Mined and Non-Mined Crypto Currencies: A Critical Analysis from Shariah Perspective

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Abstract:- Contrary to the popular belief that crypto currencies are a fad, crypto currencies are here to stay. The potential for crypto currencies in Islamic finance is massive as it would allow investors to participate in beneficial projects anywhere in the world. Though they are largely unregulated and not considered a legal tender in many jurisdictions yet. Many countries have put a stand on cryptocurrencies, while others have not. Critiques and scholars are of the opinion that only one major crypto will surface, the others will be fed away. Thus, on one hand, crypto currencies need to become easier to use, less volatile, and more regulated to ward off the possibilities of speculation, scam, and terrorism facilitation among other issues. in this paper we analyze the mined and non-mined crypto currencies from Shariah perspective.

***Keywords*:-** *Crypto Currency. Bitcoin, Shariah, Mined, nonmined, Digital.*

I. INTRODUCTION

Starting 2009, crypto currency had become a hype; the crypto currencies, especially Bitcoin, have become the talk of the decade. Seeing crypto currency's rising popularity and given its highly volatile nature, many believed that the crypto would be another bubble. So much so many people have termed the crypto rise as a fad; but they had been proved wrong when crypto currencies popularity did not fall despite the crash in crypto currency's prices. This has led to the claim by critiques that crypto currencies are not any fad, they are here to stay. However, many critiques and scholars are of the opinion that only one major crypto will surface, the others will be fed away (Forbes, 2017).

II. WHAT IS CRYPTO CURRENCY?

Investopedia defines Crypto currency as: "A crypto currency is a digital or virtual currency that uses cryptography for security.... Many crypto currencies are decentralized systems based on blockchain technology; a distributed ledger enforced by a disparate network of computers.... it is not issued by any central authority" (Investopedia, 2019).

According to Skarlatos & Plum (2018), there are more than 150 different kinds of crypto currencies with a combined market value of around $500 billion (Skarlatos & Plum, 2018). However, Mari (2017) said that the number of crypto currencies in circulation is 500 with approximately more than 5 million crypto currency users globally (Mari, 2017).

Bitcoin is the first, most widely used and most popular of available crypto currencies, which was introduced in 2009 by an anonymous person or group of people known by the pseudonym 'Satoshi Nakamoto', who also happens to be the author of the bitcoin white paper. Bitcoin can be used by whoever accepts bitcoin for payment, and its price depends on the market. Many people equate crypto currency and Bitcoin; however, crypto currency is much broader and covers any digital "coin" or token transferrable from one party to another without a central ledger (like a bank) recording the transfer. Many other crypto currencies have risen after Bitcoin and have grown tremendously in popularity, including Ripple, Litecoin, and Ethereum (Smith, 2018).

III. HOW IS CRYPTO CURRENCY PRODUCED?

The process of extracting or producing crypto currency is known as 'mining'. Crypto currency can be defined as a P2P encrypted digital currency, using cryptography rather than a central bank, to generate, exchange, and transfer units of currency. These individual units of currency are known as 'coins. In a crypto currency blockchain, transactions are funneled through coin "miners", who use high-powered computers to solve complicated cryptographic problems to securely verify the transactions. These virtual transactions are recorded in a global, digitized and decentralized public database called a "blockchain" (Tiwari, 2018). Cryptography enables the transactions to be secure as it makes it very difficult to produce counterfeit crypto currencies and it allows for a product that is fully decentralized, with no need for a third-party intermediary like a government or financial institution (Lerer, 2019).

Once a miner successfully solves a crypto puzzle, he is allowed to record a set of transactions and collect his reward in crypto currencies (Eyal & Sirer, 2018). The blockchain automatically records the transactions in units of blocks. Each block includes a unique ID, and the ID of the preceding block. Each transaction using a crypto is verified and its ID is modified, which enables the transaction to be recognized by everyone in the distributed blockchain network. The blockchain ledger is opened by the public key in order to enable submission of a ledger change. Thus, a crypto currency transaction does not need any clearing system as its intermediary (Pascoe & Scott, 2018).

