INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES
Vol 14, Issue 11, (2024) E-ISSN: 2222-6990

Bitcoin: Digital Currency Analysis Based on Siyasah Shariyyah

Ahmad Dahlan Salleh
The National University of Malaysia (UKM)
Email: dahlan@ukm.edu.my

Muhammad Amir Husairi Che Rani
Universiti Teknologi Malaysia (UiTM)
Email: amirhusairi@uitm.edu.my

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v14-i11/23338 DOI:10.6007/IJARBSS/v14-i11/23338

Published Date: 17 November 2024

Abstract
Bitcoin is one of the most popular digital currencies in its community. It commenced with various innovations with a focus on transforming the world's monetary system, meanwhile bitcoin is faced with legitimate constraints, absence of regulation and becoming a tool to illegal activities. Generally, this paper aims to discuss the operating mechanism of bitcoin, as well as the *maṣlaḥah* (public interest) and *mafsadah* (harm) that exist in the bitcoin financial system to measure its effectiveness in realizing the concept of *ḥifẓ al-Māl* (preservation of wealth). Additionally, this paper lists several views of Islamic scholars and fatwas (legal pronouncements) related to the status of bitcoin according to Sharia and analyzes the relevance of using bitcoin as an instrument of payment according to the perspective of *siyāsah sharciyyah* (Islamic politics). The outcome of this discussion will explain the position of bitcoin as a new currency according to the Sharia perspective in realizing *ḥifẓ al-Māl* (preservation of wealth)
Keywords: Bitcoin, Digital Currency, Maslahah, Mafsadah, Fatwa, Ḥifẓ Al-Māl, Siyāsah Shar[c]iyyah.

Introduction

Bitcoin is one of the digital currencies, becoming a new global phenomenon today. The presence of bitcoin in 2009 is considered an alternative currency to the existing fiat currency in transactions in this century. Based on the concept of freedom of payment, the demand for bitcoin arises since bitcoin users is freely making transactions. The usage of cryptography that monitors the movement of bitcoins makes bitcoin the first global currency that is not regulated by any authoritative agency (Meera 2018). Without government regulations, bitcoin users do not have to be concerned about legal provisions and restrictions in every transaction.

The emergence of bitcoin as the global' s first centralized currency has enticed investors' interest in using bitcoin as an instrument of payment. A total of 100000 transactions were recorded accepting bitcoin as an instrument of payment in their transactions. Furthermore, there is a point of view saying that bitcoin is a *halal* (permissible) currency according to Islamic legislation (Meera 2018). This can increase the usage of bitcoin as an instrument of payment amongst Muslims. Yet is bitcoin *halal* (permissible) according to Islamic legislation? Is bitcoin a safe currency to use in transactions as an instrument of payment? This question arose after several instances involving bitcoin transactions such as the usage of bitcoin as an instrument of payment in illegal narcotics transactions and the loss of bitcoins during the exchange process at Mt. Gox in February 2014 (Yermack 2014).

This paper will discuss the application of bitcoin as a currency and payment instrument according to the Sharia perspective. In addition, this paper discusses the relevance of bitcoin as a must-have currency according to *maqāṣid al-Sharīcah* (objectives of Islamic Jurisprudence) by comparing between *maṣlaḥah* (public interest) and *mafsadah* (harm) to ensure the status of relevance bitcoin as a good currency or not.

Bitcoin and its Operation Mechanism

Bitcoin is a version of digital cash that allows payments via online directly between two parties without the requirement to go through a financial institution as an intermediary (Nakamoto 2008). Bitcoin was created in 2008 by an unknown entity using a pseudonym, Satoshi Nakamoto. This currency does not depend on any central authority. Bitcoin relies solely on cryptographic principles. The name bitcoin also refers to the open software which goes through a peer-to-peer network. Unlike fiat currency, bitcoin is not based on trust in a central issuer whereby bitcoin uses a database disseminated to a peer-to-peer network for transactions by using cryptography that provides fundamental security functions such as ensuring that bitcoin can only be spent by those who own them at a time. The production of bitcoin will stop when it reaches 21 million coins to prevent hyperinflation. (Negurita 2014; Alberts & Fry 2015; Bohme et al., 2015).

