European Banking Authority (EBA), the regulatory and advisory agency of the EU in matters of banking institutions, e-money regulation etc. issued a warning on the dangers of using virtual currency. It also clarified that the consumers might still be taxed when using virtual currency as Bit-coins is not regulated.

Positive comments about bit-coins:

The following are some of the major advantages of using Bit-coins versus other currency systems:

- **No Third-Party Seizure:** There are multiple redundant copies of the transactions database; no one can seize bit-coins. The most someone can do is force the user, by other means, to send the bit-coins to someone else. This means that governments can't freeze someone's wealth, and thus users of Bit-coins will have complete freedom to do anything they want with their money.
- **No Taxes:** There is no way for a third party to intercept transactions of Bit-coins, and therefore there is no viable way to implement a Bit-coins taxation system. The only way to pay a tax would be, if someone voluntarily sends a percentage of the amount being sent as tax.
- **No Tracking:** Users publicize their wallet addresses publicly; no one can trace transactions back to them. No one, other than the wallet owners, will know how many Bit-coins they have. Even if the wallet address was publicized, a new wallet address can be easily generated. This greatly increases privacy when compared to traditional currency systems, where third parties potentially have access to personal financial data.
- **No Transaction Costs:** Sending and receiving Bit-coins requires users to keep the Bit-coins client running and connected to other nodes. Essentially, by using bit-coins users will be contributing to the network, and thus sharing the burden of authorizing transactions. Sharing this work greatly reduces transaction costs, and thus makes transaction costs negligible.
- **No Risk of "Charge-backs":** Bit-coins are sent, the transaction cannot be reversed. Since the ownership address of Bit-coins will be changed to the new owner, once it is changed, it is impossible to revert. Since only the new owner has the associated private key, only he/she can change ownership of the coins. This ensures that there is no risk involved when receiving Bit-coins.
- **Bit-coins cannot be Stolen:** Bit-coins' ownership address can only be changed by the owner. No one can steal Bit-coins unless they have physical access to a user's computer, and they send the bit-coins to their account. Unlike

conventioncurrency systems, where only a few authentication details are required to gain access to finances, this system requires physical access, which makes it much harder to steal.

Negative comment about bit-coins:

Like any currency, there are disadvantages associated with using Bit-coins:

- **Bit-coins are not widely accepted:** Bit-coins are still only accepted by a very small group of online merchants. This makes it unfeasible to completely rely on Bit-coins as a currency. There is also a possibility that governments might force merchants to not use Bit-coins to ensure that users' transactions can be tracked.
- **Wallets Can Be Lost:** If a hard drive crashes, or a virus corrupts data, and the wallet file is corrupted, Bit-coins have essentially been "lost". There is nothing that can do to recover it. These coins will be forever orphaned in the system. This can bankrupt a wealthy Bit-coins investor within seconds with no way form of recovery. The coins the investor owned will also be permanently orphaned.
- **Bit-coins Valuation Fluctuates:** The value of Bit-coins is constantly fluctuating according to demand. *As of June 2nd 2011*, one Bit-coins was valued at \$9.9 on a popular bit-coins exchange site. It was valued to be less than \$1 just 6 months ago. This constant fluctuation will cause Bit-coins accepting sites to continually change prices. It will also cause a lot of confusion if a refund for a product is being made. For example, if a t shirt was initially bought for 1.5 BTC, and returned a week later, should 1.5 BTC be returned, even though the valuation has gone up, or should the new amount (calculated according to current valuation) be sent? Which currency should BTC tied to when comparing valuation? These are still important questions that the Bit-coins community still has no consensus over.
- **No Buyer Protection:** when goods are bought by Bit-coins, and the seller doesn't send the promised goods, anything can be done to reverse the transaction. This problem can be solved using a third party escrow service like Clear Coin, but

then, escrow services would assume the role of banks, which would cause Bit-coins to be similar to a more traditional currency.

- **Risk of Unknown Technical Flaws:** The Bit-coins system could contain unexploited flaws. As this is a fairly new system, if Bit-coins were adopted widely, and a flaw was found, it could give tremendous wealth to the exploiter at the expense of destroying the Bit-coins economy.
- **Built in Deflation:** Since the total number of bit-coins is capped at 21 million, it will cause deflation. Each bit-coin will be worth more and more as the total number of Bit-coins maxes out. This system is designed to reward early adopters. Since each bit-coin will be valued higher with each passing day, the question of when to spend becomes important. This might cause spending surges which will cause the Bit-coins economy to fluctuate very rapidly, and unpredictably.
- **No Physical Form:** Bit-coins do not have a physical form; it cannot be used in physical stores. It would always have to be converted to other currencies. Cards with Bit-coins wallet information stored in them have been proposed, but there is no consensus on a particular system. Since there would be multiple competing systems, merchants would find it unfeasible to support all Bit-coins cards, and therefore users would be forced to convert Bit-coins anyway, unless a universal system is proposed and implemented.
- **No Valuation Guarantee:** There is no central authority governing Bit-coins, no one can guarantee its minimum valuation. If a large group of merchants decide to “dump” Bit-coins and leave the system, its valuation will decrease greatly which will immensely hurt users who have a large amount of wealth invested in Bit-coins. The decentralized nature of bit-coins is both a curse and blessing.

