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Cryptocurrencies: A Critical Analysis from the perspective of Islamic Law

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Abstract

Money has undergone numerous form changes throughout history, and as a replacement for the current system, it has started to take on a digital form. The newest kind of money is a cryptocurrency, which was created decentralized from any central authority. The range of applications for cryptocurrency is expanding daily. One of the most widely used cryptocurrencies is bitcoin, which was launched in 2009, ruled the cryptocurrency market, and caught the attention of the general public with its quick price increase. Early in 2018, the cryptocurrency market was worth more than \$800 billion. The majority of cryptocurrency users seek to benefit from rising cryptocurrency values. These actions, however, do not adhere to the principles of cryptocurrencies. In terms of Islamic law, cryptocurrencies also present issues with legitimacy for users who are Muslims (Fiqh). Some Islamic scholars believe that cryptocurrencies are halal, notwithstanding the claims of many religious organizations and Islamic experts that they are haram. Descriptive analysis and content analysis are used in this paper. The findings of this study suggest that using Bitcoin and other cryptocurrencies are forbidden in Islam. Islam prohibits consciously trying to make money off the difference between buying and selling currencies, as this is considered riba. Since it incorporates

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components of maisir (gambling). Our study uses current literature and fatwas to conduct a multidimensional analysis of the illegitimacy of cryptocurrencies in terms of Fiqh.

Keywords

Digital money, cryptocurrency, Islamic Law, Fiqh.

Introduction

The growth of cryptocurrencies is pretty impressive; by 2017, 5632 different market sectors had at least 1148 different types of cryptocurrencies (Marjan, 2017). Given the growing public demand for cryptocurrencies, the amount is predicted to climb further. In January 2009, Satoshi Nakamoto developed the Genesis Block of the newly born system, Bitcoin, making that day momentous for the cryptocurrency industry (Wijaya and Darmawan, 2017). Bitcoin served as the catalyst for the creation of distributed ledger technology, a new field of applied cryptography (DLT).

Information can be exchanged among numerous parties without the need for reliable central parties. Token ownership verification can be carried out utilizing cryptographic methods along with communal agreements or systems for consensus methods. Beginning with a straightforward Bitcoin transaction, the cryptocurrency industry developed as new ideas were put forth by the community, who embraced the development of an open payment system that made use of the internet as a transaction medium.

The advent of cryptocurrencies has sparked a great deal of discussion, many of which either affirm or refute their existence. A few nations have officially banned cryptocurrencies like Bitcoin, but many more do not. Additionally, several nations have not expressed an opinion on the cryptocurrency itself.

So how is this cryptocurrency perceived from an Islamic viewpoint? Where does cryptocurrency fit into the Islamic banking system? The characteristics of cryptocurrencies and their place in the Islamic economic system, particularly Bitcoin, will be covered in this article. This study employs library research techniques, and its data come from secondary sources including books, journals, and fiqh regulations that deal with cryptocurrencies. Descriptive analysis and content analysis are used in this paper.

Methodology

This paper is based on library research. The research was conducted using a qualitative methodology. Sekaran and Bougie (2013) claim that qualitative data are just data in the form of words. As a result, the secondary data are gathered from sources including websites, academic journals, books, and magazines.

Cryptocurrencies

There are more than 7000 cryptocurrencies available (as of September 2020). Although the majority of them make use of the blockchain system, there are certain variances between them. In their generic classifications, Hårdle et al. (2020) provide examples:

- Peer to Peer Money Transaction Mechanism (Bitcoin)
- Distributed Computation Tokens (Ethereum, EOS and Tezos)
- Utility Tokens (Golem, Sia and FileCoin)
- Security Tokens - Fungible Tokens
- Non-Fungible Tokens (Dharma)
- Stable coins (Tether, Circle) - Others

The bitcoin mechanism allows for interparty transactions. As an alternative to the global money transmission system SWIFT, ripple was created. Smart contracts can be established and customized by users in Ethereum and several other cryptocurrencies. Compared to Bitcoin, certain cryptocurrencies are more private. These cryptocurrencies, such as Monero, Zcash, and Dash, place a higher value on anonymity. Tether is an example of a stable coin with a \$1 value.

