Cryptocurrency as a Fin Tech Instrument and Islamic Finance: The GCC Perspective

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ABSTRACT

The study aims to investigate cryptocurrency in Islamic Finance in general and particularly within the Gulf Cooperation Council (GCC). Therefore, we conducted an in-depth interview with 12 Islamic scholars and finance specialists from different Gulf countries (i.e. Bahrain, Saudi Arabia, UAE, Kuwait, and Oman). In addition, the study used secondary data to explore the Islamic view (Sharia) as stated and announced by the main Fatwa councils in the world such as: the Board of Senior Scientists, International Union for Muslims Scholars and Al-azhar. The findings reveal that there is no conclusive answer of whether cryptocurrency is allowed in Islamic law (halal) or prohibited (haram), and for which the swing will in general be supportive of its blockchain fundamental innovation permissibility in Islam. Further, cryptocurrency needs to defeat negative suppositions encompassed by the abundance unpredictability and use in fraud and illegal actions. We conclude that cryptocurrency should be managed and carefully supervised by both financial law, and Sharia law in order to be passable by Muslims worldwide and particularly in the Gulf countries. The findings also indicate that there is no specific form of money in the Islamic economic system, and this is not a justification for the abandonment of the two-mineral system.

Keywords: Cryptocurrency, Blockchain, Bitcoin, Fin Tech, Islamic Finance, GCC.

JEL Classification: G4

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INTRODUCTION

Digital transformation identified as one of the major trends changing business and society in the short and long-term future (Abdeldayem & Aldulaimi, 2020; Tihinen et al., 2016). Digital age making life shifting to virtual environment and live within a great cloud of data and removing the traditional physical barriers. Muslim societies as a major part (almost one third) of this world, face a stream of financial innovations coming from other societies, and witnessing a flood of ideas that they need to adapt them in a legitimate purposes that the Sharia came to preserve.

Cryptocurrencies are digital assets designed to act as a medium of exchange, use cryptography to secure their transactions, control the creation of additional units, and verify the transfer of assets and values in a non-copy format. Most of which are based on a technology called the “Blockchain” which ensures transparency, speed, and confidence in transfer and it is produced by these currencies, and a community known as prospectors guarantees its continuity (Vejacka, 2017; Abdeldayem & Sadeek, 2018).

Furthermore, administrative and technological advancements are changing the idea of financial markets, administrations, and organizations in manners totally unforeseen before the 2008 global financial crisis (GFC) (Arner et al., 2016; Buckley & Arner, 2011). Financial technology, or Fin Tech, alludes to the utilization of innovation to convey money related arrangements. Cryptocurrencies such as Bitcoin, Ethereum (ETH), Litecoin (LTC), Ripple (XRP), Monero (XMR) and Dash are direct consequences of the Fin Tech.

Cryptocurrency is without a doubt showing potential for pertinence in the worldwide exchange, venture, and other agreement repayments in certain years to come. The capability of the blockchain innovation is sensational with ongoing evaluations recommending it will be worth more than $20 trillion in only two years, which is more than the entire American economy. There is around 7.7 billion individuals living today and over 1.8 billion Muslims (almost 35% of the total populace). Therefore, the advancing blockchain innovation and cryptocurrency might be impacted by Muslims' populace development (Abdeldayem & Aldulaimi, 2020; Bailis & Song, 2017, Coindesk. 2015a, Coindesk, 2015b, Blatchford, 2015; Abdeldayem & Aldulaimi, 2019).

The purpose of resorting to such currencies was that they were decentralized, so that they could be controlled by the people themselves, achieved a great deal of privacy and confidentiality, and could not be traced, because they did not rely on official institutions and intermediary financial institutions such as banks. The most important requirement of the law to consider anything currency, is: the state adoption of it. I.e. to be state-issued, which is expressed in the case of jurists: to make money, or to multiply money, this is indicated as follows: the adoption of financial currencies in the Sharia is a state function, since only the state is entitled to issue money, in accordance with its laws and regulations, and this is expressly found in the texts of the jurists, whether for mineral money - gold dinars or silver dirhams. The total cryptocurrency market capitalization has significantly risen more than three fold since 2016; exceeding $25 billion in 2019 (see Figure 1).

