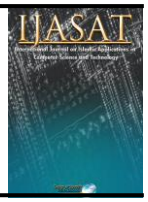

Users Perception of Cryptocurrency System Application from the Islamic Views

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Abstract
Cryptocurrency is a peer-to-peer digital exchange system that uses cryptography to generate and distribute token. It is based on an encrypted, peer-to-peer network that facilitates digital barter. By using a cryptocurrency, users are able to exchange value digitally without third party oversight. In regard to the Islamic perspective of cryptocurrency, Muslim scholars and Shari'ah experts have developed varied opinions, some considering it to be permissible (halal) and others prohibited (haram). Among those scholars who consider it to be legally impermissible put forward their reasons, some of them arguing that it violates the constitutions of their governments. On the other hand, there are Muslim scholars who regard cryptocurrency as permissible in principle. Furthermore, there are many uncertainties related to the implementation of the cryptocurrency reported by many researchers and mentioned in the respective fatwas. A number of empirical studies have acknowledged the fact that cryptocurrency, from the Islamic perspective, constitutes the focus of most ongoing research work. Therefore, this current paper seeks to examine the user's perception of cryptocurrency system application from the Islamic views. The paper utilized qualitative research approach by conducting interviews in order to determine the user perceptions of the system. The interview data gathered were analyzed. The findings indicate that there is lack of Islamic law on the basic criteria for the use of cryptocurrency as either a legal or illegal machinery transaction tool. Hence, Islamic digital currency model is necessary for applying Islamic law to the use of cryptocurrency.

Keywords: **Blockchain, Cryptocurrency, Bitcoin, Islamic Perspective, Sharia Compliance.**

1. Introduction
The process of applying Islamic standards to technological systems has already begun (Ogunbado, Ahmed, & Daud, 2016). One crucial aspect of this form of adaptation constitutes money and financial transactions. Historically, bartering meaning the direct exchange of goods and services was used before the introduction of paper money and modern banking. This barter system was considerably efficient, which may explain why it was used for so many centuries without the apparent need to replace it. However, with the advent of more sophisticated forms of production and rapidly expanding markets, it became less and less efficient. Thus, alternative means of transactions were devised culminating in the creation of paper money issued by the government and banks, which made financial transactions more transparent and regulated. Central banks began issuing pieces of paper in various denominations. In today's world, the majority of all national currencies are non-convertible fiat (Yawe & Prabhu, 2015). With the advancement of information and communication technology in the 21st century, Bitcoin and cryptocurrency have emerged commonly called 'virtual currency'.

With the adoption of computer systems by the mainstream banking industry, the use of digital cash and transactions based on electronic money has become the prevalent practice that continues to gain in popularity. Most mainstream banking systems operate using the 'fractional reserve' model whereby banks are legally allowed to loan money into existence. In fact, large amounts of money are created through bank loans. Therefore, the users of these centralized banking networks are forced to accept the precepts of the fractional reserve model, despite their potential of manipulating the value of currencies and private wealth. It is argued that if individuals were able to transact freely between themselves through a peer-to-peer network, it would allow society to determine the value its currency. Such a system would require technologies that make it extremely difficult or virtually impossible to fraudulently manipulate transactions or balances. This has given rise to blockchain technology which achieves all these goals by providing a platform for legitimacy of an instrument that can be recorded and recognized as a digital medium of exchange or cryptocurrency that is virtually impossible to manipulate.