To acquire bitcoins, virtual community members can purchase bitcoins with conventional money at companies that provide fiat money exchange services with bitcoins such as CoinBase, Luno and Bitstamp or mining bitcoins by using a computer to "hunt" numbers consisting of 64 digits. After solving several puzzles, users must compete with others to generate the numbers which the network is searching for. If the computer accomplished to find the number, the user will acquire 25 bitcoins. This process involves complicated mathematical calculations (Negurita, 2014; Alberts & Fry, 2015).

The Bitcoin system works through a combination of asymmetric public key, private key, and peer-to-peer. User will acquire two interconnected mathematical keys, which a private key that been stored in computer and a public key that is sent to the user who expects money. This is to ensure transaction security and user confidentiality. Each transaction will be recorded in a public ledger called blockchain. This blockchain will appear in every individual computer which is involved in bitcoin network. The identity of entities involved in bitcoin transactions will not be exposed as the bitcoin system adopts the concept of anonymity. Each bitcoin transaction is anonymous even though the transaction is recorded in the blockchain. The information about the party involved in the transaction is also anonymous. Seemly with the identity of the developer of the bitcoin system, Satoshi Nakamoto, who is anonymous, the bitcoin system was designed anonymously to give freedom in making transactions to its users (Nakamoto, 2008; Negurita, 2014; Hurlburt, & Bojanova, 2014; Alberts, & Fry, 2015; Godsiff, 2015).

In conjunction with the concept of anonymity, bitcoin users are free to make transactions without having to go through a financial institution as a third party. However, with the anonymity in the peer-to-peer bitcoin system that protects users' personal information data, the freedom to carry out transactions using bitcoin as a currency has been misunderstood. For example, the Silk Road portal, a market for the sale of narcotics and weapons, was closed by the FBI in 2013, utilize bitcoin as an instrument of payment. In addition, gambling also arose and grew with the existence of bitcoin as a currency that protects customer privacy information. Among the popular gambling sites that use bitcoin as a payment tool is Satoshi Dice, which has been operating since 2012. The managing director of BitInstasnt was arrested in January 2014 for money laundering (Luther & White 2014; Bohme et al. 2015; Kancs, Ciaian & Rajcianova 2015). Bitcoin also been used to fund terrorist activities. For example, one of Daesh's main earning is ‘fund rising’ which has been donated by using virtual currency by transferring bitcoins to Daesh's bitcoin account (Jawhar, 2016).

Like fiat currency, any acquired bitcoins will be safekeeping for future use. The main purpose of Bitcoin safekeeping is to protect the acquired bitcoins from theft. Fiat currency can be safekeeping in banks because fiat currency exists physically, but the idea of safekeeping bitcoin elsewhere is not likely, because bitcoin has no physical manifestation. Bitcoin is stored in computer software with high-level security, which is a digital wallet either in a computer or smartphone. To access the digital wallet, users need to log in with a private key to access bitcoin (Nakamoto, 2008; Negurita, 2014; Yermack, 2014; Hurlburt, & Bojanova, 2014). However, the level of security virtual wallet bitcoin digital is often a target for cybercriminals and no law to provide aid if the virtual wallet is being hacked. Bitcoin owners can lose their digital currency through online theft. December 2013 witnessed 96000 bitcoins stolen from Sheep Marketplace, an online drug website in China. A world-class leader has gone bankrupt while doing a bitcoin exchange transaction. Hundreds of millions of Dollars’ worth of bitcoins have been lost due to a failure in the Mt. Gox in February 2014 (Yermack, 2014; Luther & White 2014; Godsiff 2015; Kancs, Ciaian & Rajcianova 2015; Meera 2018).