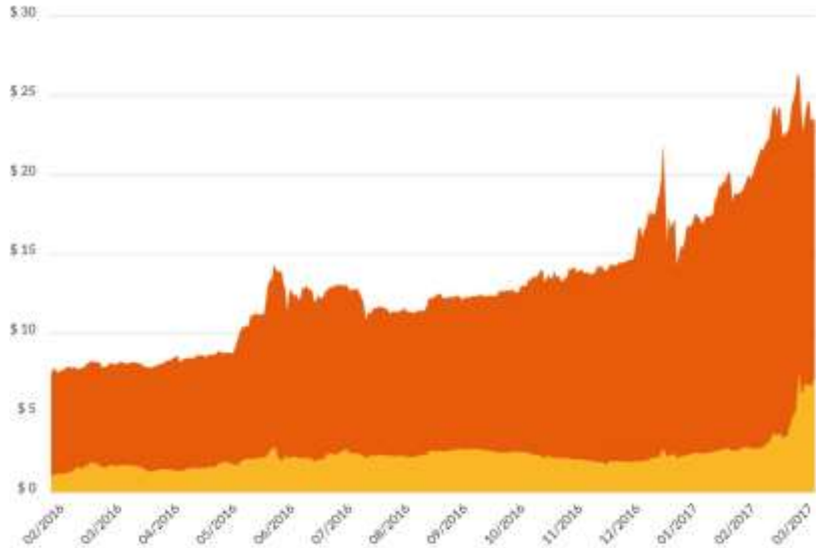

Figure 1: Cryptocurrency market capitalization

Bitcoin

Other cryptocurrencies

Source: Rauchs and Hileman (2017)

These currencies have achieved general acceptance among interested parties around the world, with a total market value of nearly half a trillion dollars, which is not subject to regulation or central bank control. Hence, cryptocurrency cannot be considered as a legal money. Some people call it alternative cash or supplementary cash and the value of this currency is not based on tangible assets or precious metals. Most of the contemporary activity of traders falls within the scope of speculation to achieve quick profits as a result of the disturbance of its value and its general volatility towards the rise during the past five years, especially after entering the financial derivative markets (Cheah & Fry, 2015).

This research effort is attempting to collect and analyze the views of the legitimacy of dealing in virtual currencies at the individual, institutional and international levels from the Islamic perspective. It aims also to discuss the legal and economic guidance to deal with these assets in a manner that fulfills the purposes of Islamic rules in addition to the public and private economic interest of Muslims.

The importance of this research stems from the fact that this issue is considered as a contemporary one, as it closely resembles the coming of credit paper money that is not covered with gold and silver, which acquires its authority from confidence in its source of sovereign power in every country. The prevalence of dealing in virtual currencies encrypted globally with a total value of $ 443 billion in 2017, and their growth in the same year increased by more than 2500% in some currencies. Also, the promising economy that expecting the importance of these currencies in the possibility of their solutions as a future cash alternative (see Abdeldayem & El-Sherbiney, 2018; Abdeldayem & Darwish, 2019; Shaker & Abdeldayem, 2018).

The rest of this article is organized as follows: Section (2) introduces the literature review. The research methodology, data sources, sample and procedure and techniques of analysis are presented in section (3). Section (4) explains the empirical analysis and test results. Section (5) provides summary and concluding remarks.