The first successful decentralized cryptocurrency is known as Bitcoin and was launched in 2009 under the pseudonym of Satoshi Nakamoto (Nakamoto, 2008). Many other cryptocurrencies have been created following the success of Bitcoin (Mukhopadhyay et al., 2016; Ahamad, Nair, & Varghese, 2013). M-Pesa was created in Africa, which later spread to other continents. It constituted a mobile online payment system where users could deposit money into an account stored in their mobile phone and send PIN-secured SMS texts to other users in order to transfer money (Jack & Suri, 2011). Cryptocurrency is a peer-to-peer digital exchange system that uses cryptography to generate and distribute tokens (Farell, 2015). It is based on an encrypted, peer-to-peer network that facilitates digital barter. Bitcoin, the first and most popular cryptocurrency, is being considered as a new technology disrupting the established and trusted financial payment systems that have been in place for decades. Cryptocurrencies may revolutionize the digital trade markets by creating a free-flowing trading system without banking fees. By using a cryptocurrency, users are able to exchange value digitally without third party oversight. Cryptocurrency works on the theory of solving encryption algorithms to create unique hashes that are finite in number. Combined with a network of computers verifying transactions, users are able to exchange hashes as if exchanging physical currency (Devries, 2016). Cryptocurrencies have emerged as important financial software systems that rely on a secure distributed ledger data structure. Mining constitutes an integral part of such systems as it adds records of past transactions to the distributed ledger known as blockchain and allows users to reach consensus for each transaction. Cryptocurrencies rely on miners to validate any transaction (Mukhopadhyay et al., 2016). The most popular cryptocurrency and largest by market capitalization is Bitcoin. A USD $1,000 investment in Bitcoin in July of 2010 would have returned a USD $81,000,000 seven years later (Phillip, Chan & Peiris, 2018). According to Ahamad et al., (2013): Cryptocurrency works as follows the user possesses a 'wallet' with a generated address. This address acts as a public key. The wallet also contains a generated private key, which is used to sign transactions, proving ownership. The payer sends money to the payee's address, and signs it using the payer's private key (Loera, 2014).

In the context of the Shari'ah, the basic necessity for a counter value or consideration is that it can be defined as capital (mal). Therefore, before discussing the status of cryptocurrencies according to Islamic law, it is important to look at the concept of capital in Shar'iah. According to the Lisan al-'Arab dictionary, 'mal' refers to something which can be owned. Al-Isfahani (1992) argues that 'mal' is something which is desirable and can be transferred from one person

to another. However, an item that "can neither be stored nor possessed cannot be considered as mal: a bird in the sky, a fish in the water, and unknown treasures hidden under the earth". In regard to the Islamic perspective of cryptocurrency, Muslim scholars and Shari'ah experts have developed varied opinions, some considering it to be permissible (halal) and others prohibited (haram). Among those scholars who consider it to be legally impermissible put forward their reasons, some of them arguing that it violates the constitutions of their governments. On the other hand, there are Muslim scholars who regard cryptocurrency as permissible in principle.

The Grand Mufti of Egypt and also the Fatwa Center of Palestine declared that cryptocurrency and bitcoin are haram meaning prohibited by the Shari'ah (JORDAN, 2018). Similarly, the Turkish government's religious authority and also the UK based scholar Shaykh Haitam decided that bitcoin and all other cryptocurrencies are prohibited and that the buying and selling of virtual currencies is not compatible with Islam (Tyson O'Ham, 2017). The Fatwa center of the South African Islamic seminary, Darul Uloom Zakariyya, has taken the position that bitcoin and cryptocurrency in general fulfil the conditions of 'mal' and are therefore permissible for trade. However, they note that to be qualified as currency, it should be approved by the relevant government authorities. Some scholars are of the opinion that cryptocurrency and bitcoin are permissible by principle (Razali, 2012). This standpoint is supported by the legal maxim 'al-asl fi l-mu'amalat al-ibahah' meaning that the basis of any financial and business transaction is its permissibility. In other words, everything is permissible unless it is found clearly contradictory to Shari'ah principles. According to this principle, cryptocurrency is therefore permissible. This lack of consensus on the issue of the permissibility of cryptocurrency is discussed by Zubaidi and Abdullah (2017), Abu Bakar, Rosbi, and Uzaki (2017), Muhamed, Ariff and Radin, (2016) and Nurhisam (2017). As a result, this paper investigates the legal uncertainties surrounding the use of cryptocurrency from the Islamic perspective.

2. Related Work

There are lots of argument related to the use of cryptocurrency in research community. Crucial to this are some of the empirical studies reviewed in this paper.

The combination of digital currencies with cryptography is named as cryptocurrencies or cryptocoins. The transaction which happen in cryptocurrencies are very secured with strong cryptographic hash functions that ensure the safe sending and receiving of assets within the transaction chain in a Peer-to-Peer network (Singh, Suguna, Satish, & Ranjith Kumar, 2018). A number of studies suggest that cryptocurrencies show expectable patterns with mostly oscillating persistence, in general it is attached with several unique properties including leverage effects (Phillip et al., 2018). Although astonishing price appreciation in recent years, cryptocurrencies have been subjected to accusations of pricing bubbles central to the trilemma that exists between regulatory oversights, each influence the perception of the role of cryptocurrencies as a credible investment asset class and legitimate of value (Corbet, Lucey, Urquhart, & Yarovaya, 2018). The fact that Bitcoin is mined in a decentralized manner and the fact that this cryptocurrency is not backed by any government make it similar to gold in terms of its essential features. The notion that Bitcoin constitutes a medium of exchange likens it to a currency (Baur, Dimpfl & Kuck, (2017). Besides Bitcoin being very different from gold as it possesses no intrinsic value and from other fiat currencies, it also features unique risk-return characteristics. It entails a different volatility process in comparison to other assets and does not correlate with them (Baur et al., 2017). Maria, Gil-alana, & Plastun, (2018) examine the degree of persistence of the four main cryptocurrencies (BitCoin, LiteCoin, Ripple and Dash) and its evolution over time. It was revealed that cryptocurrency market is still inefficient, but is becoming less so. This is especially true of the Litecoin market, where the Hurst exponent