As a new currency, there is no global accord on bitcoin's status as international law does not regulate bitcoin. The Internal Revenue Service in the United States allows bitcoin only as barter in transactions. The European Union does not give assurance about the status of bitcoin. Finland considers bitcoin a valuable commodity. Germany, on the other hand, allows bitcoin as a private currency only. Denmark stated that Bitcoin is neither a currency nor an asset. China and Russia prevent bitcoin as a payment instrument and forbid bitcoin from currency exchange. France and Korea have also stated that bitcoin is not a legal currency. India has warned users against bitcoins usage while each trade involving bitcoins is illegal. In 2014, Canada announced that bitcoin is not a legal tender. The Bank of Japan stated that bitcoin is an asset even though bitcoin cannot be a currency or financial instrument. The World Bank described bitcoin as a Ponzi scheme. Malaysia has regulated bitcoin and recognized it as a digital asset, not a currency. (Luther & White, 2014; Godsiff, 2015; Kancs, Ciaian & Rajcianova 2015; Jeans 2015; Meera 2018; Ministry of Finance Malaysia 2019).

With the ambiguity of bitcoin's legal status globally coupled with the abuse of bitcoin as well as problems related to bitcoin securities, the question arises whether bitcoin as an alternative payment tool is legitimate and reliable according to Sharia or not.

Bitcoin: between Maṣlaḥah (Public Interest) and Mafsadah (Harm)

Every invention and action in Islam must align with the objectives outlined in the Quran and Sunnah. Practices and actions have been carried out must be based on the concept of preservation that has been set out by *maqāṣid al-Sharīcah* (The objectives of Islamic jurisprudence), which is preserving religion, life, lineage, intellect and wealth so that all actions produce *maslaḥah* (public interest) for the perpetrator and society (Al-Qaraḍāwi 2000; Al -Raysūni 2010). Money management must also be based on the concept of wealth preservation (ḥifẓ al-Māl). This ensures that every acquired income is clean and pure, free from elements that lead to Allah's prohibition.

The usage of bitcoin as an alternative payment instrument in transactions shall bring *maṣlaḥah* (public interest) to its users. Among the *maṣlaḥah* (public interest) that occur in using bitcoin as an instrument of payment are:

a) The world's first centralized currency.

b) The peer-to-peer concept allows users to make transactions without the hassle of going through a financial institution as a third party.

c) Users do not have to pay service charges as practiced in conventional financial systems.

d) The concept of anonymity ensures that the identity of individuals and goods involved in the transaction remains anonymous even though the transaction is recorded in the blockchain.

e) Virtual wallet access facility equipped with a high level of security only using the internet.

However, there are advantages and *maṣlaḥah* (public interest) provided in the bitcoin financial system, several issues lead to *mafsadah* (harm) in usage as an instrument of payment. Among them are:

a) The ambiguity of bitcoin's status as a legal tender at the international level.

b) Abuse of bitcoin's anonymity as an instrument of payment in the narcotics market, arms sales, money laundering and gambling.

c) Utilizing bitcoin for financing terrorism such as Daesh (Jawhar 2016).

d) The absence of physical manifestations that lead to the element of *gharar* (uncertainty) (Abu Bakar, Rosbi & Uzaki 2017).

e) The usage of bitcoin in *bayc al-Ṣarf* (currency exchange) contains elements of *riba* (usury) (Zahudi & Amir 2016).

f) Volatility of bitcoin price is very extreme

g) Malfunction and failure of the bitcoin system that causes the loss of owned bitcoins.

h) The virtual wallet system has always been targeted by cybercriminals who cause the theft of bitcoins.

Fatwas (Legal Pronouncement) and Point of View of Islamic Scholars on Bitcoin

Based on *maṣlaḥah* (public interest) and *mafsadah* (harm) there are several points of view from Islamic scholars and several *fatwas* (Legal Pronouncement) have been issued expressing the status of bitcoin according to the Sharia perspective. Muntadā al-Iqtiṣād al-Islāmi (2018), stated the necessity of bitcoin usage as an instrument of payment since it is a *mutaqawwam* (valuable property). Kahf (2017), has mentioned specifically that bitcoin is a legal currency.

Bitcoin is a currency that does not contain *riba* (usury) (Evans 2015). Adam (2017), opined that bitcoin is a currency and one is required to pay zakat because it has monetary value.