LITERATURE REVIEW

Following 10 years of cryptocurrency's presence, the subject of whether cryptocurrency can in truth be agreeable with Sharia law keeps on being bantered in the business. To see where we are at with the discussion today, we solicited an assortment from specialists in Sharia law and Islamic finance to return to the inquiry. The haram versus halal crypto banter has been continuous since Bitcoin's underlying flood in prevalence. Google looks for the expression "Bitcoin halal" crested in December 2017, when the main digital money's value hit record highs of around $20,000 per coin, while "Bitcoin haram" was questioned most in January 2018. It is likewise, noticed that the pervasive foreign exchange risk coming about because of the hidden exercises (as opposed to the money itself) is liberated from speculation (Gharar). It is suggested that partners in the Islamic Finance world ought not to be uninvolved but to be proactive in beginning procedures to create specialized notes, benchmarks, and operational rules to participate in the inescapable movement to digital currencies.

The advancement of Fin Tech has unfurled in three phases. The principal organize we portray as Fin Tech 1.0 (1866–1967), a period that stretches from the laying of the transoceanic broadcast link to the advancement of the worldwide message system and which catches long-standing associations among innovation and finance (Arner et al., 2017). The subsequent stage, Fin Tech 2.0 (1967–2008), incorporates the pre-GFC period supported by the digitization of customary money related administrations, starting with the principal ATM and coming full circle in e banking. Since the GFC, the rate of mechanical advancement and the multiplication of new businesses and IT firms giving budgetary administrations have portrayed the period of Fin Tech 3.0, (2007-2008) (Arner et al., 2017, Hochstein, 2015, Arner et al., 2016; Wang, 2015).

The fast development of Fin Tech requests a comparative advancement of Reg. Tech (Institute of International Finance, 2016). Reg. Tech, a constriction of the terms administrative and innovation, depicts the utilization of innovation, especially information technology (IT), with regards to administrative checking, revealing, and compliance (Chazot, 2015; Wang, 2015). Therefore, cryptocurrencies are direct consequences of Fin Tech 3.0.

In 2018, the following cryptocurrencies are the largest after bitcoin in terms of market capitalisation: Ethereum (ETH), Dash, Monero (XMR), Ripple (XRP), and Litecoin (LTC). Figure 2 shows that market prices of DASH, Monero (XMR) and Ether (ETH) have significantly grown since 2016. Further, Table 1 presents the average daily number of transactions for largest cryptocurrencies (Rauchs & Hileman, 2017; Abdeldayem & Aldulaimi, 2020; Bailis & Song, 2017; Coindesk, 2015a; and Coindesk, 2015b, Blatchford, 2015).

Figure 2: Market prices of the largest Cryptocurrencies
Source: Rauchs and Hileman (2017)

Table 1: Average daily no. of transactions for largest cryptocurrencies

	Bitcoin	**Ethereum**	**DASH**	**Ripple**	**MONERO (XMR)**	**LITECOIN (LTC)**
Q1 2016	201,595	20,242	1,582	N/A	579	4,453
Q2 2016	221,018	40,895	1,184	N/A	435	5,520
Q3 2016	219,624	1,549	45,109	N/A	1,045	3,432
Q4 2016	261,710	42,908	1,238	N/A	1,598	3,455
2017	286,419	47,792	1,800	N/A	2,611	3,244

Source: Rauchs and Hileman (2017)

It can be seen from Table 1 that Bitcoin is the largest cryptocurrency in terms of market capitalization and average daily number of transactions over the last three years followed by ETH, Dash, Ripple, Monero and finally LTC. This view can also be confirmed by looking at the Bitcoin market share volume of major exchanges as well as the average market share of cryptocurrencies displayed in Figures 3 and 4, respectively.

