Bitcoins in the Malaysian Economy

Mahadi Hasan Miraz*, Kamal Imran Mohd Sharif *, Mohamad Ghozali Hassan*, Mohd Azril Ismail*, Fariza Binti Mahyadin*

[*] *School of Technology Management and Logistics, Universiti Utara Malaysia, Malaysia.*

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corresponding authors:
mahadimiraz1@gmail.com

Abstract

Bitcoin is digital money, and it is public and distributed in its ecosystem. A bitcoin first released by Satoshi Nakamoto in 2008. It is a peer-to-peer (direct connections without an intermediary), open-source encryption system, where transactions occur through a public directory called a blockchain. However, bitcoin has no proper review in the Malaysian context. Also, there is no specific and descriptive analysis of bitcoin in Malaysia. Though Bitcoins have already gained widespread popularity worldwide, it would be better to control this industry through proper management. The faster it is, the more accessible. However, blockchain technology is redeeming in a positive light. This study focused on individual facts and details, such as articles, reviews, forums, Malaysians brochure, business lines, and research reports. The study relies on secondary data. This study's primary aim to review previously studied that focuses on bitcoin around the globe and Malaysia. A method of meta-analysis is used for theory-building. This study provides the Malaysian bitcoin market's key insights and understing to consumer and operator.Therefore conclude with a summarization of bitcoin's current situation in Malaysia.

Keywords: *Blockhain, Distribute Ledger, Cryptocurrency, Bitcoin, Malaysian Economy.*

1. Introduction

Bitcoins have already gained widespread popularity worldwide (Hye, Miraz, Abdullah, *et al.*, 2020; Hye, Miraz, & Habib, 2020). The Malaysian government has taken a progressive approach to business administration since independence and has established licenses to operate Malaysian businesses (Sun, Liu, & Sima, 2020). Therefore, the international market was uncompetitive Malaysiaproducts that contributed to export declines (Hye, Miraz, Sharif, & Hasan, 2019; Miraz, 2020b). At the same time, Malaysia increased its Forex outgoing bill of capital goods, crude oil, and petroleum products (Tan, Koh, & Ng, 2019). All payments were in USD, contributing to a severe foreign exchange shortage (Hye, Miraz, Sharif, & Hasan, 2020; Miraz, 2020a). In 1973, it was enacted by the Foreign Exchange Regulation Act. According to the guidelines, all projected income from companies and residents must submit to Maybank (Mahadi, Ferdoush, & Rahman, 2016; Miraz, Habib, & Saleheen, 2017; Miraz, 2020c). FERA strictly controlled all foreign exchange activities. The forex market in Malaysia formally opened when the central government authorized exchange trading in the interbank (Miraz, Ghozali Hasan, & Sharif, 2018).There was a highly regulated Malaysian Forex market (Miraz & Habib, 2016b; Miraz, Hasan, & Sharif, 2019a). The government of Malaysia felt the need for foreign exchange liberalization. Consequently, it was adopted Foreign Exchange Management Act (FEMA) 2000 (Miraz & Habib, 2016a; Miraz , Habib, & Molla, 2016).. Also, the Malaysian government began gradually relaxing checks, and the exchange rate increasingly formed in the market (Miraz, Hasan, & Sharif, 2018; Miraz, Hasan, *et al.*, 2019a; Miraz, Hasan, & Sharif, 2019b). The Malaysia Federal Foreign Exchange Dealers Association (FEDA), established in 1998, has helped the Malaysian government to formulate laws and legislation for the exchange trade and the growth of the Malaysian forex market (Miraz, Hasan, & Sharif, 2020). The Clearing Corporation of Malaysian Limited (CCML) has been chiefly responsible for the clearing and settl foreign currency functions since 2001. In 2008, when the currency future began to trade on the National Stock Exchange (NSE), another significant development of the Malaysian forex market occurred (Teh, Yap, & Wong, 2020; Trautman, 2014). The turnover in the future has steadily increased since the implementation (Miraz, Hasan, Masum, *et al.*, 2020). Although the banks and authorized dealers undertook FDDs, the performance of currency futures traded in the exchange was a new start as retail investors could participate in FDDs trading. This paper is intended to study cryptocurrencies affecting the Malaysian economy (Miraz, Hasan, Sumi, *et al.*, 2020a).