dropped considerably over time, this persistence decrease implies predictability, and therefore represents evidence of market inefficiency, suggesting that the trending strategies can be used to generate abnormal profits in the cryptocurrency market.

There is a need for more studies on digital currencies, particularly that there is now a proliferation of other digital currencies, although still much smaller than bitcoin, such as Litecoin, Peercoin, Namecoin and Quackcoin (Cheung, Roca, & Su, 2015). Corbet et al., (2018) analyse time and frequency domains relationships between three popular cryptocurrencies and a variety of other financial assets. The outcome reveals the evidence of the relative isolation of assets from financial and economic aspects. Cryptocurrencies may offer diversification benefits for investors with short investment horizons. Significantly, cryptocurrencies possess all the traditional characteristics that tax haves do; earnings are not subject to taxation, and taxpayers' anonymity is maintained. The operation of cryptocurrencies, however, is not dependent on the existence of financial intermediaries. Thus, cryptocurrencies have the potential of defeating the recent successes of governments in battling offshore tax evasion (Marian, 2013). Cryptocurrency community members (wallet-holders or participants) are all parties to one multilateral agreement use of smart contract technology is part of that agreement, lawyers who use their "(smart) contract lenses" may see a clearer picture when analyzing cryptocurrency transfers, cryptocurrency participants use software that initiates, controls and documents legally relevant acts, depending on predetermined and digitally proven events (Geiregat, 2018).

Despite many blockchain applications in different areas, very few studies exist that investigate the impact of cryptocurrency in financial transactions from the Islamic perspective. It is argued that Islamic cryptocurrency requires further research in order to facilitate a more thorough understanding of the topic (Zubaidi & Abdullah, 2017). A framework for cryptocurrency diagnostics from the perspective of Islamic finance is considered as highly uncertain and therefore not recommended (Abu Bakar, Rosbi, & Uzaki, 2017). An Islamic finance perspective on virtual currency is included, given Malaysia's dual financial system that supports both conventional and Islamic finance. His article also draws attention to some of the possible regulatory challenges that virtual currency may create (Muhamed, Ariff, & Radin, 2016). When viewed from the perspective of Islamic law, the issuance of money as a means of transactions in a country constitutes a matter protected under Islamic law. Therefore, the issuance of money and the determination of the amount relates to the benefit of the people. The focus in this research is the use of cryptocurrency as currency and transaction tool as viewed from the perspective of Islamic law (Nurhisam, 2017).

3. Research Gaps in the Literature

The literature reviewed provides an overview of the research completed on cryptocurrency in general and in the context of Islamic law in particular. This research takes as a starting point the research done by Abu Bakar et al.(2017), Zubaidi and Abdullah (2017), Muhamed et al. (2016), and Nurhisam (2017) who have discussed the uncertainty of cryptocurrencies application in financial transactions from the Islamic perspective. Coupled with the lack of Islamic digital currency model and the necessity of applying Islamic law to the use of cryptocurrency, this study analyses the findings of those previous works and attempts to fill the existing research gaps.

These existing studies revealed that Shari'ah compliant digital currency use can be developed if all the issues related to validity are addressed and resolved through a viable Islamic digital currency model (Zubaidi & Abdullah, 2017). Unfortunately, the existing studies do not propose

a working model for Islamic digital currency. Muhamed et al. (2016) suggest that any Islamic virtual currency model should support both conventional and Islamic finance, yet provides no empirical evidence supporting this claim. Islamic law contains a number of basic criteria for the use of cryptocurrencies as a currency and transaction tool (Nurhisam, 2017) even though he does not offer definite theoretical and practical criteria for this proposition.