The most well-known cryptocurrency, Bitcoin, has gained popularity. The first cryptocurrency based on the peer-to-peer payment method was Bitcoin (BTC or XBT). Cryptography is the foundation of the Bitcoin operating system. It was developed in 2009 to enable peer-to-peer electronic money transfers. Satoshi Nakamoto is the guy who designed it. The Bitcoin whitepaper, which can be thought of as the system's manifesto, was released online in November 2008 (Nakamoto, 2009). This statement offers crucial details regarding a decentralized network that incorporates a peer-to-peer transaction technology. When the first

block was mined in January 2009, the Bitcoin network was established. The genesis block was also created by Satoshi Nakamoto, and the system was then launched to execute the code contained inside. Additionally, he received 50 Bitcoins for creating this initial block (Crosby et al., 2016).

In his article, Satoshi Nakamoto refers to Bitcoin as an electronic payment system (Nakamoto, 2009, p. 1). As a replacement for the fiat money system, Bitcoin can be thought of as a new digital currency system. Since Bitcoin can be divided into eight digits, 0.00000001 Bitcoin can be sent. A Satoshi is the smallest unit. In other words, according to Giungato et al. (2017), 1 BTC is equal to 100,000,000 Satoshi. Following the collapse of the financial markets, Bitcoin appeared and was promoted as an alternative model to the current financial system (Dilek, 2018). The ability to be divided, transferred, and stored as value are all features of traditional money that bitcoin also shares. With Bitcoin, users can transfer any amount of money directly between their private wallets without the involvement of a middleman. It offers a quick and affordable substitute for traditional money transfers (Dilek, 2018). When applying blockchain technology to real markets, scalability is a major issue, nevertheless (Xie et al., 2019). SegWit and Lightning Network aim to address these issues by increasing processing speed and improving block size (Vujičić et al., 2018).

The recording of transactions that are contained in blocks is maintained by mining operations. This action was the result of using powerful computing to solve an equation. Miners are the individuals who carry out this operation using various pieces of equipment. For their labor, miners are guaranteed two different forms of recompense. They will get a set amount of bitcoin if they discover the right hash. Additionally, they get paid commissions for ensuring that transactions are logged in blocks (Dimitri, 2017). At the start of the system, the block reward was 50 Bitcoins; in 2018, the payout was reduced to 12.5. 21,000,000 Bitcoins will be issued by the Bitcoin system in total, and this process will be finished in 2140 (Meynkhart, 2019).

Methods of cryptocurrencies companies

In today's world, what are the different currencies that are in vogue, there are different methods of different companies.

One coin

One coin has two methods on which There are two ways to benefit, one way is that whoever makes a member of this company from himself, he will take from one hundred Euros, then he

will buy a package or bundle for himself up to twenty-eight thousand euros (the company term them educational packages) so with this package, the company gives tokens to the said person and their number increases and decreases based on the packages, then after three months, the company distributes these tokens one by two, but with the increase, it has the option of this number again. If he wants to convert his token into a digital currency, he can do so for free.

The second method is "Compensation plan" which is optional. If someone wants to benefit, then he should adopt this method. There are three cases in this method.

The first is the case of "Direct sale", that is, the person who gets the membership, then other people tell about the company, and then that person becomes a member of the company under the account of the applicant, so this new person, no matter how much capital he has The company spends 10% of that 10% will be the bringing person because he brought this second person, the second case is Network Bonus (Network Bonus) in this case, the bringing person around, however many people come, If it is through him, or if it is indirect, ten percent of the total capital of the group will be given to this first person by the company. They do it once, and the third case is Matching Bonus. In this case, if someone brings this person for the first time, then they call it first generation. The highest-ranking person (the aunt who brought the first generation) is called the second generation. This amount reaches the fourth generation. The person who brings it first is the one who brings it. This method also reaches up to four generations once a week, no more than four.

Fitwa and Hadith about the illegitimacy of crypto currency in Islam

This Shariah ruling is that it is not permissible to use this method because it does not come under the nominal price, it is not a price for the government, nor is the price for all the people determined, only the price of the token is from one hundred Euros to twenty-eight thousand. It is not permissible to regulate from hundred to twenty-eight thousands Euros. Even if this digital currency is given a legal form, the exchange of this and other digital currencies is Baya – ul-sarf), in Baya – ul – Sarf) cease of money is mandatory in the time of deal but there is no gaining money at the moment. Instead, the company doubles each token one by two after three months, so this is also a form of debt in the sale of money, which is illegal; the reason for that is:

Shami fatwas: “The money is proven by the people’s financing sufficiently or some of them, and the taqweem is established by it and by the permissibility of benefiting from it according to Sharia.” (Tom 4, P 506, Ich Im Saeed).

Badaa Al-Sanaa:

“And as for the strings (of them) to take the two exchanges before parting, for his saying, ‘Allah’s blessings and peace be upon him in the famous hadith, and gold for gold for example, hand to hand, and silver for silver, for example. (tom 5, p 215, Fasle fee sharayat-ul-sarf).