2. Cryptocurrency

Many cryptocurrencies have been introduced since Bitcoin was established in 2009. It has received considerable attention from the media, and its total market cap in March 2017 exceeded USD 20 billion (Voskobojnikov, Obada-Obieh, Huang, & Beznosov, 2020; Xiong & Tang, 2020; Yang, 2016). More specifically, several central banks have recently begun to explore the use of cryptocurrency and blockchain retail and high-value payment technologies (Miraz, Hasan, Sumi, *et al.*, 2020b; Miraz, Hassan, & Sharif, 2020). The "People's Bank of China" aims to develop an inter-bank digital currency based on blockchain technology. Besides, the "Bank of Canada" and the Singapore "Monetary Authority" study its use in inter-banking payment systems.

Furthermore, the Deutsche Bundesbank is developing a preliminary prototype for blockchain settlement of financial assets (Yeong, 2019). Most proponents claim that crypto-monetary and blockchain technology significantly impact the future growth of payment and economic systems (Miraz, Hye, Alkurtehe, *et al.*, 2020; Miraz, Hye, & Habib, 2019). The term crypto-monetary has increasingly become popular in recent years (Miraz, Hye, Wahab, *et al.*, 2020a). Today, cryptocurrency is becoming increasingly essential for people who value private life (Miraz, Hye, Wahab, *et al.*, 2020a, 2020b). It is not too far-flung to use cryptography to control money production and distribution.

Today the financial world is storming as more people invest and buy these currencies, led by Bitcoin, Litcoin, and Ether. Simultaneously, the overall effectiveness of the cryptocurrency is reversed through widespread confusion and bias (Miraz, Kabir, Habib, & Ahmed, 2019). Given its volatile nature, informing users about alternative currency forms is extremely important. This post will try to overview cryptocurrency and how it impacts the world we know nowadays (Miraz, Kabir, Habib, & Alam, 2019).

3. Literature Review

Abdul Karim (2019) explains that the general monetary balance model is being developed to study a blockchain-based cryptocurrency system. In order to undertake a quantitative evaluation of the system, the model is calibrated based on Bitcoin transaction data (Yussof & Al-Harthy, 2018; Zubir *et al.*, 2020). By competing for blockchain updates, we formalize the blockchain's fundamental features for maintaining the history of transactions, distributed information updates, and consensus (Miraz, Majumder, Chowdhury, & Habib, 2018). The study shows that an immediate and final settlement does not support a cryptocurrency system contrary to money.

Furthermore, the current Bitcoin scheme causes a welfare loss of 1.4%. The optimum strategy to reduce mining costs and focus instead on money growth instead of transaction fees for nance mining incentives will substantially reduce this loss to 0.08 percent. When following alternate consensus mechanisms such as the proof of stake, performance can be increased further (Miraz, Saleheen, & Habib, 2017). One essential economic element of a crypto-monetary system is that mining is regarded as a public utility, beneficial to all participants. Individual incentives to reverse a single transaction determine the double costs associated with crypto-monetary fraud. Consequently, when the transaction volume is large compared to the original transaction size, a cryptocurrency works best (Tandon, Dhir, Islam, & Mäntymäki, 2020; Trautman, 2014).

Furthermore, few researchers presented a quantitative characterization of the Bitcoin Network, which focuses on service levels and the widening gap between the possible anonymity available in the Bitcoin Protocol architecture and user anonymity (Trautman, 2014; Wang, Su, & Li, 2020; Weber *et al.*, 2017). We built an additional heuristic Clustering based on Changing Addresses to cluster addresses belonging to the same person to complete this (Pandya, Mittapalli, Gulla, & Landau, 2019). Then we classify significant institutions and their interactions using a small number of transactions identified by our own empirical experiences with various services (Phillips & Gorse, 2017). Even our relatively little experiment shows that this approach can shed considerable light on the Bitcoin economy's structure, use, and participation (Schaupp & Festa, 2018).