After acquiring crypto currency, one needs to acquire/create a wallet in order to store the crypto currency and start transacting with it. A crypto currency trader's public and private keys are saved in the wallets, which are generally stored on removable devices, hard drives, or exchanges (Pascoe & Scott, 2018).

IV. MINED VS UNMINED CRYPTO CURRENCIES

While Bitcoin is considered the pioneering crypto currency in the market, there are many other types of crypto currencies available online. The process of extracting crypto currency through solving cryptographic puzzles is called mining. However, crypto currencies can not only be gained through mining. There are three types of crypto currencies depending on the nature of how these crypt currencies are created:

- Mineable
- Non-mineable
- Pre-mined

A. Mineable Crypto Currencies

Mineable crypto currencies are those that are acquired through the process of mining. These types of coins are those that are given as an incentive to the miner who manages to solve a complex algorithm and, in turn, validates the transaction and adds the newly created block into the blockchain. For example: Bitcoin, Litecoin, and Ethereum (Cretien, 2018).

B. Pre-Mined Crypto Currencies

Pre-mined crypto currencies are those that are mined ahead of time by developers before they are made available for trading in the open market. In the case of pre-mined crypto currencies, a blockchain developer usually allocates a certain amount of credit to an address or wallet before launching the source code later on to other miners.

The pre-mining usually happens if the developer needs to pay for certain features during development, or during an Initial Coin Offering (ICO) where the coins bought at pre-sale are later on mined as part of the genesis block. These types of crypto currencies largely benefit the developers and those that were involved during the early stages of the development. Many crypto currencies available today is pre-mined to a certain extent, including Bitcoin and Ripple (Tiwari, 2018).

C. Non-Mineable Crypto Currencies

Non-mineable crypto currencies are those that are bought through wallets instead of being mined. In simple words, these are the coins that are already in circulation and are commonly stored in crypto currency wallets. The verification of transactions for non-mined crypto currencies happens through a consensus system by a selected number of trusted validators and the participants are not incentivized with the coin rewards. For example: IOTA, Cardano, etc (Smith, 2018).

V. ADVANTAGES AND DISADVANTAGES OF CRYPTO CURRENCIES

A. Advantages of Crypto Currency

In the early days of the development of crypto currencies and blockchain, many critiques had predicted that crypto currencies would be another fad. However, they had been proven wrong when despite of the extreme price volatility and negative returns, the popularity of crypto currencies does not seem to die, and the number of new crypto currencies continues to increase. While the debate over the value of crypto currencies, especially bitcoin, the blockchain technology that powers crypto currencies has been a hit. The development and use of blockchain technology has enabled many entities to issue virtual currencies that are equal of government issues in some regions of the world, despite lacking the government stamp of approval for complete authority (Baker, 2019).

The most important advantage of crypto currencies, unlike the currencies issued and backed by governments, is that there is no monetary authority attempting to lower the value of the currency to assist a country's export trade. Adopting crypto currencies as a country's official currency could avoid the need for massive printing of paper currency (Cretien, 2018).

Businesses of all sizes and sectors have started benefiting from blockchain technology. Blockchain is enabling a steady revolution in trade and transactions. The adoption of crypto currencies has taken off and the industry which is both globalized and localized has become more fluid, making the lines between exchanges and wallets blurrier. At the same time, the absence of an effective regulatory framework poses serious concerns about the viability of the entire ecosystem designed to support the multitude of emerging digitized currencies (DELİKANLI & VOGIAZAS , 2018).

Blockchain is an enabler. The creation of a self-executing computer program called 'smart contract' to make automatic payments will bring about a new revolution in the financial industry (Baker, 2019).

B. Disadvantages of Crypto Currency

Crypto currencies not being the legal tender and having an unknown issuer with no dominant authority monitoring and governing the system somewhat destroys the control of central banks and governments. Because of their volatility, crypto currencies are not as stable as compared to the currencies issued by the central banks. Crypto currency's value is very volatile that makes it extremely risky. Billionaire investor Warren Buffett has predicted a bad ending for crypto currencies, especially bitcoin (Lovelace Jr., 2018).