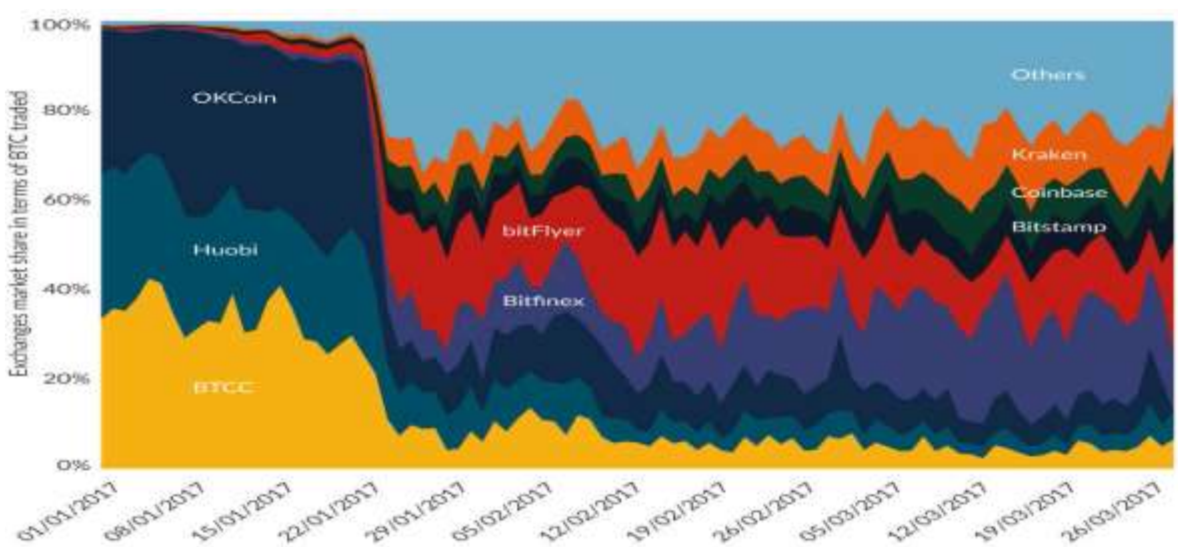

Figure 3: Bitcoin trading volume market share of major exchanges
Source: Rauchs and Hileman (2017)

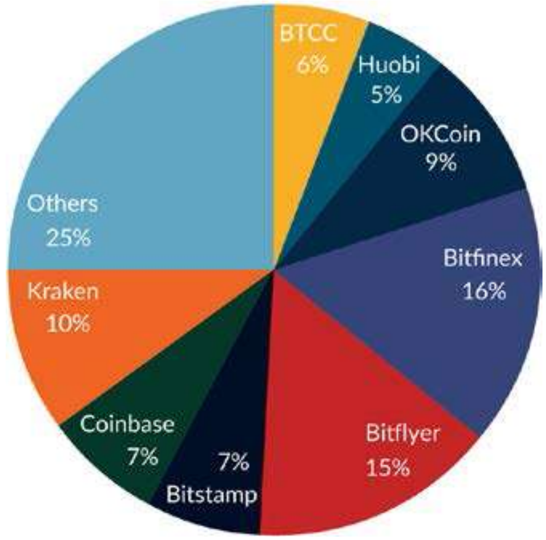

Figure 4: Average market share of Cryptocurrencies
Source: Rauchs and Hileman (2017)

Back in April 2018, an Indonesian Fin Tech startup, discharged a report titled "Is Bitcoin Halal or Haram: A Sharia Analysis," composed by the organization's inward Sharia counselor, inferring that Bitcoin is commonly passable under Sharia law. A comparable thought can be found in "The Sharia Factor in Cryptocurrencies and Tokens," provided by the Sharia Review Bureau, authorized by the Central Bank of Bahrain, which expressed that advanced monetary forms can be Sharia-consistent "whenever organized accurately." In the interim, back in January 2018, Egypt's Grand Mufti “Shawki Allam”, nation's top Muslim Minister, required a prohibition on Bitcoin, saying the advanced cash is taboo by Islam.

In the influx of innovative headway, it is a developing time of Fin Tech in no special case of cryptographic money as among the quickest developing and appropriately refreshing budgetary sections, which vibrates the worldwide economy essentially. As far back as 2013, various advanced monetary standards have been gliding in the internet, pulling in the worldwide market in augmenting the venture open door for all by a shrewd equation with less manage, least financial problem and just about zero cost, where Bitcoin so far has verified its driving stage.