Implement a series of modifications to the original Bitcoin protocol, which would lead to significantly improved protection, resilience, and decentralization ion: a sliding blockchain for dead coin lottery, Zero mixing forced, and ostracism of the miner (Nawang & Azmi, 2020). Such improvements would include a proactive blockchain fork, but the devaluation transactions proposed are a realistic way to slowly shift the bitcoin economy to a better system (Mofijul Hoq Masum & et al., 2020; Mutambara, 2019). A change that is essential if we are to maintain a genuinely alternative payment system.

3.1 Analysis of Literature Sources

The researcher classifies the journals as they are published on the different platforms in the online database. According to the Scientific Citation Database, 153 journals in divided into many groups. Finance, social science, business administration, technology, and economics are all included in the total number of publications. Numerous study areas have been identified as being focused on bitcoin technologies, as seen in Table 1. Researchers are increasingly interested in bitcoin technology, leading them to explore other areas of expertise.

Table 1: Literature Sources

Journal Classification	Classification Subtotal	Proportion
Banking	87	56.88%
Accounting	23	15%
Fintech	19	12.43%
Management	15	9.81%
Marketing	9	5.88%
Total	153	100%

3.2 Analysis of Literature Research Subjects

Five sections are created from the 153 selected articles. The categories are finance, accounting, banking, big data, Internet energy, the existing status, risks, and possibilities. "Digital currencies", "payment", "bills", "banks", "internet banking", "supply chains" and the "large financial market" are the five areas of banking and finance in Table 2.

Table 2: Analysis and Types of Manuscripts

No.	Research Subjects	Qualitative	Quantitative		Percentage
1	Banking	40	47		56.88%
2	Accounting	12	11		15%
3	Fintech	8	11		12.43%
4	Management	9	6		9.81%
5	Marketing	5	4		5.88%
	Total	74	79		100 %

4. Research Design

The current study is based on individual facts and data, such as papers, Bank Negara Malaysia (Maybank) reviews, blogs, Malaysia booklet & brochure, business lines, and research reports. The report is based on secondary data.

5. Importance of Cryptocurrency

Cryptocurrency is planned to use the Internet to works from the ground (Aste, 2019; Bakar, Rosbi, & Uzaki, 2017; Danial, 2019; Frebowitz, 2018; Gurrea & Remolina, 2020). Cryptocurrency transactions are verified on the computers logged into the currency's network rather than on traditional financial institutions that check and guarantee operations (Alaeddin & Altounjy, 2018). A predefined formula can not increase the money supply (Albayati, Kim, & Rho, 2020). The algorithm of rate is known to all users, as the currency is secured and encrypted. Therefore no crypto-currency can be generated or "mined out" beyond it, as each algorithm has a roof limit. Since cryptocurrency lies entirely in the cloud, it has no physical but digital value. It can be used in a constantly growing number of retailers and other companies with a digital equivalent in cash (Bakar & Rosbi, 2017). Therefore, the transaction cost of cryptocurrency payment policy is lower than banks. Charge in monetary operations. Which is much lower than the regular credit card handling fees, and Bitcoin was the first ever created cryptocurrency (Chan *et al.*, 2018; Chow, Sugathan, Kalid, & binti Arshad, 2019).

Bitcoin is the most popular cryptocurrency with huge successes. There are other cryptocurrencies for people to deal with, such as Ripple, Lit Coin, Peer Coin, etc. However, other currencies have loosed the most interest because nobody gets attention to use them (Bakar *et al.*, 2017). On the other hand, a cryptocurrency is only secure as its users. Some of the essential characteristics of Crypto-monetary conversion include:

a. The crypto-monetary transaction transformed into other forms of money.
b. Most Crypto-Monetary transactions can be transactive secretly and can be used as discrete electronic money worldwide. Therefore, Users do not have to pay any currency translation fees
c. While 100% resistant to fraud, it can be usually saved offline in a "Paper" wallet or on a portable storage hard drive that can be removed from the Internet if not used by malicious hackers and is challenging to use and difficult to use.