The second method, which consists of three forms, is basically under commission, and commission is not an independent trade in Islam, because in this commission, the physical action that is part of trade is not there, but still the scholars legitimized for the people need. They have allowed it conditionally, so here also the purpose of this company is to invest the capital of many people in this company and to increase the number of people, it gives commission to other people, so to invest capital in this company and to benefit from it, is not permissible, because it is not permissible to buy coins and tokens of this company, then the money is made as a worker or member of this company. The reason is below:

Shami fatwas: “Profit is due with money, work, or security.” (Shami fatwas, Kitab al-Mudaraba, vol. 5, p. 464), i: Isha im Saeed.

And in it also: “He was asked about Muhammad bin Salim about the wages of the broker: He said: I hope that it is okay, even if it was originally corrupt due to many dealings, and most of this is not permissible. (Shami fatwas, a requirement in the wages of ad-Dalal, vol: 6, p: 63, i: Isha, im Saeed) Al-Shabah and Al-Nazaer: “What is permitted due to necessity is estimated according to its value.” (Al-Ashbah and Al-Naza’ir, the fifth rule: the harm is removed, p. 87, old) and in it also: “And he declared it in the fatwas of Qari Al-Hadaye, then he said: And if the contract is spoiled in part, it is spoiled in all.”

Explanation of the building guidance:

The corruption of the contract in some only affects the rest, if the spoiler is a comparison.” (Al-Bannai Sharh Al-Haditi, vol: 8, p.: 177).

Shami fatwas “The chapter on usury is an absolute rhetoric, and legally (preference), and if it is a judgment, it includes usury, and bad sales, all of them are from usury, so it is obligatory to

repay the interest in the original, and even if it exists, he will return his guarantee, because he owns by taking possession of a cannabis and sea (without consideration) ... conditional on this credit to one of the contracting parties. Shami Fatwas, Volume: 5, P:148, 149, i: Ich Im Saeed)

When any currency is used, it is not called property in itself, but it is only a piece of paper by which we can buy property, if there is any nominal value in this paper, it is based on two reasons, one reason is that behind these papers are the economic affairs of the country, this is the reason why the economic development and decline of the country occurs.

And with the decline (depreciation) the value of the currency is also affected, that is, based on the economy of the country, when the price of the currency rises and when it falls again, that is, the government of that country gives value to these papers, so the people also value them. The second reason is that every country is the guarantor of its currency for its people. This is the reason that when a country stops its currency, then it is only a piece of paper and has no status.

Now the question is that what is behind the digital currency is that the price of the digital currency is determined based on it and the rise and fall is based on it? And what is behind the digital currency? Does the guarantor have control in his hand and power or not? Or is it a reliable thing or just hypothetical?

Now, this digital currency has not been legalized by the government of the country, nor has it become popular among all people, so its value is not valid.

On the basis of various information related to digital currency, it is known that this digital currency is only a hypothetical thing, it does not exist outside, in fact, it is also gambling and interest on the Internet with Forex trading money.

Business is a form in which there is really no sale, and there are no conditions for the license of sale in this business.

In short, bitcoin, cryptocurrency or any digital currency is just a hypothetical currency, not a real currency, but no digital currency has the original attributes of a currency, and it is a scam in the digital currency business and interest business. It is clear that on this basis, it is not permissible to buy and sell cryptocurrency and any digital currency, so Muslims should avoid this business.

Almighty Allah has permitted selling and forbidden usury (Al-Baqarah: 275).

And the Messenger of God, peace be upon him, said: God has forbidden to my nation alcohol and gambling (Al-Musnad of Imam Ahmad⁴, 2:351, Hadith No.: 6511).

(وَلَا تَأْكُلُوا أَمْوَالَكُمْ بَيْنَكُمْ بِالْبَاطِلِ) And do not devour your wealth among yourselves unjustly (that is, by forbidden, meaning usury, gambling, usurpation and theft) (Maalim al-Tanzil 2: 50), because gambling is from the moon, which increases at times and decreases at other times. Because every one of the gamblers who may take his money to his owner, and it is permissible to benefit from his owner's money, and it is forbidden by text. (Redd Al-Muhtar, Book of Prohibition and Permissibility, Chapter on Istibra, Chapter on Selling, 9: 577, i: Zakaria Deoband Library).