Abu Bakar (2018), stated that the use of bitcoin as a currency is permissible, and bitcoin is categorized as an asset according to Shariah. South African scholars including Taha Karaan have decided that bitcoin is considered as *māl* (property) based on public acceptance. The lack of regulation is not an issue for bitcoin to be considered as an asset. Darul Uloom Zakaria (House of Knowledge Zakaria) stated that bitcoin is *māl* (property) and allowed to be used as a currency. South African Mufti, Siraj Desai, also stated that bitcoin is valid for use in transactions just like physical currency (Mahomed & Mohamad 2017). According to Bakar (2019), the use of digital currency such as bitcoin is nearer to the concept of *maqāsid al-Sharīcah* (Objectives of Islamic law) compared to fiat currency.

Yet, despite of the view that supports the usage of bitcoin as a currency, there are views and *fatwas* (legal pronouncements) that prohibit the use of bitcoin. *Dār al-Iftā' al-Misriyyah* (House of Fatwas of Egypt) (2018), has issued a *fatwa* (legal pronouncement) on bitcoin trade trasing is *haram* (prohibited) by Sharia as bitcoin is not publicly accepted as a payment instrument. Bitcoin also does not meet the criteria and characteristics of currency, and bitcoin transactions contain elements of ambiguity, ignorance, and identity fraud. The characteristics and value of bitcoin are unclear, leading to uncertainty. Bitcoin can also be easily used for illegal transactions, and its high volatility poses risks and harm. *Al-Hay'ah al-cĀmmah li al-Shu'ūn al-Islāmiyyah wa al-Awqāf* (2018), (General Authority of Islamic Affairs and Endowments) has also issued a fatwa prohibiting the use of bitcoin because it does not comply with Shariah and the law. *Dar al-Ifta' al-Filistiniyyah* (2018), (Palestinian Fatwa House) says that conducting transactions using bitcoin is prohibited because there is a significant gap in value. The buying and selling of bitcoin fall under *bayc al-Majhūl* (sale of an unknown or unspecified commodity) and *bayc al-Gharar* (sale of uncertainty), which are prohibited in Islam. The use of bitcoin is prohibited because it involves excessive uncertainty, which leads to gambling.

According to the Turkish Directorate of Religious Affairs or Diyanet (2018), the sale and purchase of digital currencies such as bitcoin do not comply with Shariah law because it contains speculative elements and can easily be used for illegal activities such as money laundering. The Council of Ulama in South Africa rejects the recognition of bitcoin as a currency, stating that Shariah-compliant currency must be legal tender by government. The prohibition of bitcoin usage is due to the fact that owning and exchanging bitcoin involves gambling. Wifaqul Ulama, Haitham al-Haddad, Dār al-Iftā' Deoband (House of Fatwas of Deoband), Imran Husain, and Assim al-Hakeem have also stated that bitcoin is *haram* (forbidden) because it is not issued by any country and there is an element of gambling in bitcoin mining. In addition, the extreme volatility of bitcoin prices and its use in financing terrorism pose serious risks (Mahomed & Mohamad 2017; Haq & Ali 2018). The Federal Territories Mufti, Zulkifli Mohamad al-Bakri (2018), has also issued a fatwa on the use of bitcoin as currency to be prohibited because it is not sharia-compliant.

Analysis of Bitcoin from the Perspective of Shariah Governance

According to Sharia, the usage of bitcoin as an instrument of payment in transactions is permissible. This has been elucidated by the word of Allah says (al-Quran, al-Baqarah 2: 275):

وأحل الله البيع وحرم الربوا

Meaning: Allah has permitted trading and forbidden interest.
The use of a currency in buying and selling transactions is *halal* (permissible) according to Islam, as long as the transaction is clean and free from usury, which is prohibited by Islam. The requirements for using bitcoin as a currency in transactions also include the following methods:"

الأصل في الأشياء الإباحة

Meaning: The original ruling for things is permissibility. (al-Suyuti 2006).

The necessity to use Bitcoin as an instrument of payment in transactions still requires preserving the concept of *ḥifẓ al-Māl* (preservation of wealth), so that it remains relevant according to Shariah.