4. Research Methodology

Qualitative method demonstrate a unique approach to scholarly inquiry. It employs different philosophical expectations; strategies of inquiry; and methods of data collection, analysis, and interpretation. It rely on text and image data, in unique steps in data analysis, and draw on diverse strategies of inquiry (Leung, 2015). Data in the field at the site where participants experience issue or problem under study are generated. They do not bring individuals into a lab nor do they typically send out instruments for individuals to complete. Hence, examining documents, observing behavior, or interviewing participants are the key aspect of this research. In the entire qualitative research process, the researcher keeps a focus on learning the meaning that the participants hold about the problem or issue, not the meaning that the researchers bring to the research or that writers express in the literature. The key idea is to learn about the problem or issue from participants and to address the research to obtain that information. This involves reporting multiple perspectives, identifying the many factors involved in a situation, and generally sketching the larger picture that emerges (Sutton & Austin, 2015).

4.1 Data Collection Procedures

The data collection steps include setting the boundaries for the study, collecting Information through unstructured or semi structured observations and interviews, documents, and visual materials, as well as establishing the protocol for recording information.

4.1.1 Sampling Technique

For this study, purposive sampling has been selected. The reason for choosing this sampling method is to purposefully select participants that will best help the researcher understand the problem and the research question. A discussion about participants and site might include four aspects identified by Miles, Huberman, & Saldana, (2013): (a) the setting (i.e., where the research will take place), (b) the actors (i.e., who will be observed or interviewed), (c) the events (i.e., what the actors will be observed or interviewed doing), and (d) the process (i.e., the evolving nature of events undertaken by the actors within the setting).

4.1.2 Instrumentation and the Field Interview

The instrument for this preliminary qualitative study is an open-ended questions. These questions have been validated by experts. Finally, after validation and subsequent corrections the following interview question were developed:

I. What is the scope of Sharia in Cryptocurrency Research?
II. What is the underline argument related to the use of cryptocurrency from Islamic Perspective?
III. What are the factors of implementing cryptocurrency from the Islamic Perspective?
IV. What is the views about the legality of cryptocurrency from Islamic Perspective?

The preliminary field interview cycle was performed from 13th August 2018 to 2nd October 2018. The interview has been conducted with four participants, this number is justified by Creswell & Creswell, (2017) to be appropriate for qualitative study. This is certainly one approach to the sample size issue, which dwells on the idea of saturation for developing a grounded theory. According to Charmaz,(2006) data collection should stop even with two participant when the categories (or themes) are saturated. Hence, the sample participant for this

study are enough to produce reliable grounded theory, the profile of the participants based on professional ground are presented in Table 1 bellow.

Table 1. Participants details

Participant ID	Professional Background
P1	Executive director of academy for Islamic finance and a distinguish member of sharia advisory council in Bank Negara Malaysia
P2	Executive Director in Mu'amalat international berhad Malaysia
P3	Associate professor (Islamic Clerics) in a university in Malaysia.
P4	professor and also a member of Financial Regulation Advisory Council of Experts Central bank of Nigerian

The profile of the participants based on professional ground are; executive director of academy for Islamic finance and a distinguish member of sharia advisory council in Bank Negara Malaysia. The next person is professor and also a member of Financial Regulation Advisory Council of Experts Central bank of Nigerian, followed by the Executive Director in Mu'amalat international berhad Malaysia, and an Associate professor (Islamic Clerics) in a university in Malaysia.

The interview session began with the first professor on appointment at his residence, it lasted for 20 minutes respectively. The second participants lasted for 8 minutes 19 seconds in the responded office. The third interview was through WhatsApp messenger, the participant replied in text, finally the fourth interview was performed during a conference at one of the hotels in Kuala Lumpur. After the interview the data were transcripted and coded for analysis.

5. Data Analysis and Interpretation

In qualitative research, the impact of data analysis is to aggregate data into a small number of themes, something like five to seven themes (Creswell & Creswell, 2017). This current study, organize and prepare the data for analysis. It involves transcribing interviews by typing up all the recorded audio, and sorting and arranging the data into different types depending on the sources of information. This has provided with a general understanding of the information and given the opportunity to reflect on its overall meaning. It contains the general ideas of the participants, the tone of their ideas, the impression of the overall depth, credibility, and use of the information. Thereafter, coding all of the data has been performed. This is the process of organizing the data by bracketing chunks (or text segments) and writing a word representing a category in the margins (Rallis & Rossman, 2012). It involves taking text data gathered during data collection, segmenting sentences (or paragraphs) into categories, and labeling those categories with a term, often a term based in the actual language of the participant. The coding process generate a description of the setting or themes for analysis. After the coding, critical discussion and analysis of these themes were carried out. This appear as major findings of the study. Then the findings were interpreted.