Islamic money and the function of the "store of value"

Is there a concept known as "Islamic money"? When we refer to something as Islamic, we are referring to its ability to advance the *maqasid al shariah*. We define something as being unislamic if it leads to a departure from the attainment of the *maqasid al shariah*. In order to achieve the *maqasid al shariah*, Islamic economics, Islamic banking, and Islamic finance, among other things, must be used. Therefore, if something can aid society in achieving some shariah-related goals, it is Islamic. As a result, we may refer to something as Islamic money and payment system if it can help us achieve the *maqasid al-shariah*, and vice versa.

The store of value function is essential in this regard since the *maqasid al shariah*, in particular the role of protecting wealth (*hafiz al-mal*), would be in jeopardy if money were to fail to hold its worth reasonably well over time. People will eventually lose their financial fortune if they store money for the future but the value of money continues to decline over time. This goes against *Maqasid Al-Shariah*. Therefore, it is crucial that an Islamic currency performs well as a store of wealth. In Islamic economics and finance, the function of a store of value is in fact a litmus test for the legitimacy of a medium of exchange (Abdullah, 2016).

Creating a system for Islamic money and payments

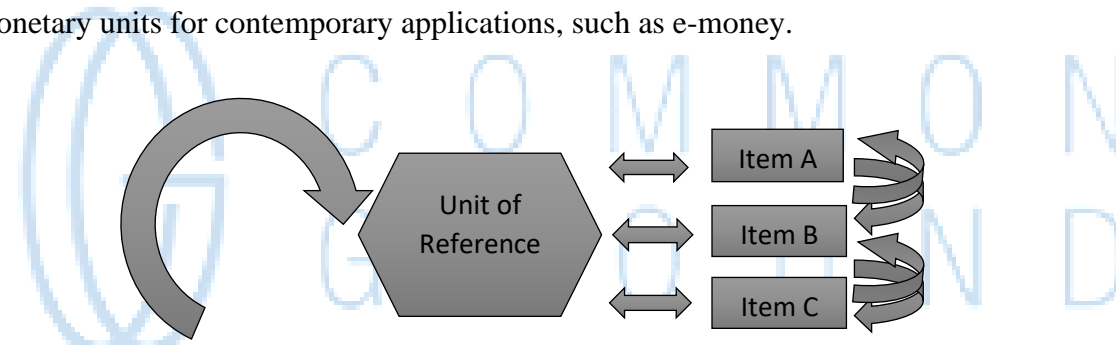
From the discussion above, it is clear that selecting the reference material—i.e., the thing to use as a unit of measurement for value in socioeconomic interactions—is the most important

step in developing an Islamic money and payment system. The requirement that the reference material be authentic is both necessary and inescapable⁴.

This referencing content will unavoidably need to be a commodity or a standardized service⁵.

To ensure that seignior age and all of its socioeconomic bad repercussions are eliminated and the *maqasid al-shariah* is not threatened, the reference material is of utmost importance. In other words, this reference material and "monetary fairness" in the economy are directly related.

Following the selection of the reference material, specific amounts of it are designated as units of currency. For instance, in classical Islamic societies, gold and silver were chosen as the reference materials, and 4.25 grams of pure gold were used as dinars and 3 grams of silver were used as dirhams, or as reference units. Then, these standardized coins of monetary units are used as currency throughout society. These amounts can also be used as the conventional monetary units for contemporary applications, such as e-money.



The referenced material must meet the requirements for payment and may be:

- a good or
- a standardized service.

Diagram 1: The use of money as a medium of exchange (a commodity) and as a unit of measurement (Information)⁶.

⁴ The reference material must have its own intrinsic value in the sense that utility can be potentially derived from it, either in the form of non-destructible utility as in gold and silver since their use is more of ornamental, or destructible utility as in commodities like date, wheat, air-time etc. Since these are destroyed in the process of consumptions.

⁵ like cellphone airtime, like with Kenya's M-Pesa service.

⁶ K.M., and Mubasheera, Hamida. (2015). Revisiting the Concept of Money, Profit and Interest from the perspective of Value and Diminishing Marginal Utility, *Journal of Islamic Monetary Economics and Finance*, 1(1), pp.25-53

The Reference Unit, such as a gold dinar, is being utilized as a medium of exchange when it is used to purchase item A. In this situation, money is being exchanged for another genuine good as a commodity. Because both of the exchanged products have intrinsic value, it functions similarly to a barter exchange and is a fair transaction.

A measure of value or unit of account is employed when a reference unit, such as a gold dinar, is used to price items, such as item A and item B, each of which is equal to one dinar. A and B can therefore be traded straight without the use of any gold dinar. In this case, cash is information.