Crypto currencies can be used for specific purposes such as evading capital controls and facilitating unlawful activities such as payment for cyber-crime services and drug purchasing. That raises the possibility of speculation, scam, and terrorism facilitation among other issues. With

ISSN No:-2456-2165

crypto currencies being unregulated, the biggest threat is increase of cross-border transactions without government control. Thus, it has become imperative to account for and regulate crypto currencies and put appropriate control measures in place (Limon, 2018).

VI. LEGAL CHARACTERISTICS OF CRYPTO CURRENCIES

From a legal perspective, there are three types of currency:

A. Legal Tender

Business Dictionary defines legal tender as "Denomination of a country's currency that, by law, must be accepted as a medium for commercial exchange and payment for a money debt. While usually all denominations of the circulating paper money are legal tenders, the denomination and amount in coins acceptable as legal tender varies from country to country. Checks and postal orders are not legal tenders and are accepted only at the option of the creditor, lender, or seller. Also called lawful money" (Business Dictionary, 2019).

Thus, any form of money that is recognized as a medium of payment by a legal system is a legal tender. It is obligatory for everyone to accept it as it is issued by the government.

B. Illegal Tender

An illegal tender is any money which is prohibited to use by the government. These crypto currencies are considered illegal tender in some jurisdictions; up until recently crypto currencies were considered illegal.

C. Non-Legal Tender

A non-legal tender, on the other hand, is any currency that is not backed by a government. Neither it is obligatory for anyone to accept it nor is it prohibited to use by the government. The usage of a non-legal tender depends on the public acceptance.

The legal status of crypto currencies is much debated, uncertain and varies from jurisdiction to jurisdiction. Crypto currency holds the status of non-legal tender in many jurisdictions, though recently some jurisdictions have given it the status of legal tender such as Venezuela.

VII. RESEARCH METHODOLOGY

This study is based on the qualitative research method. The qualitative research method involves a website, news, reports, and texture or content analysis that permits the researcher to use these tools in accomplishing the research objectives. The researcher applied this method and used these tools to research about the "mined and non-mined cryptocurrencies: a critical analysis from shariah perspective".

VIII. SHARI'AH VIEWS ON CRYPTO CURRENCIES

If we have a look on the history of money, we can see that historically a lot of things have been used as money such as cattle, grain, stones, shells etc. If we study the historical practices related to money, we would know that government order (also known as legal tender) is not a necessary condition for a commodity to be used as money.

When analyzing crypto currency through Shari'ah perspective, following three dimensions need to be considered:

- Nature of the underlying instrument (Is crypto currency considered ma'al or not?)
- Permissibility of crypto currency
- Standpoint of Maqasid al Shari'ah (objectives of Shari'ah)

A. Nature of Underlying Instrument

First, we will analyze whether crypto currency satisfies the Shari'ah criteria for money (ma'al) or not. A very prominent Shari'ah scholar, Mufti Taqi Usmani defines money as: "whatever things are used as tool/method of exchange and measure of value as well as by which can be saved his worth it can be called "money".

Taking that definition, majority of other Shari'ah scholars agree that anything can be classified as money as long as they satisfy the following three objectives:
- Medium of exchange,
- Unit of account, and
- Store of value.

Thus, if we measure crypto currency on the above-mentioned definition, it fulfills all the three objectives of money. Despite not having the legal tender, crypto currency is widely used as a medium of exchange by the public, it fulfills the criteria of being unit of account and store of value as well.

Widely agreed by Shari'ah scholars, apart from the objectives mentioned above, another very important criteria for money as identified by Shariah is its acceptability by people, whether the acceptability comes through voluntary acceptance of people or by force imposition by government upon people through laws. Thus Shariah scholars unanimously agree that any commodity or thing can become money provided that it is widely accepted among the people, the government order is not necessary conditions for that (Al-Mausuah Al-Fiqhiyah Al-Kuwaitiyah, 1983).