5.1. Bitcoin-A Future Blink

2016 was Bitcoin's year, and this digital currency grew by nearly 79 percent as opposed to Ruble and Real Russia, the world's leading hard currencies. As a result, investors getting better when foreign exchange, stock trading, and commodity agreements impacting bitcoin today(Chan *et al.*, 2018; Chow *et al.*, 2019; Fauzi, Paiman, & Othman, 2020).

5.2. Bitcoin

It is a decentralized crypto-currency, virtual money, like any other currency and Bitcoin, is also a currency of its kind. It is a central bank-free or administrator-free program. The status of the global payment system has been gained. Nevertheless, it has not been given legal status in most countries. A Bitcoin is an anonymous group named Satoshi Nakamoto, first published in 2008. It is an open-source pair-to-pair (direct links without any broker) cryptographical framework where transactions are made anonymously using a public directory called blockchain handler users ' info. Eleven years after its launch, Bitcoin is now the digital currency that is widely utilized and accepted. Bitcoin (1 milibitcoin= 0.001 bitcoin) and Satoshi (1 satoshi= 0.0000001 bitcoin) are further divided through millibitcoin. Satoshi is Bitcoin's smallest unit.

Every transaction is entered in a block that acts as the leader. The hashtags link all of these links. If the transactions are documented, the information from participants in the transaction is unknown (Tandon *et al.*, 2020; Taufiq, Hidayanto, & Prabowo, 2018; Wang *et al.*, 2020). A linear sequence record of the events of these blocks is blockchain. Therefore, both the receiver and the giver parties cannot be traced (Chishti & Barberis, 2016; Gomber, Koch, & Siering, 2017; Gurrea & Remolina, 2020).

The following cryptocurrencies in market capitalization are largest after Bitcoin in April 2017:

1. Ethereal (Eth) 2015
2. Dash 2014
3. Maneroo (Xmr) 2016
4. Ripple (Xrp)
5. Lit coin (Ltc) 2011
6. Ripple 2012

5.3. The Impact of Virtual Money

The true-world impact of virtual cash is so misunderstood. Many people still seem to question- Why Bitcoins because these currencies use different and traded algorithms in unconventional ways before investing in Bitcoin and other products (Ku-Mahamud, Omar, Bakar, & Muraina, 2019). It is essential to seek out significant characteristics.

5.4. Overall Market Capitalization

Cryptocurrency market capitalization is the total value of all forms currently in circulation. New types of cryptocurrencies may not be widely available, so high market capitalization may not be possible. Likewise, the amount of daily trading is and a cryptocurrency that is more competitive than the others (Lee *et al.*, 2018).

5.5. Checking Channels

Each cryptocurrency has its method of checking.Proof of Functionis one of the best practices of research. In this case, a computer must spend time and computer power to track a transaction to solve severe math problems (Mutambara, 2019; Oseni & Ali, 2019). The "proof of stakes" process, on the other hand, enables users with the most significant proportion of the cryptocurrency to check transactions that require much less computing power (Nawang & Azmi, 2020).

5.6. Acceptance of Crypto-monetary Law

If significant retailers or other organizations operating with a crypto-currency are approved, there will be little value. That is why Bitcoin is still the most popular digital currency, as its variety is common and accepted by many businesses and retailers alike (Mutambara, 2019; Saleh, Ibrahim, Noordin, & Mohadis, 2020).

6. Challenges Ahead for Bitcoin

Although the astronomical growth of bitcoin can not be understated, cryptocurrency has several problems in general before universal acceptance is found (Yeong, 2019).

6.1. Safety and Reliability

Bitcoin's method of payment is purely based on its digital form because of its anonymity. This makes the general public fatigued to use it immediately. In 2014, the most extensive Bitcoin Exchange, Mt. Gox has been pirated and robbed of nearly $69 million, making the entire exchange bankrupt. While the people who lost money are now paid back, other people are reluctant to repeat the same thing.