Though the usage of bitcoin as an instrument of payment comprises in *thawābit* (fundamental principles) which is permissible, yet the law of the requirement can be altered if there is greater mafsadah (harm) that outweighs the parameter of *maslahah* (public interest). *Al-Muwāzanāt bayn al-maṣlaḥah wa al-mafsadah* (The balance between public interest and harm) needs to be assessed when considering the pros and cons of using Bitcoin as a payment instrument (Al-Qaraḍāwi 1998). This is to determine whether the use of Bitcoin is inclined towards *maslahah* (public interest) or *mafsadah* (harm). However, upon evaluating the comparison between the maslahah (public interest) and *mafsadah* (harm) of using Bitcoin as a payment instrument, as well as the fatwas and views of Islamic scholars on the status of Bitcoin, it can be concluded that the likelihood of *mafsdah* (harm) is greater than the *maslahah* (public interest) in the Bitcoin financial system. Fatwas and views issued on the prohibition and banning of Bitcoin are more accurate than those that allow its usage. This is based on the Qawaid al-Fiqhiyyah (Islamic Maxims) as follows:"

درء المفاسد أولى من جلب المصالح

Meaning: Preventing harm takes precedence over bringing benefits. (al-Suyuti 2006, Ibn Nujaym 1999)

The government's action of not recognizing Bitcoin as a legal currency and intrument of payment is in line with the concept of siyāsah sharᶜiyyah (Shariah Governance), which changes in laws are decisions made by the ruler (Ḥakīm 2012) and the changes made is based on Sharia context and it is part of the *thawabit* (established principles) which is based on Sharī'ah evidence as Allah SWT prohibits *riba* (usury) and is strengthened by the prohibition of Prophet Muhammad SAW from engaging in transactions that involve *gharar* (uncertainty) (Muhammad Amir Husairi & Anwar Fakhri 2016). Furthermore, this action is based on the Islamic Maxim:

تصرف الإمام على الرعية منوط بالمصلحة

Meaning: Actions of the ruler with regards to society are based on the principle of public interest. (Al-Suyuṭi 2006; Ibn Nujaym 1999).

Even though usage of bitcoin as an instrument of payment provides several *maṣlaḥah* (public interest) to it users, the government's action which do not acknowledge bitcoin, as well as the fatwa that prohibits its usage, can be seen to shut the door from *mafsadah* (harm).

This action is consistent with the Islamic maxm of *sadd al-dhara'i*, which seeks to prevent harm from occurring, even if it appears to offer benefits on the surface (Al-Zuḥayli, 2014).

The action to restrict the usage of bitcoin through legislative by the government, and its prohibition by muftis, is the accurate measure in preserving the *maṣlaḥah* (public interest) of Muslims and applying the concept of *ḥifẓ al-Māl* (preservation of wealth), as well as upholding the concept of *ḥifẓ al-Dīn* (preservation of religion), which is a fundamental part of *Maqāsid al-Sharīcah* (Objectives of Islamic Jurisprudence) and *siyāsah sharʿiyyah* (Islamic governance).

Conclusion

In realizing the concept of *ḥifẓ al-Māl* (preservation of wealth), the use of Bitcoin as a currency and alternative payment tool should be forgotten. Despite the various innovations introduced in the Bitcoin financial system that benefit its users, the existence of Bitcoin abuse that brings *mafsadah* (harm) cannot be ignored. This is to ensure that the currency held and stored for future use is safe from all forms of crimes that lead to the loss and theft of the currency held.

It cannot be denied that the bitcoin system comes with high security, but with various cases of cyber theft recorded, it has become an unsafe currency. The high value of bitcoin attracts interest in owning it, but the extreme volatility of its value makes it a weak currency. Extreme changes in value create speculation, which is prohibited in Islam during the exchange process. Furthermore, cases of bitcoin loss during the exchange process strengthen the argument that the use of bitcoin is more susceptible to *mafsadah* (harm) than *maslahah* (public interest). The lack of government accord for accepting bitcoin as a legal payment method, coupled with a fatwa prohibiting the use of bitcoin, further undermines the relevance of bitcoin as a widely accepted currency. The presence of *riba* (usury) and *gharar* (uncertainty) elements in bitcoin transactions, due to the absence of physical manifestation, caused the concept of *ḥifẓ al-Māl (*preservation of wealth) unrealizable.