While some scholars differ on the argument of crypto currency being money, saying that according to Shari'ah currency is only that thing which is recognized by the government as legal currency. The majority of Shari'ah scholars agree that irrespective of regulatory acceptance, Bitcoin has already been accepted by general social consensus, however this does not necessarily mean that crypto currencies can be recognized as a valid form of currency.

For the Shariah permissibility of crypto currencies, a crypto currency has to be tested against the Shari'ah prohibitions such as riba (interest), maysir (gambling), and gharar (uncertainity). While crypto currency generally passes the filter of riba, there are reservations when it comes to maysir and gharar. The element of gharar gives rise to speculation. Crypto currency, especially Bitcoin, is extremely speculative in nature. The below mentioned table mentions the percentage change in the prices of bitcoin over the period of last 5 years.

Period	Dollar Change	Percent Change
January 2018	-$ 1,264.45	-7.82%
December 2017	+$ 0.64	+0.00%
Last 6 months	+$ 12,542.09	+528.76%
Last 1 year	+$ 14,000.52	+1,532.58%
Last 2 years	+$ 14,464.90	+3,220.56%
Last 5 years	+$ 14,900.28	+108,208.25%

Table 1
Source: (Mahomed, Mohd, & Mohamad, 2018)

The table above is an evidence of the percentage change in the dollar price of Bitcoin over last 5 years. It also indicates towards the ambiguous and speculative nature of Bitcoin. Another group of Shari'ah scholars are of the opinion that Bitcoin and crypto currency cannot be declared impermissible only because they experience speculation. If this principle is valid, then trading in gold, silver, US Dollars, Euros and other foreign currencies would all be governed impermissible, since those assets also experience extreme levels of speculation.

Some Shari'ah scholars prohibit the use of Bitcoin with the reason that it can easily be used for illegal activities. It is also commonly argued that Bitcoin and other crypto currencies are extensively used for money laundering and further illegal purposes. As a rebuttal to this argument, scholars argue that all fiat currencies are used for illegal purposes such as money laundering, illegal commerce and fraud. It is eagerly acknowledged that the US Dollar is the most broadly used for currency for money laundering and other illegitimate purposes. Thus, this is an external reason which does not directly affects on Islamic legal principle of currency.

B. Permissibility of Crypto Currency

Shariah scholars are divided into two groups some scholars are of the opinion that it is permissible, and others consider it as impermissible. Some say it is a license and others regard it as a sanctuary. From the Shari'ah point of view, it is permissible in the last two types of dominations? to deal with Bitcoin and also other qualified cryptocurrencies. Nevertheless, the preservation and protection of wealth are one of the fundamental objectives of Shari'ah (maqasid al-Shari'ah). Therefore, it is very necessary for cryptocurrency users to be careful of its associated risks.

Various scholars are of the view that bitcoin is permitted in principle. This view can be analysed considering our discussion regarding both the criteria and classification of property (maal) and money.

Some Shari'ah scholars said that it is permissible. The first view is of the: sanctuary/haram impermissible. In which the Grand Mufti of Egypt Shaykh Shawki Allam and the fatwa center of Palestine also the UK based scholar Shaykh Haitam and Indian very famous Shari'ah scholar Maulana Khalid Saifullah Rahmani and Pakistani scholars as well as Bangladeshi. I think most famous Shari'ah scholars but not large said that the bitcoin is not permissible now a day. The rights and Agency for Religious Affairs of Turkey published fatwa about bitcoin that it is prohibited.

C. The views of those scholars who said that it is not permissible are as follows.

Bitcoin is easily used for illegal activities; consequently, people use bitcoin mostly for illegal and non-Shari'ah compliant purposes to avoid and hide from administrations and related authorities. Secondly, bitcoin is not legal tender, the issuer is unknown, and it has no dominant authority that monitors it, but somewhat it destroys the control of central banks and governments to monitor and control the regulatory system of economy. According to Religious Affairs of Turkey published fatwa, cryptocurrency basic attributes is that it affects the shrimp order of bitcoin: Issuing a dimension. As the currency of the future to be unknown. Do not have a guardian. Not being ruled out of government level monitoring and uncertainty and value of speculation. Most commonly used in non-cultural activities. Due to these attributes, the value of the bitcoin is not compromised.