Bit-coins’ global scenario, comparing India with ten other countries:

India: India's regulatory environment for Bit-coins is cautious and evolving. Although crypto-currencies are not banned, regulations are fragmented, and there have been discussions about stricter controls. Nonetheless, there is significant interest and a growing market.

United States: Bit-coins is legal and widely used. The U.S. has a relatively mature regulatory framework, with the SEC and CFTC overseeing different aspects of crypto-currency regulation. Institutional investment is strong, and Bit-coins is integrated into many financial products and services.

United Kingdom: Bit-coins is legal and regulated under anti-money laundering laws. The Financial Conduct Authority (FCA) oversees crypto businesses, and there is growing interest and adoption among both retail and institutional investors.

Germany: Germany has a positive stance towards Bit-coins. It recognizes Bit-coins as legal and regulates it under existing financial laws. Bit-coins is treated as a unit of account, and there are favorable conditions for crypto businesses and investors.

Switzerland: Switzerland is known for its crypto-friendly regulations and is home to numerous crypto companies and institutions. Bit-coins is recognized as a digital asset, and the country has established a supportive legal and regulatory framework for crypto-currencies.

China: China has a restrictive stance on Bit-coins. The government has banned crypto-currency exchanges and initial coin offerings (ICOs) and has cracked down on mining operations. This has led to a significant reduction in Bit-coins-related activities within the country.

Russia: Bit-coins is not illegal in Russia, but it is not officially recognized either. The regulatory environment is uncertain, with various legal and financial restrictions. There have been discussions about establishing clearer regulations for crypto-currencies.

Japan: Japan has a progressive approach to Bit-coins, recognizing it as a legal form of payment. The Financial Services Agency (FSA) regulates crypto-currency exchanges, and Japan is one of the leading countries in terms of Bit-coins adoption and integration into the financial system.

Canada: Bit-coins is legal in Canada and is regulated under existing financial laws. Canada has a positive environment for crypto-currency, with several Bit-coins ETFs available and a growing interest from both individual and institutional investors.

Australia: Bit-coins is legal and regulated under anti-money laundering laws in Australia. The Australian Transaction Reports and Analysis Centre (AUSTRAC) oversees crypto exchanges, and there is increasing adoption and investment in Bit-coins.

Brazil: Bit-coins are legal in Brazil, though the regulatory environment is still developing. The country has seen growing interest in Bit-coins and other crypto-currencies, and there are ongoing discussions about creating clearer regulations for digital assets.

Overall, while Bit-coins is recognized and utilized in many countries, regulatory approaches vary widely, from highly supportive environments to restrictive stances. India, like many countries, is navigating its regulatory path while witnessing growing interest in crypto-currency.

Bit-coins price:

Bit-coins price is renowned for being highly volatile, but despite that, it has become the top performing asset of any class (including stocks, commodities and bonds) over the past decade – climbing a staggering 9,000,000% between 2010 and 2020. When the crypto-currency was launched at the beginning of 2009, as Satoshi Nakamoto mined the bit-coins genesis block (the first-ever block on the Bit-coins block chain), 50 BTC entered circulation at a price of \$0.00. Fifty bit-coins continued to enter circulation every block (created once every 10 minutes) until the first halving event took place in November 2012 (see below). Having's refer to bit-coins issuance system, which was programmed into Bit-coins code by Satoshi Nakamoto.

By early 2013, the leading crypto-currency had recovered from a prolonged bearish episode and rose above \$1,000, albeit only briefly. With the infamous Mt.Gox hack, china announcing its first ban on crypto and other situations, it took a further four years for the BTC price to return to above \$1,000 again. Once that level was passed, however, bit-coins price continued to surge dramatically throughout 2017 until BTC peaked at its previous long-standing all-time high of \$19,850. Over 2018, the entire crypto market plunged into what is now known as the “crypto

winter” – a yearlong bear market. It wasn't until December 2020, when bit-coins returned to test the previous all-time high, that it eventually surpassed that historical level and rose a further 239% over the next 119 days to a new all-time high of \$64,799.

Conclusion

Banning bit-coins would lock us out of this fast burgeoning business while other countries continue to advance. On the contrary, controlling and utilizing this new technology will aid India in furthering its interests while establishing the new international order.

Efficient regulation would also aid in the prevention of frauds and the unauthorized usage of bit-coins. Better understanding of what the Bill can provide will be gained only once it is delivered and its content is made public.

Bit-coins are neither the money of the future, nor is it a potential 'global currency.' If it survives, which it very well may, it will most likely be as a high-risk asset class. As a result, it might see a significant gain in value in the future, but it could also go the other way and become worthless. Buyer Be Careful.

Reference:

- https://www.researchgate.net/profile/GaganSharma/publication/335028901_Emergence_of_Bitcoins_as_an_Investment_Alternative_A_Systematic_Review_and_Research_Agenda/links/5d4ba99a299bf1995b6e9f8b/Emergence-of-Bit-coins-as-an-Investment_Alternative-A-Systematic-Review-and-Research-Agenda.pdf
- https://journals.ekb.eg/article_324085_382f9a4d4d380ded2ad7f31d843a0b99.pdf
- <https://cs.stanford.edu/people/eroberts/cs181/projects/2010-11/DigitalCurrencies/disadvantages/index.html>
- <https://www.coindesk.com/price/bit-coins>
- https://www.nishithdesai.com/fileadmin/user_upload/pdfs/Research%20Papers/Bit-coinss_A_Global_Perspective.PDF