6.2. The Discussion on Bitcoin Scalability

The culture of cryptocurrencies is informed about how the blockchain for future users will be updated. Since the amount of time and fees to validate a transaction rises, more companies have difficulty accepting Bitcoins for payment. More than 50 firms joined together in early 2017 to speed up transactions, but the results were still missing. As a result, more users will begin to use normal currency modes to solve these blockchain problems.

6.3 The Growth of the Challengers

Today, Bitcoin is not the only game in the region. While its value has increased by nearly 100 percent since early 2016, its digital currency stack share is rapidly decreasing due to almost 700 competition. Its market share has reduced to 50%, compared with 85% a year earlier, a sign of the future. Most of the population does not understand Bitcoins, nor do most of the governments of the world.

6.4. Unrecognized by Governments

The cost of obtaining a cryptocurrency license is immense, and no law insight can help people who want to participate in it. A proposal by Bitcoin for the operation of publicly traded funds based on digital currency was recently rejected by the U.S. Securities and Exchange Commission, which resulted in a massive fall in Bitcoin's share.

7. Bitcoin in Malaysia

Bitcoin is a possible means of improving the essential financial services and people's quality of life in developing countries, a promising tool to fight poverty (Yussof & Al-Harthy, 2018). An estimated 64% of people in the developing countries have no access to these services, perhaps because it is costly to serve poor people in rural areas by traditional financial institutions. People in these countries reach out for their financial needs to mobile banking services (Zubir *et al.*, 2020). Mobile banking services somebody can be further supplemented with the introduction of Bitcoin in developing countries. Since Bitcoin is an open payment system, it can also provide people in developing countries with global access to cheap financial services. It could relieve people in countries with tight capital controls (Zulhuda & binti Sayuti, 2017). The amount of bitcoin that can be mined is limited and can not be tampered with to 21 million. Since Bitcoin is a decentralized network, there is no central authority to abrogate bitcoin exchange or reverse transactions between countries. Bitcoin thus provides the people in countries whose currencies are devalued with an emergency exit. A popular Bitcoin exchange is planning to open an Argentina office in Argentina due to high demand (Abdul Karim, 2019).

Malaysia is a technologically knowledgeable country, and the quick spread of smartphones and internet connections enables information to spread more rapidly than ever. Additionally, many techies are investors or owners throughout the country of restaurants and pubs (Alaeddin & Altounjy, 2018). This offers film businesses a tremendous opportunity. One of Malaysia's tumultuous industries that seems super excited about Bitcoins ' use and future appreciation is technology startups (Albayati *et al.*, 2020; Bakar *et al.*, 2017). Several startups now prefer Bitcoins when starting up a company in cash. This is because almost all tech builds that monetiz will incorporate cryptocurrency (Chan *et al.*, 2018). For the sake of savings, it can serve as an alternative to gold. This can lower the demand for gold, ultimately reducing imports and boosting the balance of payments. The banking revolution will have a profound effect. Bitcoins in Malaysia quickly gain popularity. SourceForge reports that since the launch of Bitcoins on November 9, 2008, the number of users increases in Malaysia (Fauzi *et al.*, 2020).

It is doubtful that a currency that becomes extremely popular in the country and is used by more and more citizens has no legal status (Chowdhury & Razak, 2019; Fauzi *et al.*, 2020). Until now, only virtual currencies have worked the Malaysian government watched for and investigated. In their view, they are probably going to be patient. They wait to see how the developed economies respond to it before taking cryptocurrency because the economy and technology tackle two highly active and radical topics. The Bank Negara Malaysia issued public notices not to buy and sell Bitcoins virtual currency (Ku-Mahamud *et al.*, 2019). In addition to making the digital currencies transact easily through the bank. However, Bank Negara Malaysia and the income tax department's greatest fear is that Bitcoins will help move black money internationally (Lee *et al.*, 2018).