Furthermore, the “Council of the Islamic Jurisprudence” has examined the research submitted to it on the issue of paper currency and its rulings from the Sharia point of view. After discussion and deliberation among its members, the council decided that since the value in the jurists is not limited to gold and silver, even if their metal is the origin, and since the paper currency has become a price. Further, the council decided that the paper currency is a stand-alone cash, which has the rule of two coins of gold and silver. Hence, zakat is required on them, and usury is carried out with quality, virtue and forgetfulness, as is done in the currency completely covered by gold and silver, as the value in the paper currency is a measure on them, and so the paper currency takes the provisions of the money in all the obligations imposed by Sharia in it (Abdeldayem & Aldulaimi, 2018).

Moreover, the “Council of Senior Scholars” decides in its majority: that paper cash should be considered as a stand-alone cash, such as the establishment of cash in gold, silver, and other prices. In addition, there are races multiplying by multiple issuers, meaning: that the Saudi banknote is a gender, and that American banknotes are a gender, and so every banknote is a separate genre in its own right, and that the following legal provisions follow.

METHODOLOGY

This is a qualitative study using an inductive descriptive approach to achieve the objectives of this study (Allmark et al., 2009). The study then answers key questions through a logical investigation based on deductive reasoning as a method to derive the legitimacy of public circulation in it, and to explain some of the legal provisions related to cryptocurrency. We seek in this research to logically answer sequential questions that represent the theoretical framework for the research in order to come up with a correct legal guidance related to the rule of dealing encrypted virtual currencies based on the available technical and economic data. Hence, our research questions in the legal field begin with macro issues and then enter into the details related to the encrypted virtual currencies, to form a more accurate picture about the mechanism of arriving at the legitimate ruling, which are as follows:

- What is the Islamic finance view on cryptocurrency?
- Can cryptocurrency be considered legal money, and approved as a general medium of exchange from the Islamic finance perspective?

Therefore, we conducted an in-depth interview with 12 Islamic scholars and finance specialists from different Gulf countries (i.e. Bahrain, Saudi Arabia, UAE, Kuwait, and Oman) to explore the views regarding the blockchain and cryptocurrency in the GCC. In addition, the study used secondary data to explore the Islamic view (Sharia) as stated and announced by the main Fatwa councils in the world such as: the Board of Senior scientists (Saudi Arabia), International Union for Muslims Scholars and Al-azhar.

ANALYSIS AND EMPIRICAL FINDINGS

As mentioned earlier, this is a qualitative study using an inductive descriptive approach to achieve the objectives of this study. The study then answers key questions through a logical investigation based on deductive reasoning as a method to derive the legitimacy of public circulation in it, and to explain some of the legal provisions related to cryptocurrency. Therefore, we conducted an in-depth interview with 12 Islamic scholars and finance specialists from different Gulf countries (i.e. Bahrain, Saudi Arabia, UAE, Kuwait, and Oman) to explore the views regarding the blockchain and cryptocurrency in the GCC. In this respect, during the interview stage of this study, some Islamic scholars, from Bahrain, highlighted their experience by stating:

"There is disarray obfuscating the brain of in the case of existing cryptographic forms of money are legitimate under the Sharia standards as well as inside the perfect moral standard. There are blended perspectives among Muslims and Islamic researchers, with some dismissing the thought on the grounds of garar (vulnerability) or slash (misappropriation). Some value it on the ground of darurah (need) or tahsiniyah (success), while some stay quiet and are anticipating seeing one with Sharia endorsements."

The above sentiment was perhaps expressed because cryptocurrencies differ from traditional currencies in the absence of a central regulator behind them. In addition, transactions in the peer-to-peer network are performed directly among users without an intermediary with encryption. These transactions are verified by network nodes and recorded in a distributed, public address book called a blockchain (see Wang, 2015). Another, Islamic scholars from Kuwait participating in the interview survey also revealed that:

"*To my modest seeing, thoughtfully the cryptographic money is not haram. Or maybe, one will be adjusted and properly refreshing as a road for all to succeed the normal economy from smaller scale to large scale in the worldwide reality by reducing the reliance on an obligation based economy. Notwithstanding, as a general rule, the current wonders of cryptographic forms of money may not be treated as haram"*

Interestingly, a number of Islamic scholars revealed that there are other features that have been learned from Islamic finance. One scholar expressed his view in the following way:

"The Sharia-consistent Islamic money related frameworks – that is, Islamic Banking – were imagined during the 1970s and are increasing more ground in the area, given their capability to draw in an enormous number of customers, since Islam is the religion that is spreading quickest on the planet."