5.1 Interpretation of the findings

5.1.1 The scope of Sharia in Cryptocurrency

The scope of Sharia in Cryptocurrency has been revealed by **P1** that *"It does not went deep in weather cryto is acceptable in sharia perspective this would be fiqhi discussion"* This indicate that cryptocurrency from Islamic perspective has not been deeply investigated by the research community to this point. Although as a discipline, cryptocurrency deals with transactions that

involves two ends, typically, it is also known as tokens, which is the representations of digital assets (Minor, 2015). **P1** reveals that, if cryptocurrency research should be viewed from Islamic perspective, then it should be "in fiqhi perspective, and this would not be in line with IT (information Technology) to be taken by fiqh department or law. But It would be assumed that they role of IT in cryptocurrency research will be good to look into different fatwa that in order to examine the fatwa and the problem with their fatwa is they don't have strong reference, And most of the ulama don't have strong bases to say its *haram*. **P1** reveals that *"The role of IT is good to gather the opinion of all fatwas".* The problem of cryptocurrency is has so many types, some are use as currency, whereas some are use as a medium of exchange. IT research need to look on this. Hence, its other dimension is the trend where people want to start a company and then will be issue crypto. This crypto will be connected to the company directly, and there is no direct connection between the company and crypto because it is assume that if the company goes bankrupt the crypto value will go down. Then the investors who invest will buy the crypto and they will not blame the company. **P2** reveals that *"in cryptocurrency we need to understand weather this cryptocurrency is an asset or not asset, the moment we understand the cryptocurrency is an asset we need to understand weather this asset is shar'yi or not shar'yi asset. Because there are two important things we need to understand .this is intangible asset and there also parameters of intrinsic value or not intrinsic value"*.

This is reveal that no clear argument showing cryptocurrency is asset or not asset. Asset deals with tangible liquid asset that gets its value from a contractual claim. Cash, stocks, bonds, bank deposits and the like are examples of assets. The solution regarding this issues is good for financial expert to look on this sector and come out with result on whether cryptocurrency can be classify as an tangible asset or intangible to give sharia expert clear view on this idea. That is most important the scope of shari'ah need to futher research. Although, Cryptocurrency is a relatively new form of monetary exchange for good and services that is based on digital currency. It is revealed by **P3**, that *"The scope of sharia in this financial realm is to ascertain the admissibility of its usage based on Quran, Sunnah and Ijtimaah"* This indicate that using the virtual currency for good and services must be on sharia bases since is new in its kind. Currently no any standard fatwa or legal statement that support the using of cryptocurrency from sharia point of view. Maybe after solving the issue from *quran* and *sunnah* or *ijtimah* this will lead us to get sharia standard and allow the consumers to run their daily routine activities. Nevertheless Shariah scope is vital because a lot of Muslims are keying in to the usage of this financial form without understanding the Islamic ruling on it. Shariah as Islamic law is then obliged to provide a set of guidelines on the Islamic legal ramifications of the use of cryptocurrencies.

Another aspect of the scope and use of cryptocurrency from Islamic perspective as reveals by **P4** is that for *"the operators and investors of the cryptocurrency to provide guidelines for operations, sales, purchase, agreement, validity of transactions and resolution of disputes as well as protection of trust based on Islamic principles."* This specify that the operators workers investors of the virtual currency have to state some clear rules related to cryptocurrency transaction , also the absence of rule will lead to distrust or unreliability of the running or doing transaction with the cryptocurrency. Therefore, the experts who are behind this phenomena require to come out with concrete guidelines that is based on Islamic principles. Which depend on whether it is accepted or not by the Shariah. Similarly The focus of the Shariah expert in this aspect as reveals by **P4** *"to see the legitimacy of the all exercise or the shariah compliance of each, that is what matter when it comes to space of shariah discussion"* and *"whether or not using cryptocurrency in transactions is acceptable by the sharia standard. Up till now the main issue that has to be settle before arriving at the sharia view is that it should; "be classify as a*