8. Power to the Dark Web

The Dark Web is a component of the Internet that cannot be reached by a search engine such as Google. We have access to the surface web, which is only a fraction of the total size of the present Internet. Dark websites can only be accessed through specialized software, such as the Tor Browser, which allows for anonymous Internet searching (Mutambara, 2019). A dark site is where murderers, arms, and many more illegal things can be found. Using cryptocurrencies such as Bitcoins, people can transact illegally without providing information. Cryptocurrencies like Bitcoins are a tool for facilitating these transactions worldwide (Nawang & Azmi, 2020).

9. Speculations

Bitcoin was worth $170 on January 14, 2015, and $2772 on July 24, 2017. The value of Bitcoins has been up and down several times, and this trend likely continues. BitCoins present a massive opportunity for speculation due to their extreme higher and lower rates. Like stock trading, Bitcoins trading is vast, and it is likely to continue to expand with a rise in momentum around cryptocurrencies (Saleh *et al.*, 2020; Tan *et al.*, 2019).

10. Politicization of Money

All currency trades were previously enabled (directly or indirectly) through central banks. Now the situation has changed with the evolution of Bitcoins. The control of governments and central banks transfers to the masses (Yeong, 2019). A groundbreaking transaction management change has the power to change the economic structure. Central banks and financial institutions keep track of all transactions made by the public to safeguard them and allow for further investigation (Sun *et al.*, 2020). People with digital currencies can now question this economic power. This has led to the creation and function of a new autonomous entity. Ultimately, Bitcoins can lead to money politicization when adopted fully (Xiong & Tang, 2020; Yang, 2016).

11. Anxiety amid the Central Banks

There are ramifications to the fact that Bitcoins can be used to launder money overseas in stealth. Central banks worldwide were unmanageable and unpredictable when it came to Bitcoins and other cryptocurrencies (Yeong, 2019). Cryptocurrencies contribute to gaps in the current bank's money transactions data that prevent economic activity from being monitored. Crypto and cyberspace have grown in Malaysia's central bank (Yussof & Al-Harthy, 2018).

12. The Emergence of New Markets

The emergence of new markets has resulted in cryptocurrencies. Currencies like Bitcoin and Ethereal opened the doors to a new type of exchange that no one controls, unlike the current money market (Zubir *et al.*, 2020). Cyberspace becomes the managing agency that handles these disruptive markets and maintains them. The cost (along with other properties) of almost zero transactions has made these currencies even higher than the traditional money (Zulhuda & binti Sayuti, 2017). Therefore, it can indeed be said is that they are only the beginning, and there are endless possibilities.

13. Implication of the Study

Theoretical: As the name implies, meta-analysis is a statistical examination of data from independent primary investigations focused on the same subject (Gopalakrishnan & Ganeshkumar, 2013).

Methodological: The method of meta-analysis is theory building. As a powerful empirical research approach, meta-analysis is not well-known as a beneficial tool for theory-building.

Practical implication: The findings of this analysis offer valuable insights into reality. This study provides the Malaysian bitcoin market’s key insights and findings.

*Evidence-based implication***:** This research identified that Bitcoin understanding in Malaysia's digital market. Hence, it demonstrates the contribution to this research.

Population-based implication: This is one of the unique research where the bitcoin user of Malaysia is a population.

14. Limitation of Study

This study not focused on the liquidity crunch in Malaysian banks. Also, this study used only secondary data. Therefore, future studies should be conducted based on Primary and longitudinal data. It helps to understand how the relationship changes during this period.

15. Conclusion

In summary, Bank Negara Malaysia has sent repeated warnings of possible financial, operational and legal, and security risks to virtual currencies such as bitcoins. It also says that bitcoins can pose many security risks because there are no regulations that could lead to the misuse of bitcoins. The government should not accept cryptocurrency as a legal tender or a coin. In contrast, the government must do everything to excel in using such crypto assets to fund illegal activity or as part of the payment schemes. However, bitcoins or virtual currencies are unlawful and unregulated in the nation. Facebook said it bans advertisements of financial products and services often associated with cryptocurrency. Apart from that, Facebook also deceptive or disillusioning promotional activities, including binary options, initial coin offerings, and cryptocurrency according to revised marketing policies. Therefore, we need proper management to increase trust in cryptocurrency.

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