Therefore, it would seem that if we consider cryptocurrency to be cash, the fact of the cash and its function are not realized, the jurists have precisely defined the truth of the cash as a medium of exchange, a standard and a measure of the values of the asset sold and purchased. In addition, a standard for future payments, and it is universally accepted. Hence, the legal judgment is not related to the substance of the cryptocurrency, whether it is iron, paper or an electronic number. The important thing is not the form or substance, but the matter. During the interview survey, a clear majority of the interview survey participants (i.e. 67%) felt otherwise, and typical of their responses is the following comment:

"All in all, Ethereum and different cryptographic forms of money supporting Blockchain improvements do seem to have truly positive conditions outfitted towards Islamic account given their absence of dependence upon obligation, the absence of financial specialist/borrower control and the commonly adjusted benefit and misfortune sharing of the subsidizing procedure of group deals. All the more significantly, Blockchain is an ideal medium to fuse and operationalize Islamic estimations of equity, uniformity, trust and decency into fund which encapsulates the soul of the Sharia".

This is perhaps due to the words of "Imam Malik" here are a rule - in money - that is quite clear: everything - even leather and skins - if the state seams a currency, and includes its circulation among people, gold and silver coins, to assure them of the protection and guarantee of the value of the State; In this case, it is considered a kind of money and takes a golden or silver cash ruling: It has a value in itself, and thus: Some should not be treated with one another as a forgetting, and not be issued in any other kind of money, thus making it clear: The basic requirement - in sharia and the law - for the consideration of something as a currency is: That the State formally adopt it, thereby guaranteeing its value and providing it with the legal protection that enables it to perform its essential function (Aldulaimi, 2016). The majority of Islamic scholars in various Gulf countries have generally amplified a different view as:

"it is clear: cryptocurrency does not meet the conditions in real currencies: It does not promote the currency boom, and it has not been materialized; They cannot rely on a measure of the eight in which they value goods, and they have not been trusted by the public; they have no real value in themselves or beyond"

Therefore, it is highly probable that this currency will fall - when exposed to emergency variables - leading to its damage and loss of value, so: Dealing with this currency includes a greater lurid than of the forbidden gamble, as this results in the loss of the rights of many people, and the offending of their money, and it has been true: One of the first things that man asks about on the day of his resurrection is: "Where he earned him and how he spent it" (Institute of International Finance, 2016). If those who promote it give up, and close their positions, this will lose its value, and lead to its destruction, resulting in the loss of the rights of their respective owners. Third: Other tapes of cash circulation and commodity trading: There are tapes of the validity of transactions in the Sharia - whether trading in cash or trading in goods, the most important of which are the following: - knowledge of both parties of the transaction, and knowledge of the plenipotentiaries: Is this condition true here? Ignorance surrounds Bitcoin in all respects: It relies on the principles of encryption in all its aspects, and its law contains no information about the person or his data; the fact that this is the first time that we have been able to do so is that we are not able to do so. {O those who believe do not eat your money with falcons but trade your objection} [Al Nissaa: 29].

CONCLUDING COMMENTS

The purpose of this study is to investigate cryptocurrency in Islamic Finance in general and particularly within the GCC. Therefore, we conducted an in-depth interview with 12 Islamic scholars and finance specialists from different Gulf countries (i.e. Bahrain, Saudi Arabia, UAE, Kuwait, and Oman). The study raised two questions as follows: (1) what is the Islamic finance view on cryptocurrency?, and (2) can cryptocurrency be considered legal money, and approved as a general medium of exchange from the Islamic finance perspective?