A large group of scholars said that cryptocurrencies are permissible because of the social consensus concept. But they also said this does not necessarily mean that cryptocurrencies can be recognized as a valid form of currency. Some South African Shari'ah scholars said that cryptocurrencies are prohibited but one of the most prominent scholars in the world Shaikh Abdul Sattar Abu Ghuddah says that it sits on the border of permissibility and prohibition. So, users need to exercise caution. He and other scholars' issue with cryptocurrencies are their extremely speculative nature and safety risk.

D. Analyse and Examination of the First View: Bitcoin is Haram

It is not necessary to have the status of legal tender to be a money. The main conditions for money in Shari'ah are its acceptability by people - whether it comes by imposing it upon people through rules and regulations, or through extensive voluntary acceptance by the people. If we talk about central authority, then bitcoin is used the blockchain technology which is much more secure than any central system employed by a government or central bank.

ISSN No:-2456-2165

In the case of bitcoin, it is mathematically impossible to operate the laws and rules that govern bitcoin mining and transaction procedure, because the cryptographic technology that causes the currency prevents it. One of key concern in Shari'ah concerning money is the safeguarding and protection of wealth (maqasid al-Shari'ah). In several cases throughout history, governments and central banks have smashed wealth through inflation and the recent case at Central Bank of Bangladesh where scammers stole millions of dollars from its account. It means that the central bank is also exposed and opened to scam Weimar Germany in 1923, Greece in 1944, Hungary in 1946, Yugoslavia in 1994, Indonesia in 1999, and Zimbabwe 2008.

Bitcoin and cryptocurrency cannot be declared haram (impermissible) since they experience speculation. If this principle is valid and applied, then trading in gold, silver, US Dollars, and Euros would all be governed impermissible, since those assets also experience extreme levels of speculation and risk. For instance, twice the quantity of gold that has always been mined in the history of human civilization was traded in digital gold markets in a sole physical quarter.

It is also commonly argued that bitcoin and other cryptocurrencies are extensively used for money laundering and further illegal purposes. This is an external reason which does not directly affect on Islamic legal principle of currency. On this argument, it is especially important that all fiat currencies are used for illegal purposes for example money laundering, fraud, and illegal commerce. It is eagerly acknowledged that the US Dollar is the most broadly used currency for money laundering and other illegitimate purposes.

E. Analyse and Examination of the Second View: License / Permissible

A large group of scholars said that cryptocurrencies are permissible because of the social consensus of the people. Just like they had agreed on burly and wheat to be used as a money. But they also said this does not necessarily mean that cryptocurrencies can be recognized as a valid form of currency. Actually, there is a well-known legal maxim clarified by jurists: الاباحه في المعاملات ا الاصل . This means that original rule is permissibility in financial and commercial transactions. In other words, everything is permissible unless we found it clearly conflicting to Shari'ah philosophies. According to this principle, cryptocurrency is permissible in principle. Similarly, anything can be considered as money if it has these attributes:

- preserved as a valuable thing among the people;
- accepted as medium of exchange by all or significant group of people;
- it is a measure of value; and
- it serves as a unit of accounts.

Therefore, any cryptocurrency which achieves these conditions (such as bitcoin) is acceptable as money. The fatwa centre of the South African Islamic seminary, Darul Uloom Zakariyya, has taken the position that bitcoin accomplishes the conditions of maal and therefore it is permissible for trade. However, they noted that to be qualified as currency, it should be accepted by relevant government authorities. According to Professor Ziyad (Associate Professor at International Center for Education in Islamic Finance), "the potential for cryptocurrencies in Islamic finance is massive as it would allow investors to participate in beneficial projects anywhere in the world…. For example, digital coins can represent various sustainable development projects through a cooperative scheme. By investing in these coins, investors can diversify their portfolios with investments that not only give them returns but also make a difference in people's lives…. From a Shari'ah perspective, I think this is the ultimate goal — leveraging new technologies to benefit all parties in a legitimate, halal manner. This, I think, is the future of cryptocurrencies."