Therefore, the use of bitcoin as an instrument of payment in transactions and its ownership as an asset should be avoided and prevented in order to realize the concept of *ḥifẓ al-Māl* (preservation of wealth). Although the use of bitcoin as an instrument of payment can provide many benefits to its users, its use will give soar to more misuse, leading to greater potential for *mafsadah* (harm). In this respect, the authors welcome comments, feedback or suggestions from regulators, financial institutions and other Islamic finance practitioners on the proposed the position of bitcoin as a new currency according to the Sharia perspective which may benefit their respective institutions or the industry as a whole.

References

Abu Bakar, M. (2018). Shariah Analysis of Bitcoin, Cryptocurrency and Blockchain. *Blossom Labs Inc*, https://blossomfinance.com/bitcoin-working-paper. [5 April 2017].

Abu Bakar, N., Rosbi, S. & Uzaki, K. (2017). Cryptocurrency Framework Diagnostics from Islamic Finance Perspective: A New Insight of Bitcoin System Transaction. *International Journal of Management Science and Business Administration, Vol 4*, 19-28.

Adam, F. (2017). *Bitcoin: Shariah Complaint?*. www.afinance.org.

Alberts, J. E., & Fry, B. (2015). Is Bitcoin Security?. *Boston University Journal of Science and Technology Law, Vol 21.*

Al-Hay'ah al-ᶜĀmmah li al-Shu'ūn al-Islāmiyyah wa al-Awqāf (General Authority of Islamic Affairs and Endowments). (2018). *Ḥukm al-Taᶜāmul bi al-Bitkuwīn.* https://www.awqaf.gov.ae/ar/Pages/FatwaDetail.aspx?did=89043.[30 Januari 2018].

Al-Qaraḍāwi, Y. (1418H/1998). *Al-Siyāsah al-Sharᶜiyyah fi Ḍaw' Nuṣūṣ al-Sharīᶜah wa Maqāṣidiha* (Sharia Policy In Light Of Sharia Texts And Objectives). Kaherah: Maktabah Wahbah.

Al-Qaraḍāwi, Y. (1421H/2000). *Fi Fiqh al-Awlawiyyāt Dirāsah Jadīdah fi Ḍaw' al-Qur'ān wa al-Sunnah I* (Jurisprudence of Priorities: A New Study in Light of the Qur'an and Sunnah). Kaherah: Maktabah Wahbah.

Al-Raysūni, A. (1431H/2010). *Madkhal ila Maqāṣid al-Sharīᶜah* (Introduction to the Objectives of Shariah). Mansoura: Dār al-Kalimah.

Al-Zuḥayli, W. (1435H/2014). *Al-Wajīz fi Uṣūl al-Fiqh* (The Summary in the Principles of Islamic Jurisprudence). Damsyik: Dār al-Fikr.

Bakar, M. D. (2019). *Cryptocurrency: An Holistic and Contemporary Syariah Analysis (Part V).* https://coin.my/op-ed/cryptocurrency-an-holistic-and-contemporary-syariah-analysis-part-v/. [16 Januari 2019].

Dār al-Iftā, al-F. (2018). *Majlis al-Iftā' al-Aᶜlā yaḥrum al-Taᶜāmul bi al-Bitkuwīn* (The High Council of Fatwa Prohibits Dealing with Bitcoin). http://darifta.org/news/shownew.php?title=مجلس%20الإفتاء%20الأعلى%20يحرم%20التعامل%20بالبيتكوين . [4 Januari 2018].

Dār al-Iftā, al-M. (2018). *Mufti al-Jumhūriyyah yubayyin ḥukm al-Taᶜāmul bi al-ᶜUmlah al-Iliktirūniyyah al-Bitkuwīn* (Mufti of Republic Clarifies the Verdict on Dealing with Digital Currency Bitcoin)*".* http://www.daralifta.org/ar/Viewstatement.aspx?sec=media&ID=5617. [1 Januari 2018].