currency or classify as asset" This indicate that before solving the issue of cryptocurrency from sharia view is better to look and understand clearly to classify it on whether is Asset or currency. Because some declared that their crypto is back by asset and others are saying is a currency. So this is good for researchers to explore more on that issue. It is difficult to come out with sharia rules and regulation before looking at it as an asset or currency. **P4** also reveals that *"the moment we understand cryptocurrency as an asset then will apply guidelines of sharia regarding to asset, if its currency also guidelines of sharia rules regulation of currency to be apply on it".* In this case, a specific judgment is made, then it can now proceed to give the sharia perspective, if its regarded as an asset then it will apply the sharia rules and regulations in dealing with asset, if its judge to be currency like dollars or ringgit etc, then rules guiding the use of currency transactions will be applied to it. The research is still ongoing on this issue because it is a new phenomenon. Though **P4** stated that it could *"rather support treating cryptocurrency as an asset than been a currency".* Based on this perception, it is good to treat cryptocurrency as an asset rather than to be currency so that to go for further research and explore more result. Because if it is at the category of currency the guidelines of *riba* will come in.

However, at the moment no grounded theory showing cryptocurrency as an asset. Some sharia expert argued that cryptocurrency is not asset. So is better to look at the factors that will allow it to be qualify as an asset. Also **P4** claim that *"it's better to see it as an asset just like a gram of gold or a gram of silver or whatever so we should also look cryptocurrency from that perspective and that will give us a lay way to now see what the sharia are"* will apply.

5.1.2 The underline argument related to the use of cryptocurrency from Islamic Perspective

The use of cryptocurrency from Islamic Perspective comes into be by the realization of it's perceive un-Islamic nature. As reveal by **P1** that *"Nowadays the discussion is on to use cryptocurrency as a medium of exchange."* This clearly shows that at the present time most of the discussions is on the acceptance of cryptocurrency as medium of exchange. However the understanding of money includes its function as store of value, a medium of exchange and unit of account. But according to the founder of Bitcoin statoshi nakamoto in his white paper saw it performing all these function (Nakamoto, 2008). If we use cryptocurrency as medium exchange so there is no exchange rate to worry about, and you can do business worldwide. One of the top drawbacks for those who like using Bitcoin as a medium of exchange is that they don't have to wait for funds to be converted from one currency to another and they don't lose money to currency conversion fees. Looking at it from Islamic perspective, the transaction involve should be the key issue. **P1** consider that *"the very prominent argument is that the currency is not issued by the government"* According to this argument, cryptocurrency is not issued by government that's the reason why there are many discussion behind it. But if it issued by the government means is not cryptocurrency, as stated by Satashi Nakamoto, to be decentralized peer to peer digital payment worldwide without third party involvement.

It is only a matter of time until the relevant authorities thoroughly research and understand the topic well enough to roll out their own cryptos. Government need to come out with some regulatory framework for cryptocurrencies, this will help the issues of backing by government. **P1** stated *that "in fiqh the ulama they are divided in the definition of money they said that only government has right to issue money. The currency to be right of the government not anyone but hanafi scholars said everything if there is taradi or acceptable by people is halal*. **P1** raze a question that *"is there any crypto that has backing of underlying asset? Although some argue that some crypto are back by gold which is either true or not? Allahu alam."* This is with a

similar views of some authorities of crypto market that are claiming that their crypto is based by asset means backed by gold, silver etc. According to Salman & Razzaq, (2018) one gram of cryptocurrency is backed by gold and is the first cryptocurrency that has been certified in compliance with the Islamic Shariah., "Some of the central bank try to issue their own cryptocurrencies.

Although as indicated by **P2** that *"There are no regulator monitoring the asset and its freedom"* This claim that the absence of regulatory frame will give people freedom to do whatever behind the transaction system. Open gate for money laundering, drug money and *haram* money and can be used directly to fund terrorists. To avoid risk we need to come out with some solutions on this matter on how to use it without making destruction to the society. So were the situation and collision are not under certain regulation and not under control by regulator responsibility, it will exposed very high risk for anything happening in the demand and supply of the cryptocurrency. It's clear that, the underlying argument in the shariah is whether it is an acceptable form of financial transaction or not. **P3** asserted that "This is informed by the fact that the cryptocurrency is non-physical and the value is not pegged to any physical form of currency such as gold or the dollar. "This argument shows that the cryptocurrencies is not something physical that exist, which as form by gold or other currencies. The value also is not fixed means more fluctuating that will lead to high risk in financial transaction. Towards the end of 2017, after unprecedented spikes elevated its price to over $20,000 per unit, Bitcoin plummeted and lost $8,000 in a matter of days, closing at around $12,000. So it's very possible, therefore, cryptocurrency backed by minerals or oil is more stable in price if issued by crypto expert.

