بسم الله الرحمن الرحيم

Cryptocurrency as The Future for Society

Wasie[1], Adha[2] & Fazrihan[3]

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Introduction

Cryptocurrency is a fast-growing medium of exchange in today's financial technology (i.e. Fintech). This digital currency has features such as secure online payments, transparency in transactions, making it hard to be printed by the central bank. Decentralised by millions of computers around the world, cryptocurrencies render features that are theoretically immune to manipulation and interference. This digital asset vibrates in the current Islamic economy, as the demands for Bitcoins, Ethereum surged, provoking debates among scholars on its permissibility for the future of the Islamic economy. Furthermore, the interest for this innovation extends into the Gulf and Southeast Asia countries, and at the time of writing this paper, regulators, Shariah scholars, practitioners and academics have begun to see its significance in the financial services industry; some tested the technology. But do we know its advantages, and do we sit well with Shariah to benefit the international community?

Disruptive Digital Currency

Fiat money is a legal tender made by the government and it is backed by an index of goods and services. On the other hand, cryptocurrency is a digital asset that combines the science of cryptography[4] with blockchain technology to enable financial transactions. Its value depends

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[1] Mufti Dr Muhammad Wasie Fasih is the director of Alhamd Shariah Advisory services PVT LTD. He can be contacted at wasiefasih@hotmail.com
[2] Dr Adha Shaleh is a freelance researcher and a columnist. He was a researcher with IAIS Malaysia (2016-2019). He can be contacted at anthroad@gmail.com
[3] Ust Fazrihan Duriat is a Shariah consultant in PERGAS Investment and an advisor to Islamic Business & Finance Society of Singapore Management University. He can be contacted at fazrihan@gmail.com.
[4] There are various consensus protocols which are used in cryptocurrency. They ensure the network operates smoothly as every user will have a common version of the blockchain which avoids conflicts and confusion when interacting with other users. For example, there are Proof of Work in which each digital coin is generated by solving challenging cryptographic puzzles through the using computational power and electricity. Another include Proof of Stake which investors can earn interest which is based on the amount they have earlier put, for the purpose

on supply and demand, making it susceptible to volatility in the market. This question focuses on the role of technology on society and its benefits to the financial world.

One of the many advantages in digital currency platforms is that the transaction between two people goes through without intermediaries. It exists in the cyberspace under individuals' ownership, which is a computerised database in order to secure transactions. In today's businesses ecosystem, digital transaction is the new normal in the times of booming e-commerce and in the times when Bitcoin becomes convenient in its transaction. Thus, this existing infrastructure in their businesses will only invite others to use cryptocurrency. Even though it is not yet a globally recognised currency, it is hard to argue that ceding control of money supply to central banks curtail the freedom of the people. Another associated advantage with cryptocurrency is to cut down the expensive cost and time related to the transaction. It is often the case when there is a third party involved in the exchange process.

The New Outlook in Finance

To date, we are aware that there are few countries have adopted national cryptocurrencies.[5] So, this digital currency has the potential to replace fiat currency in the future. But does it serve the best interest of society? For the sake of exploring possibilities in digital currency, we contend that this platform could catalyse infinite supplies of digital currency. If crypto replaces fiat money one day, and it becomes well known for its decentralised features, that means no one has the authority to control the supply. One key element in crypto is that it facilitates cross-border payments without the need for banks to act as intermediaries. However, the concern here is that we do not know the person behind the computer. Could this anonymity lead to an unpredictable value of cryptocurrency? If it does, is this instability a bad thing[6] for society?

In case people are wondering what our governments are thinking, below are some pointers:

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of validation in the network. This could be deemed as haram. Other protocols include Proof of Funds, Proof of Activity and Proof of Capacity which will not be discussed in this paper.

[5] The countries include China (Digital Yuan), Venezuela (Petromoneda), Dubai (emCash), Senegal (eCFA) and Marshall Islands (SOV). Even J.P. Morgan became the first U.S. bank to launch JPM Coin to enable instantaneous transfer of payments between institutional clients.

[6] Bitcoin has been the de facto currency of ransomware. It is easily purchased via an exchange, using either a credit card, debit card or bank transfer. Besides, its accessibility and ease of use make it more likely for victims to pay the ransom. In addition, people can buy anything they wish to with Bitcoin, from drugs to other banned items, even from the 'Dark Web'.