Diyanet. (2017). *Bitcoin 'not compatible with Islam', Turkey's religious authorities say.* https;//www.euronews.com/2017/11/28/bitcoin-is-not-compatible-with-islam-turkeys-religious-authorities-say. [28 November 2017].

Evans, C. W. (2015). Bitcoin in Islamic Banking and Finance. *Journal of Islamic Banking and Finance*, Vol 3, June 2015, 1-11.

Godsiff, P. (2015). Bitcoin: Bubble or Blockchain? *Agent and Multi-Agent Systems: Technologies and Applications*, 191-203.

Haq, H. B., & Ali, S. T., (2018). Navigating The Cryptocurrency Landscape: Islamic Perspective. *6th International Conference on Islamic and Liberty* (pp. 1-12). Islamabad: Islamic and Liberty Network.

Hurlburt, G. F., & Bojanova, I. (2014). Bitcoin: Benefit or Curse? *IEEE Computer Society*.

Jawhar, J. (2016). *Terrorists' Use of the Internet: The Case of Daesh.* Kuala Lumpur: The Southeast Asia Regoinal Centre for Counter-Terrorisme (SEARCCT).

Jeans, E. D. (2015). Funny Money or the Fall of Fiat: Bitcoin and Forward-Facing Virtual Currency Regulation. *Colorado Technology Law Journal, Vol 13*, 99-128.

Kahf, M. (2017). *How Does Islam View Bitcoin and Other Cryptocurrencies?* http://aboutislam.net/counseling/ask-the-scholar/financial-issues/islam-view-bitcoin-cryptocurrencies/. [7 Disember 2017].

Kancs, D., Ciaian, P. & Rajcianova, M. (2015). The Digital Agenda of Virtual Currencies: Can Bitcoin Become a Global Currency? *Publications Office of the European Union*, 1-46.

Kementerian Kewangan Malaysia. (2019). *Siaran Media: Penguatkuasaan Perintah Menetapkan Aset Digital Sebagai Sekuriti Bermula Esok.* Kuala Lumpur: http://www.treasury.gov.my/index.php/galeri-aktiviti/siaran-media/item/4802-siaran-media-penguatkuasaan-perintah-menetapkan-aset-digital-sebagai-sekuriti-bermula-esok.html. [14 Januari 2019].

Luther, W. J., & White, L. H. (2014). Can Bitcoin Become a Major Currency? *GMU Working Paper in Economics, George Mason University.*, 14-17.

Mahomed, Z., & Mohamad, S. (2017). *Crypto Mania: The Shariah Verdicts.* Kuala Lumpur: Centre for Islamic Asset and Wealth Management.

Meera, A. K. M. (2018). Cryptocurrencies from Islamic Perspective: The Case of Bitcoin. *Bulletin of Monetary Economics and Banking, Vol 20, Number 4*, 475-492.

Muntadā al-Iqtiṣād, I. (2018). *Bayān Muntadā al-Iqtiṣād al-Islāmiyy bi Sha'n Mashrūᶜiyyat al-Bitkuwīn* (Declaration of the Islamic Economic Forum on the legality of Bitcoin) *Bitcoin no 1/2018.* https://ar.islamway.net/book/29586/-بيان-منتدى-الاقتصاد-الا-سلامي-بشا-ن-مشروعية-البتكوين . [11 Januari 2018].

Nakamoto, S. (2008). Bitcoin: A Peer-to-Peer Electronic Cash System. *www.cryptovest.co.uk*. [31 Oktober 2008].

Negurita, O. (2014). Bitcoin - Between Legal and Financial Performance. *Contemporary Readings in Law and Social Justice, Vol 6.*, 242-248.

Yermack, D. (2014). Is Bitcoin a Real Currency? An Economic Appraisal. *NBER Working Paper No. 19747*.

Zahudi, Z. M., & Amir, R. A. T. R. (2016). Regulation of Virtual Currencies: Mitigating the Risks and Challenges Involved. *Journal of Islamic Banking and Finance, Vol 5*, 63-73.