5.1.3 The factors of implementing cryptocurrency from the Islamic Perspective

Cryptocurrency is currently gaining some ground. Its application has been paramount to its success, however, there are some important factors for implementing it from the Islamic Perspective. **P4** reveals that *"input from both ulama, fuqaha and financial expert, bankers,. Especially who are working alone side fuqaha are required*". However it is limited currently. Additionally **P1** argue that *"Most of the literature, a lot of information is based on assumption is not really based on what is happening at ground, many of them do not give final view."* Hence this indicate that most of the literature related to cryptocurrency from Islamic perspective is under assumption, rather than associated to a grounded theory. Whereas those who are doing research on cryptocurrency from Islamic perspective are limited, nevertheless they didn't point out strong based that will show whether cryptocurrency is *halal* or *haram*. However, most of them didn't come out with final view on cryptocurrency concerns, therefore is good for the expert to come out with the strong guideline for sharia and to focus on what exactly it's happening on the ground. **P1** added that *"there are some government who approved crypto and some are against it"*.

From another perspective **P1** identified that *"there are different between crypto as a currency and crypto use as an investment Example crypto as a currency is to buy something with Bitcoin. The Bitcoin now is same as other currencies"* The **P1** here point out the difference between using cryptocurrency as currency and using it as an investment, when it comes to currency, it means that by using Bitcoin it can be pay for flights and hotels. Microsoft accepts bitcoin in its app stores, where you can download movies, games and app-based services. Bitcoin is also accepted by PayPal as a form of payment, Pizzaforcoins accept over 50 different kinds of cryptocurrency. When it comes to using cryptocurrency as an investment, it means people invest in cryptocurrencies like Bitcoin etc., it usually mean that they are buying Bitcoin for the long period of time and they believe that the price will eventually rise, regardless of the

dynamic of the system. Usually, people invest in Bitcoin because they believe in the technology. But there is high risk behind that, the value of cryptocurrencies may change significantly even in a single time, which would mean a capital loss of any kind of investment. In January 2018, the value of Bitcoin dropped by more than 10 percent, reaching the $8,000 mark. In February, the price fell below $8,000 and was traded as low as $7,574.20. Currently, in October 2018 the price again dropped to $6,554. For this reason cryptocurrencies could be an efficient medium of exchange for good and services but in dealing with investment it deals with many risk. Although **P1** claim that *"There are issues that cryptocurrency qualified as and backed by government, and acceptable by people etc. But if the government solve the issues will be good."* This illustrate that there are issues that help to qualify cryptocurrency as currency, is to be backed by government. Then all matters regarding to that will reached to concrete solution. The lack of central authority is the primary reason governments are scared of the cryptocurrencies added to lack of central authority involvement.

P1 also reveal that, the reason why most of the fuqaha are not supporting cryptocurrency is because of *"gharar uncertainty. For example if you have crypto in your wallet, then someone attack your wallet and steal some amount of fund in the wallet, no one to be blame, who is responsible for that."* This specify that, the Fuqahaa don't agreed with the cryptocurrency due to the gharar (uncertainty) within the transaction. The gharar is the transactions with an uncertain or unclear outcomes due to the risky nature, which makes the trade similar to gambling. In relating this to cryptocurrencies like Bitcoin, the value can be speculative, it is unclear what a person is buying and what the result of the entire bitcoin venture is going to be. No any authorities to blame if attackers get access to your account or lose your wallet private key. This could be bad thing! Except the password is recovered, you have no way to access your wallet, that currency is lost forever. All this kind of issues make the cryptocurrencies as uncertainty. The Value which transfer from one account to another account in the transaction is transparent, but who own the account is the major issue that raised the reason behind gharar, we don't know with whom the transaction and interaction within the system is/are involved.
Determining the factors of implementing cryptocurrency from the Islamic Perspective has been viewed by **P4** to dwell on its legitimacy, that *is "only when you decided on the legitimacy of it that you can now start to lay down rules or implementation, if its argue in issue of illegitimate then there is no question of having rules of implementing what is illegitimate from the sharia perspective"*. Then for it to be settle, the **P4** reveals that *"We need also to agree on the nature of cryptocurrency in terms of being a currency or being an asset."*