- In Malaysia, the regulators of crypto assets are the Securities Commission Malaysia and Bank Negara Malaysia. Cryptocurrencies are not recognised as a means of payment and are not classified as legal tender by Malaysian regulators.
- In Singapore, cryptocurrencies are not regulated by the Monetary Authority of Singapore (“MAS”). They are not legal tender or securities. However, anyone who buys or sells cryptocurrencies, or facilitates the exchange of cryptocurrencies may be regulated under the Payment Services Act 2019 for money-laundering and terrorism financing risk only. MAS believes that crypto and its were not suitable for retail investors because they did not have intrinsic value and subject to volatile pricing due to speculation. MAS regulates crypto derivative products that were listed and traded only on approved exchanges.
- In Pakistan, the State Bank of Pakistan banned the use of cryptocurrency as people in the country may not be aware that such digital currency can be used to scam them. However, the regulator may launch its own digital currency by 2025.

Crypto Effects on Society

Cryptocurrency, like fiat money, might have specific negative externalities to society. Especially true if there are concerted efforts to decentralise the digital currency, rendering to the manipulation of price measurement, by the wealthy and big conglomerates. Because of such manipulation, people's wealth can lose value. As we have mentioned at the outset of this paper, there is an infinite supply of cryptocurrency on digital platforms. That means no one can be certain on who controls it. The fact that 'we do not know who controls it' implies that there is centralised control and that there are people who are controlling it. Unfortunately, we just do not know them. When Bitcoin was invented in 2008, an unknown person created it, and some people have speculated that there is a group of people who invented it. Therefore, when these unknown groups of individuals first introduced the currency in 2009, the value did not exceed USD1. However, since it has gained worldwide popularity, the value has continued to rise. The price started at USD 966.00 in 2017, and rose sharply to USD19, 850 in mid-December, followed by a sharp decline of USD12, 000 in the next few days. This instability remains a concern to the public interest, and if it continues unabated, this Bitcoin phenomenon could end up heading to a bubble burst, and it fails to work to the advantages of the people.

The Voice of Shariah On Crypto

The main objectives of the *Shari'ah* (or *maqasid al-Shari'ah)* are to ensure the well-being and welfare of humanity both in this temporal world and the hereafter. *Maqasid* is the key to understand the *Shari'ah* in its right perspective better. Imam al-Ghazali (d. 505 AH/1111 AC) defined *maqasid* by stating the following: "The main objective of the *Shari'ah* is to promote the public interest and the well-being of the people, which lies in the preservation of their religion *(din),* their life *(nafs),* their intellect *('aql),* their progeny *(nasb)* and their wealth *(mal).* Whatever ensures and covers the safeguarding of these five origins, and it is a public interest, and whatever leaves these five, it is harmful and against the public interest". *Maqasid Shariah* creates a balance in the use of information technology so that the application takes into account goodness *(maslahah)* and avoid of any harm *(mafsadah)* either to individuals or communities (Saad, 2019)[7]

Some researchers argue that preservation of property or also known as an objective of *Shariah* in property (*al-mal*) can be divided into three aspects which is the circulation of wealth, fair and transparency, and justice. For example, hoarding wealth is not allowed in Islam as it will stop or at least slow down the circulation of wealth in society. (Noh, 2020)[8]

From Shariah perspective on leveraging new technologies for the economy and society should be in a legitimate manner under the vision of Islamic law principles; emphasise its benefits in actual economic activity, in particular, the avoidance of all harmful activities, including interest, ambiguity (*gharar*), speculation (*maysir*) in transactions and contracts. A closer examination of Islamic induced cryptocurrency, for instance, could provide an appropriate framework to regulate it in future. In this regard, the speculation of whether it is permissible or otherwise can be minimised, if it supports the real economic activities with fewer barriers and conflicts. This is the soundest form of an economic system that focuses on the benefits of people. That means any capital and digital resources are used to bring in productive labours and businesses for people in society. The pioneers of the cryptocurrencies in the Muslim world have to spur innovation, creativity, entrepreneurship and to lead a less polarised world by narrowing the equality gap. These businesses that have more exceptional ability to invest in

[7] Saad and Fisol (2019), Financial Technology (FinTech) Services: Analysis from The Perspective of Maqasid Al-Shariah, Journal of Social Science and Humanities, 2 (6): 6-11, 2019

[8] Noh and Abu Bakr (2020) Cryptocurrency as A Main Currency: A Maqasidic Approach, Al-Uqud: Journal of Islamic Economics, Volume 4 Issue 1, January 2020

projects that accords with the public interest surely are worthy of consideration. In other words, cryptocurrencies must meet standards, as well as the evolving changes in regulations. Furthermore, using digital currencies to drive the economy of the people should proceed with the following four parameters:

1. **Circulation** (*rawaj*). The currency must always circulate to the widest possible place and society. From an Islamic perspective, money is exclusively used for an exchange, not for speculation or trading to gain profit purposely. Taking financial benefit from money trading can be categorised as usury (riba). This case occurred in 1250 AD. The circulation of the dinar decreased. This is because people minted dinar and hoarded it. When one medium of exchange is not used for a transaction, it can increase the price because of the low supply. Therefore, demand would increase in this case. In the case of Bitcoin, in the last year, the total transaction per day was only 150.000–350.000 while the total Bitcoin increased until almost 17.600.000 units. This means that only 2% of the units were used for transactions. This would hamper the situation as the total number of transactions was decreasing compared to the entire Bitcoin.[9]

2. **Clarity** (*wuduh*). The currency must be able to preserve and store the value and not subjected to manipulation.

3. **Stability** (*thubat*). The currency gives price measurement and is not manipulated by the rich and big conglomerates banks or governments. According to Meera (2018), the stability of value function is crucial because if money fails to preserve its value reasonably well in the long run, then that would jeopardise the *maqasid al-shariah*, particularly the protection of wealth (*hafiz al-mal*) function. If people save money for the future, but the value of money keeps depreciating over time, then people would lose that money wealth in time. This contradicts *maqasid al-shariah*. Hence it is of paramount importance that money plays the 'store of value' function well. The store of value function is indeed a litmus test as to the validity of a medium of exchange in Islamic economics and finance. The price of bitcoin has been soaring lately. Just in

[9] Siswantoro and others (2020), The Requirements of cryptocurrency for money, an Islamic view, heliyon 6 (2020) e03235

2017, its price has increased by more than 1,900%, from a USD1000 per bitcoin to USD20,000 by mid-December[10]

4. **Justice** (*'adl*). Generally, we understand the idea of justice as closing the disparity between the rich and the poor. Money without intrinsic value has an element of injustice embedded in them and that they promote *fasad* on earth. In contrast, money with intrinsic value is compatible with the *maqasid al-shari'ah* and promote socio-economic justice ('adl). [11] Human history has shown us that the means of a transaction has evolved into many forms. From the barter system, and to the period where the world has experienced an unprecedented accumulation of gold and silver (i.e. *dinar* and *dirham*), to the era of fiat (i.e. paper money) and credit cards (i.e. plastic money), to the most present form of digital money. In our opinion, based on our findings in Islamic eschatology, this will likely to be the trend moving forward for the next 3 to 5 years. UAE is a good example when they came up with their national cryptocurrency, referring Maliki fiqh where paper money has previously been a matter of practical consensus in Islam. Cryptocurrency has its fair share of advantages and disadvantages. While the majority of scholars have either declared its impermissibility or expressed uneasiness on this matter[12], some scholars allow it while the rest decided to adopt the conservative approach of *tawaqquf* (i.e. admission to having insufficient reason to justify an opinion on this matter).

Marjan (2017) found that bitcoin is

- Not a commodity because it lacks the characteristics of shariah-compliant commodity as a commodity must have an intrinsic value that can be benefitted from;
- Not a currency in the light of Shariah as it is a legal tender in many countries where the government does not confer it[13]. The objective of imposing this condition is to regulate the

[10] Meera (2018) Cryptocurrencies from Islamic perspective: the case of Bitcoin, bulletin of monetary economics and banking, volume 20, number 4, April 2018:475-492

[11] Meera (2018) Cryptocurrencies from Islamic perspective: the case of Bitcoin, bulletin of monetary economics and banking, volume 20, number 4, April 2018:475-492

[12] Some of the potential non-Shariah compliant elements of a cryptocurrency identified by scholars of *muamalat* (Islamic law of commercial transactions) include the lack of consensus by public or recognition by the government (i.e. *ameer*), its huge volatility, Shariah issues in proof of work or proof of stake and *gharar* (uncertainty) due to anonymity of the parties in effecting an *aqad* (transaction), resulting in an invalid contract i.e. *bay majhul* (i.e. contract with uncertainty as to the price, object of sale, or settlement date).