In his break through paper of modern and emerging Shari'ah scholar Mufti Abu Baker also said that he is "more inclined toward the second view that bitcoin is permissible in principle as bitcoin is treated and its value is reflected by market price on global exchanges and it is accepted for payment at a wide variety of merchants, including bakeries, restaurants, and even large ecommerce retailers like Overstock.com.

F. Standpoint of Maqasid al Shari'ah

If we analyze crypto currency from the Maqasid al Shariah point of view, we will see that the preservation and protection of wealth is one of the fundamental objectives of Shariah (Maqasid al-Shariah). Therefore, crypto currency is permissible as it does not conflict with the Shariah philosophy. However, it is very necessary for crypto currency users to be careful of its associated risks.

IX. ACCEPTANCE OF CRYPTO CURRENCY IN DIFFERENT JURISDICTIONS.

From the legal perspective, different countries have different stands towards crypto currencies. As per current practice, crypto currencies are traded outside of government interference or influence in most jurisdictions, but in some countries such as Japan and Venezuela, crypto currencies are being adopted as the official currency (Cretien, 2018). Let's examine the different approaches for crypto currency regulations adopted by different jurisdictions.

- *Japan*

Japan recognizes Bitcoin and other crypto currencies as legal tender under the Payment Services Act. Crypto currency exchanges are also considered legal, and they must be registered with the Financial Services Agency of Japan (Pollock, 2019).

➢ *Pakistan*

Pakistan had previously taken a hard stance against crypto currencies, with the country's central bank warning banks and other financial services providers against offering services that supported virtual currency transactions. However, the Pakistani government has recently announced that it will now regulate local crypto currency firms under new legislation. The government of Pakistan will introduce Electronic Money Institutions (EMI) regulations based on the recommendations of the France-based intergovernmental organization, Financial Action Task Force (FATF). These regulations will help for combating money laundering, terrorism financing and other threats to the integrity of the global financial system (Aki, 2019).

➢ *Canada*

Canada allows the use of crypto currencies and their trade is allowed on digital currency or crypto currency exchanges. However, crypto currencies are not considered as legal tender in Canada. The Canada Revenue Agency (CRA) characterizes crypto currency as a commodity. Canada's tax laws and rules also apply to crypto currency transactions and they are subject to the Income Tax Act. Commodities and services purchased using crypto currency must be included in the seller's income for tax purposes. Sales tax is also applicable to the items purchases using crypto currency on their fair market value (Library of Congress, 2019).

➢ *Bahrain*

Crypto currency is recognized as an asset in Bahrain. Previously, the CBB has been operating an incubator-style sandbox licensing program that allows the crypto-currency exchange platforms and companies using blockchain to test out their services. Now, the Central Bank of Bahrain (CBB) has come up with a comprehensive set of regulations that regulate the governance, licensing, minimum capital requirement, risk management, anti-money laundering, business conduct standards, reporting, avoidance of conflicts of interest, and cyber security for crypto-assets (Central Bank of Bahrain, 2019).

➢ *Mexico*

In Mexico, crypto currency is recognized as 'virtual asset' that is not a legal currency and is neither backed by Mexico's central bank nor by the federal government of Mexico. However, a law has been enacted by Mexico's federal government in March 2018 to regulate the financial technology companies that deals with the operations of crypto currencies, recognized as 'virtual assets' (Library of Congress, 2019).

➢ *Venezuela*

The government of Venezuela has created its own crypto currency under "Constituent Decree on the Integral System of Crypto Assets" in December 2017, known as 'the petro', which is backed by the Venezuelan barrels of oil. Venezuela promotes crypto currencies as legal mechanisms for economic exchange. The Petro has been created as "Sovereign Crypto-asset" and recognized as legal tender. The constituent decree deals with the operational details of petro, including its mining, issuance, and trading in Venezuela in compliance with the rules in the Civil Code pertaining to its sale and purchase (Library of Congress, 2019).