The concept of Riba as it was derived and explained by the classical scholars is illustrated by Nyazee (2008)⁷. The learned scholar came to the following conclusion: In reality, all transactions involving paper money (fiat money) will be void if the stringent legal position of Islamic law is applied. Nyazee, Imran K.(2008) *The Concept of Riba and Islamic Banking Advanced Legal Studies Institute, p 129*.

According to Nyazee (2008)'s analysis, four different payment options are acceptable in Islamic transactions. In the following Diagram 2, these are shown:



Diagram 2: Four Different Permitted Payment Methods

The first legal transaction in Diagram 2 is rather simple. A gold dinar, for instance, is a reference unit constructed of reference material that may be used to exchange for products and services. This is a straightforward, fair exchange. One has a redeemable note as money in the second scenario. The representational currency note can be redeemed for other items from the issuer, like a gold dinar. The note merely makes transactions easier by being simple to move

⁷ Nyazee, Imran K. (2008). *The concept of Riba and Islamic Banking. Advanced Legal Studies Institute*.

around and being practically identical to the first transaction. The third scenario involves the purchase of goods and services on credit after issuing an IOU for a predetermined time frame, such as one month.

The IOU can be used as currency in the community, and whoever has it at the end of the month can exchange it for anything else—say, a gold dinar—by returning it to the IOU's issuer. In this instance, however, it is prohibited to use an IOU that was issued as collateral for a financial debt to be used as currency. This is understandable given that, if it were permitted, both the loaned funds and the IOU would function as legal tender, placing the economy at risk of inflation. The fourth and final scenario is when all transactions—debits and credits—among the participants are only recorded in an accounting ledger, but are then regularly netted off and balances among the participants are resolved using the Reference Units, in this case, gold dinars. This netting off and settlement is legal and referred to as muqassah in Islamic law. According to Nyazee, those are the four shariah-permitted financial transactions or payment options that are legal and free of Riba (2008). After discussing the qualities of Islamic money and payment methods, let's examine whether bitcoin possesses these qualities.

ARE THERE GOOD-MONEY CHARACTERISTICS IN BITCOIN?

Following on from the debate above, this section examines bitcoin from the standpoint of Islamic money and payment systems. First, does bitcoin meet the seven standards for sound money? Table 1 below provides an overview of this:

Table1.
Does Bitcoin Meet the Good Money Requirements?

	Criteria	Remarks	
1	Confirmed	It has no intrinsic value	✗
2	Partible	It is easily partible	✓
3	Homogenous	Having electronic characteristics is effectively homogenous	✓
4	Durable	Data is extremely durable since it is kept as electronic bytes in a distributed ledger.	✓
5	Mobile	It is very movable because it is electronic.	✓

6	Rare	Bitcoin is only ever issued through the mining process, making it extremely uncommon.	✓
7	Stable Value	The price of bitcoin has been wildly swinging recently, showing significant volatility	✗
8	Tangible	Bitcoin and other cryptocurrencies are not tangible	✗

Considering table above bitcoin does not fulfill two criteria of Islamic money. At first it does not have intrinsic value and second the price of bitcoin is highly volatile. Moreover, Bitcoin and other cryptocurrencies are not tangible. Taking into account these three unmatched criteria, bitcoin is not legal in Islamic sharia deals and it cannot be base of deals in Islam.

Conclusion

We claim the following about bitcoin and similar cryptocurrencies based on the discussion and reasoning above:

Due to their detrimental effects on maqasid al-shariah, according to the Hadith and Fitwa described in the article as well as other scholars' points of view, all types of money without an intrinsic worth should be rejected. According to some (e.g., Lietaer (2001), Meera & Larbani (2006 and 2009), the seigniorage of fiat money is the cause of significant social, economic, political, and environmental problems in today's society. Money having intrinsic worth, on the other hand, is compatible with maqasid al-shariah and promotes socioeconomic justice while money without intrinsic value has an element of injustice ingrained in it (adle.).

Therefore, in our opinion, this funding will contribute to socioeconomic issues. However, the majority of shariah experts will accept them, while those who insist on their legitimacy or intrinsic value will reject them⁸

However, *As-sar* and *Riba* regulations would be in effect if the people acknowledged it as money. However, we believe that the public in Islamic society needs to be educated to refuse such money. Since Bitcoin lacks a Reference Material, it is certain to have a significant socioeconomic impact.

⁸ Recently the Grand Mufti of Egypt declared that bitcoin is banned in Islam

On the other hand, any kind of money that has genuine worth would support socioeconomic fairness and should be backed by the general populace and the government.

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