[13] The conferment of legal tender to any cryptocurrency by the government is also a condition imposed by two other prominent scholars ie Mufti Sheikh Taqi Usmani and Prof Monzer Kahf.

inflation and deflation risk that may harm the value of the currency and the underlying purchasing power it holds. this condition is in line with Ibn Qayyim's statement which says "

وَالثَّمَنُ هُوَ الْمِعْيَارُ الَّذِي بِهِ يُعْرَفُ تَقْوِيمُ الْأَمْوَالِ، فَيَجِبُ أَنْ يَكُونَ مَحْدُودًا مَضْبُوطًا لَا يَرْتَفِعُ وَلَا يَنْخَفِضُ؛ إذْ لَوْ كَانَ الثَّمَنُ يَرْتَفِعُ وَيَنْخَفِضُ كَالسِّلَعِ لَمْ يَكُنْ لَنَا ثَمَنٌ نَعْتَبِرُ بِهِ الْمَبِيعَاتِ، بَلْ الْجَمِيعُ سِلَعٌ، وَحَاجَةُ النَّاسِ إلَى ثَمَنٍ يَعْتَبِرُونَ بِهِ الْمَبِيعَاتِ حَاجَةٌ ضَرُورِيَّةٌ عَامَّةٌ، وَذَلِكَ لَا يُمْكِنُ إلَّا بِسِعْرٍ تُعْرَفُ بِهِ الْقِيمَةُ، وَذَلِكَ لَا يَكُونُ إلَّا بِثَمَنٍ تُقَوَّمُ بِهِ الْأَشْيَاءُ، وَيَسْتَمِرُّ عَلَى حَالَةٍ وَاحِدَةٍ، وَلَا يَقُومُ هُوَ بِغَيْرِهِ؛(إعلام الموقعين عن رب العالمين)

The thaman (price) is the standard by which the value of [all other forms of] wealth is known. It is obligatory that it be precisely defined and regulated so that it does not rise and fall. That is because if what serves as the price were to rise and fall as commodities do we would not have a price [standard] by which to appraise what is being sold. Instead, everything becomes a commodity. People's need for a quotation by which all items of sale are appraised is essential and universal. That is not possible except by a price (siʿr) by which value can be known. and that is not possible except by a medium of exchange (thaman) by which things can be evaluated, and it must remain in one state and not be measured in terms of something else."

- Nor a financial asset because Islamic law emphasis that a financial asset must be backed by underlying assets/shariah-compliant investment activities and this feature is missing a bitcoin [14]

Meera (2018) examines the implication of bitcoin on Islamic finance and questions its acceptance as a medium of exchange (money) based on its compliance with Shariah. By analysing its nature and characteristics, his paper concludes that cryptocurrencies that are not backed with real assets are not Shariah-compliant. However, shariah scholars are scrutinising how bitcoin can be permissible based on maslahah. Bitcoin is neither fiat money nor real

[14]Marjan (2017), Shariah Analysis of Cryptocurrency: Bitcoin, a presentation made at Shariah fintech forum, 8 November 2017, Hilton Hotel, Petaling Jaya.

money. The absence of intrinsic value with lack or zero supervision by the central bank may result in exploitation.

Furthermore, we contend that it has elements of maysir and gharar. These can contribute towards socio-economic injustice, thereby jeopardising the *Maqasid Al Shariah*. Hence based on thorough analysis, he concludes that the fiat cryptocurrencies are not Shariah-compliant. However, gold-backed cryptocurrencies are argued to be desirable and consistent with the *Maqasid Al Shariah*[15]

Faraz (2018) finds that there are different types of cryptocurrency coins and tokens. Currency coins such as Bitcoin, Litecoin and Ripple are of two types: (1) Coins which are accepted by merchants and (2) those coins which are not accepted by high street merchants and companies beyond the network. From a Shariah perspective, since both types are to serve as a peer-to-peer payment system, they will be deemed as currencies. The ta'amul (common usage) and istilah (social concurrence) among users of these coins are that of currency and medium of exchange. The issued tokens can vary widely depending on their design and functions. Some of the common types of tokens include work tokens, utility tokens, asset-backed tokens, revenue tokens, equity tokens, buy-back tokens. Work tokens give owner permission to contribute, govern, and "do work" on a blockchain and are like licenses. Thus, they are within the ambit of al-huquq al-'urfiyyah and are similar to the right of passage (haqq al-murür) which can also be sold on a secondary market according to the majority of scholars. Same is the case of the utility tokens which are rights to services or units of services that can be purchased. The asset-backed token is similar to Sukuk al-Ijarah and Sukuk al-Murabahah in the sense that the tokens represent beneficial ownership and interest in the underlying asset. Revenue tokens are issued under the promise of participation in future revenues and can be made Shariah-compliant by giving investors equity and risk-sharing opportunity. Equity tokens represent equity in the issuing company; therefore, Shariah screening of the core business activity and their financial statements must be carried out like the screening methodology of shares. The buy-back tokens can be Shariah-compliant depending on the structure and agreement of such tokens. However, if the subsequent sale is contingent on the initial sales contract and is agreed upon in the first contract, then there could be an element of combination of contracts which potentially could risk non-shariah compliance. Faraz concluded that it would be inaccurate to give one ruling for