The findings of this research effort reveal that there is no conclusive answer of whether cryptocurrency is allowed in Islamic law (halal) or prohibited (haram), and for which the swing will in general be supportive of its blockchain fundamental innovation permissibility in Islam. Further, cryptocurrency needs to defeat negative suppositions encompassed by the abundance unpredictability and use in fraud and illegal actions. We conclude that cryptocurrency should be managed and carefully supervised by both financial law, and Sharia law in order to be passable by Muslims worldwide and particularly in the Gulf countries.

The findings also indicate that there is no specific form of money in the Islamic economic system, and this is not a justification for the abandonment of the two-mineral system that prevailed for long periods of human history, and a more efficient system has not been proven from it until this moment. And to take it as a monetary system entrusted with the interest and what achieves justice and efficiency in dealings between people.

Islamic law urges that modern means, technologies, and technology should be used for the good of people, in accordance with the provisions and principles of the Islamic Sharia. New developments in technology include digital or encrypted currencies. It is well known that one of the most important conditions of consideration for the currency is general acceptance and legal and legislative approval that makes it a place of value, and this is not achieved in digital or encrypted currencies, as there is no government authority that supervises its issuance. In addition to its ambiguity, which called on governments and their central banks not to recognize and warn against dealing with them, and that some parties deal with them and their proliferation does not eliminate the dangers surrounding them. They are many of them price fluctuations, instability, penetration, poor protection and proof of the true identity of the operator.

The right to monetary issuance - in the bimetallic system - is dependent on the Sultan and his deputies (the state) by agreement and others. Most likely, and only the Sultan and his deputies are allowed to issue currencies because of favoritism and impulses on the social body, confiscating their right to rent the issuance, and enabling private entities to collect profits without merit, unleashing in this chapter legitimizes unacceptably chaos. The Sultan must approve the monetary system that achieves economic efficiency that does not prejudice the intention of the stability of money as a fair and stable measure of values, and does not alter it to a less efficient system without good progressive reasons with the appreciation of trusting economists.

The source of the price is custom, but giving the status of discharge and the general approval of circulation is with the permission of the Sultan, who is bound not to harm and achieve justice in dealings between people. Cryptocurrencies face economic, technical, and legal risks, which make some Islamic scholars go to a prohibition of trading in interest, and we say the validity of the legal provisions relating to currencies to those who possess them, except for the different technologies on their ownership in different countries.

Cryptocurrency cannot also achieve the necessary conditions for recognition as issuance by the government due to its decentralized (diffuse) nature, and that the issue of its governance is still under consideration. Further, its potentiality has not been proven with the expectation of this in the future, and if it is proven, it is more likely that the money will not be struck and approved only from governor's side. At that time, it will not be called cryptocurrency, but digital money.

The most prominent dangers of this money are its value turmoil, the inability to control between the supply and demand of it, the use of issuers, and its achievement of financial chaos due to the ambiguity surrounding it. These currencies cannot be accepted as an auxiliary or supplementary criticism for the same aforementioned reasons.

It is a purpose of Islamic law to save money, and to prevent damage. The failure of regulators and supervisors to recognize or pledge to protect such currencies as official currencies puts them at risk, goods and damage.

Nor can these currencies be regarded as commodities. Because the commodity must have a benefit and achieve a real purpose and interest from it.

The provision is therefore legally suspended and the resolution of this matter is deferred to the need for further consideration, research and elaboration in all its aspects.

The study has some limitations as the sample size (12 Islamic scholars) is limited due to the scarcity of Islamic scholars specialized in Islamic finance and were willing to provide their options on this vague and unclear Islamic issue. Moreover, worth mentioning that a great deal of specialists declined to give remarks on such a doubtful point. Finally, future research may perhaps study the possibility of finding digital money issued by a central legal authority and based on its origin to real assets such as gold and silver, and generalize past experiences that tried to do so if its efficiency could be proven.

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