➢ *Austria*

Crypto currencies are neither identified as legal tender nor as financial instruments by the Austrian Ministry of Finance. Crypto currencies are rather classified as intangible commodities and treated like assets for taxation purposes, even crypto mining is treated as any other production activity. Crypto currencies are not qualified as legal tender, however they are generally accepted as non-legal tender as they are widely accepted as means of payment for goods and services. The Federal Ministry of Finance in Austria is in the process of establishing a Fintech Regulation Council to regulate crypto currencies as well as drafting a prospectuses for ICOs and introducing licensing by the Financial Market Authority (FMA) that decides on a case-by-case basis for ICO authorization (Library of Congress, 2019).

➢ *Czech Republic*

The Czech government treats Crypto currencies as commodity, in Czech Republic. The Czech National Bank defines crypto currencies as intangible assets, they are officially accepted as a payment method and don't fall under a law on payment systems. Crypto currencies are subject to Value Added Tax (VAT) in Czech Republic. Moreover, crypto mining is considered business activity, making it liable to taxation. Free crypto currency payments are allowed by the government across the country. In Czech Republic, crypto currency transactions are not regulated on the state level rather they are mainly regulated by the EU's laws, especially the AML-5 that prevents money laundering and illegal financial transactions (Blockchain & Bitcoin Conference, 2018).

➢ *Germany*

The German Federal Financial Supervisory Authority recognizes crypto currencies financial instruments, particularly, as units of account. Crypto currency exchange transactions to exchange a traditional currency for any crypto currencies and vice versa fall under the taxable supply of other services for consideration, but they are exempted from VAT (Value Added Tax) (Library of Congress, 2019).

➢ *Australia*

The Australian Taxation Office recognizes crypto currencies as commodities rather than money or a foreign currency. Crypto currency, being an intangible asset, is not subject to goods and services tax. Under the Corporations Act and various other acts of Australia, crypto currency appears to satisfy the definition of 'property' (Pascoe & Scott, 2018).

➢ *United States*

The Financial Crimes Enforcement Network of the Unites States does not consider crypto currencies as legal tender. However, the legality of crypto exchanges may vary across different states of the USA. The Securities and Exchange Commission views crypto currency as a security and securities laws are applied to the crypto currency exchanges as well as crypto currency digital wallets. However, the Commodity Futures Trading Commission identifies bitcoin as a commodity. On the other hand, the Internal Revenue Service (IRS) defines crypto currency as property, thus crypto currencies are taxed accordingly (Rooney, 2018).

➢ *United Kingdom*

Crypto currencies are not recognized as legal tender in the United Kingdom. The Financial Conduct Authority of England identifies crypto currencies to be high-risk, speculative products, and hence it has issued a warning against the use of crypto currencies to consumers. However, crypto currency exchanges are legal and need to be registered with the Financial Conduct Authority of England. Moreover, crypto currencies exchanges are subject to the same anti-money-laundering and counter-terrorism standards as other financial institutions (Rooney, 2018).

➢ *Switzerland*

Bitcoin is considered as a legal tender in Switzerland. Crypto exchanges are considered legal in Switzerland; however, they need to be register with the Swiss Financial Market Supervisory Authority. Switzerland is known to have the friendliest crypto currency regulations in the world. The Swiss town of Zug, popularly known as "Crypto Valley", is home to blockchain companies including the Ethereum Foundation, and crypto currency wallet company Cardano. Bitcoin and other crypto currencies are accepted as payments for administrative costs and municipal services in Zug.

The Swiss Financial Market Supervisory Authority has put up clear guidelines for ICOs and crypto currency taxation. Crypto currencies are treated like foreign currencies for tax purposes and are subject to wealth tax in Switzerland. The Swiss Federal Tax Administration taxes the crypto currency holders on 31st December of every fiscal year at the rate determined by the tax authorities (Rooney, 2018).