[15] Meera (2018) Cryptocurrencies from Islamic perspective: the case of Bitcoin, bulletin of monetary economics and banking, volume 20, number 4, April 2018:475-492

all cryptocurrencies when tokens sales and projects on blockchains can be structured in various ways.[16]

The Islamic Religious Council of Singapore, MUIS, has not provided a written statement to-date, but the majority of Muslim scholars in Pakistan, Bangladesh and Sri Lanka are not inclined to cryptocurrency. Similar religious opinions have been issued by institutions e.g. Al-Azhar University (Egypt), Dar al Mustafa (Yemen), Darul Uloom Deoband (India), Wifaqul Ulama (UK), Islamic Economic Forum, etc.

The Mufti of the Federal Territory of Malaysia has provided an explanation on 15 Nov 2018 that Bitcoin does not fulfill the criteria as money and it can potentially endanger the well-being of the community and financial system of a country. However, such religious opinion may change, especially if the future generations of cryptocurrencies have safeguards in place in mining and to counter against price fluctuations and money laundering.

Meanwhile, in July 2020, the Shariah Advisory Council of Securities Commission Malaysia has resolved that it is permissible to invest and trade in digital currencies and tokens on registered digital asset exchanges[17]. Here, digital currency is generally recognised as mal from Shariah perspective.

Nevertheless, despite the various views of scholars, we are aware that in today ecosystem, computer science has become the tip of innovation, and many young tech Muslim entrepreneurs are discovering fintech solutions (e;g Islamic crowdfunding). Cryptocurrency is part of that alternative, and it is generally accepted by the international community, for its purest form of decentralisation. However, this is still debatable among majority scholars, an in-depth examination before a ruling becomes definitive (*qat'i*) among religious authorities around the world; thus, expedite implementation to the end-users. The issue of religious permissibility form a capstone on top of this issue related to digital currencies, and progress in this issue is critical to the Muslim communities, as we now have the opportunity to initiate new economic model for them. It could dictate development in Islamic funds, financial institutions, humanitarian organisations, their directions, of whom the principles of Islamic law are heavily

[16] Faraz (2018), The Shariah Factor In Cryptocurrencies And Tokens, Shariyah Review Bureau, April 2018
[17] The 233rd and 234th Shariah Advisory Council Of The Securities Commission Malaysia Meetings (29 June 2020 and 20 July 2020), https://www.sc.com.my/development/islamic-capital-market/resolutions-of-the-sc-shariah-advisory-council, accessed 1 August 2020.

influenced. A quick resolution thus makes the noble mind to flourish in the current economic landscape.

Finally, there is also need to design out models that are not devoid of the Maqasid al-Shari'ah, Sharia-compliant regulatory, Sharia guidelines and policies, and a contemporary Sharia supervisory body to oversee discoveries related to fintech problems and solutions. This is to avoid any element of *gharar* in the establishment of the receiver and perhaps, the beneficiaries.

Conclusion

We cannot stop cryptocurrency from becoming the mainstream currency one day as we see emergence of more cryptocurrency exchanges and regulators extending its oversight, globally. Just like paper money, cryptocurrency can also evolve to have derivatives such as futures contracts and options. We hope that the market forces enable a broad circulation so people can easily access the digital currency to continue fulfilling their basic necessities. The negative externalities of virtual currencies, and due to the presence uncertainties smouldering the Islamic economy, have made us to purport *Sadd al-dharā'i'*, in which we warn the community from diving instantly into cryptocurrencies. Until the economic system effectively replaces the current widely circulated means of exchanges (i.e. the new cashless global monetary system), this digital currency becomes the subject to be scrutinised and conferred by authorities[18].

More case studies evidence needed to advance an economic system that benefits all, and this requires a consensus at higher bodies such as the Islamic Fiqh Academy. So far we have presented opinions from a plethora of reviewed literature. We are adamant with its potentials in future. At the same time such financial system also comes with challenges, especially from the Shariah perspectives.

The world continues to witness major disruptive events now, and in the next few years to come, the trend of digital technology will get better. In Islam, the most important thing is to remain receptive to the evolution of society, to protect generations from the negative externalities, and imbue good values in society. Adding to it is to safeguard the daily *fard* prayers and earning income only through halal means as part of one's obligations to hold on to the *deen* to adapt in society with much disruptive financial technologies.

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[18] For example, it is possible for the creation of a unified cryptocurrency for Muslim countries in OIC as one way to confront the dominance of the US as long as there is ability to support the real underlying economic activities of the Islamic global ecosystem and avoid outright monetary speculation.