This indicated that it is good to accept the nature of cryptocurrency and categorize it as an Asset or currency. Nevertheless the **P4** also emphasize the same argument as discussed, it is difficult to come out with sharia rules and regulation before looking at it as an asset or currency.
In other perspective three major factors of implementing cryptocurrency from the Islamic Perspective has been identified by **P2** as follows:-

- *"when we are talking about mining so there are issue of shari'ah compliance on the mining"*
- *"On the blockchain there issue of shari'ah compliance on the blockchain."*
- *"The exchange the exchanger there also are factors that need to consider weather Islamic perspective can be complied or not."*

Similarly another **P3** has viewed the factors of implementing cryptocurrency from the Islamic Perspective to include the following:

I. *"acceptability by the regulators/government agencies (ulul 'amr)";*
II. *"there must be physical backup for every digital currency which can provide some sort of insurance for transactions;"*

III. *"protecting it from severe fluctuations by not pegging it to only digital markets;"*
IV. *" clear means of addressing trade issues;"*
V. *"The ummah must be able to trust it as a valid means of exchange without fear of unnecessary risk of loss."*

5.1.4 The views about the legality of cryptocurrency from Islamic Perspective

In terms of legality of cryptocurrency from Islamic Perspective **P1** reveals that *"In Malaysia no official fatwa regarding to cryptocurrency currently".* Bank Negara Malaysia stated that digital currencies are not legal tender in Malaysia, digital currency businesses are not covered by prudential and market conduct standards or arrangements that are applicable to financial institutions regulated by the Bank. Also advice the public to carefully evaluate the risks associated with cryptocurrency (Bank Negara Malaysia, 2013).The **P1** clearly added that From the point of view *"No problem if they use crypto as medium exchange because the normal currency also are not backed by anything"* This shows that is good to accept cryptocurrency as a medium of exchange. The reason behind that, is the normal currency also is not backed by the government. Cryptocurrency survived now because of supply and demand. If no supply, then the demand will collapse. Trust is the most important factor that will allow people to be behind this kind of technology. And this will come from authorities that governs the Bitcoin network. **P1** raised the legality issues from a viewpoint *that "if I convert crypto to cash so is not transparency that's why its laundering."* This show that if someone has some bitcoin in his wallet and convert it to cash e.g dollars, Ringgit etc, its can be used for laundering, and money laundering is illegal. Cryptocurrency like Bitcoin are not related with a personal document or identity they only be governed by private key connected to the Bitcoin account. That is the reason why there is a risk of being involve in money laundering. The cryptocurrency also is a decentralized network, which means no central record-keeping mechanism that governments or financial institutions control or trace where the money is circulated.

Similarly **P3** reveal that *"The legality of cryptocurrency in Islamic perspective ranges from halal to haram and shubha."* For a wide range of scholars it bounds on shubha. The **P4** also stated that because of the *"lack of understanding of the way it operates and how to balance transactions therein".* Leads it future in doubt. According to **P4** cryptocurrency *"becomes haram because of the many loopholes known for normal valid Islamic financial transactions such as physical evidence of tender and item."* It is also bounds on the need to disentangle it from any form of gambling which is absolutely haram in Islam. The act of determining the value of a digital coin based on a set of algorithms make it akin to gambling as it indicates there is no accurate value for the currency until it is thus determined by it. **P4** also reveals that *"Scholars are still divided in this issues. Some of the scholars view it from the perspective of the practices that associated with cryptocurrency transaction."*

6. Conclusion

This study investigate the state of cryptocurrencies and examined Its Islamic perception. The study is performed by qualitative interview, where four participants participated. The central issues lies with the emergence of financial software systems that rely on blockchain, Bitcoin is a good example, because its transaction is based on an encrypted, peer-to-peer network, which cryptocurrency is the backbone. This is purely a digital cash for transactions based on electronic money. Unfortunately, the Islamic perspective of this kind of transaction which cryptocurrency hosted is still considers as either prohibited (haram) or impermissible (haram). This raised a lot of uncertainties related to its implementation. That is why research is very important in this area. Hence, the current paper present a qualitative interview research regarding Islamic perspectives of cryptocurrency. Some of the important findings draw by this research reveals

that the value of cryptocurrencies fluctuates with the most flimsy of reasons such as technical glitch or system hack. It is also described as gharar i.e uncertainty. Finally, the ummah must be able to trust it as a valid means of exchange without fear of unnecessary risk of loss.

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