➢ *Saudi Arabia*

Previously, crypto currencies were not considered as legal tender in Saudi Arabia and the Saudi Arabian Monetary Agency (SAMA) had issued a warning against bitcoin to create awareness among the public that it was not being monitored or regulated by any legitimate financial authority in Saudi Arabia. However, Saudi Arabia and the UAE have joined hands to issue a sovereign crypto currency that is jointly developed to work between both countries. The newly developed digital currency is already in the testing stage. The new Saudi-Emirati crypto currency is strictly designed to be used for cross-border payments between central and local banks in the testing stage, and the results would determine whether or not it will eventually be available for purchase to the public (Moon, 2019).

➢ *Turkey*

Crypto currencies are not considered legal tender in Turkey and there are no specific laws governing crypto currencies in Turkey. However, Turkey's Banking Regulation and Supervision Agency (BRSA) and the Central Bank of the Republic of Turkey have been issuing public notifications clarifying that according to the Payment Services Law, bitcoin does not constitute as electronic money (TheCityUK, 2019).

➢ *China*

China put a harsh stand on crypto currency; crypto currencies are considered illegal tender and crypto currency exchanges are not considered legal either. Thus, crypto currency trading in China is technically illegal. China even banned the ICOs and shut down domestic crypto currency exchanges in 2017. Despite the ban, the activity in crypto currencies has been carried on through alternative channels like mining (Rooney, 2018).

Recently, China is rumored to take a completely contradictory step to its previous bans. In a contradictory move to banning bitcoin, the People's Bank of China (PBoC) is rumored to initiate the plans to create its own official crypto currency. The Center for Information Industry Development of the Chinese government recently signed a crypto regulation deal with South Korea (Kelso, 2018).

➢ *India*

Crypto currencies are not legal tender in India and the Indian central bank, Reserve Bank of India (RBI) has advised caution on their use and has issued multiple notifications prohibiting banks, lenders and other regulated financial institutions from dealing with virtual currencies.

The Indian government and ministry of finance do not consider crypto currencies as legal tender and steps are being taken to outlaw crypto currencies and to eliminate the use of crypto currencies as part of the payment system and in financing illegitimate activities, however the Indian government is proactively exploring the use of blockchain technology for steering its digital economy (Rooney, 2018).

➢ *Malaysia*

Crypto currencies are not recognised as legal tender in Malaysia, hence the crypto currency operations are not yet regulated by Bank Negara Malaysia (BNM), the Malaysian Central Bank. BNM previously issued a public notification apprising the public of the risks associated with the usage of crypto currencies. However, towards the end of 2017, the Bank proposed a policy on 'the invocation of reporting obligations on digital currency exchange business as reporting institutions under the Anti-Money Laundering, Anti-Terrorism Financing and

Proceeds of Unlawful Activities Act 2001 (AMLA)' and released it for public consultation. The policy recognizes crypto currency exchanges as businesses that exchange crypto currency for money, money for crypto currency, or exchange one crypto currency for another (Fong, SC Finally Reveals its Anticipated Regulations for Crypto Exchanges, 2019).

Bank Negara Malaysia has recently published a list of 56 crypto currency exchanges in Malaysia that have been registered as a reporting entity with the BNM after the AMLA. However, one thing that should be noted here is that despite being registered with the central bank, these exchanges are not allowed to portray themselves as a licensed entity under the Bank Negara Malaysia though they have reporting obligations to the regulator (Fong, 2019).

X. CONCLUSION

People consider it as a money, as it satisfies the main functions of money. If we evaluate the stance of both group of Shari'ah scholars we can come to the inference that those scholars who permit it have strong arguments which must be found in anything to be accepted as a money while on the other hand, those who prohibit it have provided arguments which mostly based on external causes which is not the intrinsic requirements for anything to be treated as a money. finally, thus, it has become imperative to account for crypto currencies and put appropriate control measures in place. Thus, we need to have clear classification for crypto currencies in the financial standards for appropriate recognition and disclosure of crypto currencies. Finally, this area is open for research and more work is needed to come to the concrete conclusion.

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