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Mechanism of Functional Cryptocurrency Trading from an Islamic Perspective

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ABSTRACT

This paper aims to study the mechanism of buying and selling cryptocurrency on the Digital Asset Exchange (DAX) platform from an Islamic perspective by discussing its Shariah issues. This study is a research paper in the form of qualitative research, sourced from secondary sources in the form of scientific books, journals, and books on jurisprudence related to cryptocurrency. This study also refers to the DAX platform from analyzing the Product Disclosure Sheet (PDS).It was found that contemporary Shariah scholars have different views regarding the Shariah reliability of cryptocurrencies. Therefore, this study focuses on contracts and types of cryptocurrency trading on the DAX platform in Malaysia and concludes that there is a fiqh takyif related to the form of cryptocurrency trading. However, the findings of this study must be subject to fatwas and regulations adopted within the specific jurisdiction of the sale and purchase business. The views of religious councils and contemporary Sharia scholars are considered in categorizing cryptocurrency sales contracts so that *fath dhara'i* can be applied to crypto currencies that are increasingly used. This research contributes significantly to the literature on Shariah-compliant cryptocurrency trading. By recognizing the permissibility of cryptocurrency within the framework of muamalah (Islamic commercial law), organizations can effectively apply principles to cryptocurrency transactions. This adaptation ensures transparent and compliant practices in the evolving digital financial landscape.

1. Islamic Perspective on Crypto Trading

Cryptocurrency has emerged as a rapidly growing and broadly accepted class of financial assets. Malaysia, a dynamic center of technology and finance, has witnessed a surge in interest in cryptocurrencies, leading to the establishment of cryptocurrency exchanges. The cryptocurrency exchanger is one of the leading cryptocurrency exchange platforms, providing Malaysians with the opportunity to participate in the purchase and trade of digital asset. According to The Securities Commission Malaysia [47] there are plenty of crypto exchange grant approvals to operate Digital Asset Exchange (DAX) in Malaysia, such as Luno, MX Global, Synegy, and Tokenize.

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To understand the current concept of buying or selling cryptocurrencies, it is essential to trace the history of cryptocurrency exchanges. The creation of Bitcoin in 2009 marked the birth of cryptocurrencies, leading to the establishment of the first cryptocurrency exchange, BitcoinMarket.com, in 2010 [24,41]. Over the years, numerous cryptocurrency exchanges have emerged, offering individuals the ability to exchange fiat currency for cryptocurrencies, and vice versa. These exchanges have facilitated the use of cryptocurrencies as an alternative financial asset.

The DAX platform allows users to buy and sell various cryptocurrencies, including Bitcoin, Ethereum, and others. Digital asset exchanges, such as Luno and Sinegy, offer a user-friendly interface, making it accessible to both experienced cryptocurrency users and newcomers to the world of digital assets. Users can create accounts, deposit funds, and execute trades.

The trading of cryptocurrencies on digital asset exchanges follows a straightforward buying and selling mechanism. Users need to register and create an account on the DAX platform, providing the necessary personal information and completing the Know Your Customer (KYC) verification process. Once the account is set up, users can deposit fiat currency into their digital wallets, either by linking their bank accounts or by using other supported payment methods. After depositing funds, users can choose from the available cryptocurrency options on the DAX and place buy or sell orders accordingly. The platform allows users to specify the desired amount and price of cryptocurrencies that they wish to trade. If a matching order exists on the platform, the trade is executed, and the purchased cryptocurrency is credited to the user's Luno wallet.

From an Islamic perspective, the concept of buying and selling cryptocurrencies raises various perspectives. Involvement in cryptocurrency activities depends on compliance with Islamic financial principles. Scholars and experts have expressed diverse opinions regarding the compatibility of cryptocurrencies with Islamic principles. One major concern is the speculative nature of cryptocurrencies, as their values fluctuate in response to market conditions, which may change their legal status. Islam prohibits excessive speculation and behaviors resembling gambling while emphasizing the importance of genuine economic activities. Therefore, it is crucial to assess whether the types of cryptocurrency trading on platforms such as Luno align with these Islamic principles. This journal aims to explore the mechanisms of various cryptocurrency trading types on the exchange platform from an Islamic perspective.

2. Literature Review

2.1 Current Shariah Perspective

This literature review provides a comprehensive overview of the studies conducted thus far on cryptocurrencies on cryptocurrency exchange platforms, with a specific focus on the context of the Exchanger platform. Cryptocurrencies such as Bitcoin, Ethereum, and Litecoin have gained momentum since the introduction of Bitcoin by Nakamoto [41]. These decentralized digital currencies operate based on blockchain technology and offer secure, transparent, and peer-to-peer transactions. Cryptocurrency exchange platforms play a significant role in facilitating the purchase and sale of digital assets. These platforms provide markets in which users can exchange fiat currencies or other cryptocurrencies for cryptocurrencies or crypto assets. In this context, the crypto-exchanger platform has emerged as one of the leading cryptocurrency exchanges, providing Malaysians with the opportunity to participate in the digital asset market.

This literature review centers on four primary dimensions: the attributes of exchanges or transactions in accordance with Islamic principles, the characteristics of cryptocurrencies, regulations surrounding cryptocurrencies, and the landscape of digital assets. A comprehensive understanding of these facets is imperative to attain a profound understanding of cryptocurrency buying and sale procedures on the Luno platform, particularly when viewed through the lens of Islamic principles. Cryptocurrencies possess several key characteristics, namely decentralization, cryptographic security, limited supply, and potential for price volatility [19,23,35]. These unique characteristics have sparked debate about their role as a medium of exchange, store of value, or speculative investment instruments. Many studies have explored market efficiency, liquidity, and price discovery mechanisms within the cryptocurrency ecosystem [14,19].

The mechanisms of cryptocurrency exchanges have been studied to understand their role in facilitating the trade of digital assets. Other studies have considered aspects like trading cycles and the consequences of market manipulation on exchanges [13,15,49]. Understanding these mechanisms is crucial for comprehending the types of cryptocurrency trading in accordance with Islamic views on exchange platforms, such as Luno and Sinegy. Furthermore, the digital currency landscape has been a major focus of policymakers and researchers. Different countries and jurisdictions have employed various approaches to regulate digital assets, moving toward stricter measures [36].

2.2 Islamic Principles in Buying and Selling of Goods

The term "al-bai'" (buying and selling) linguistically refers to the exchange of one item for another. From a Sharia perspective, "al-bai'" has diverse meanings as outlined by Islamic scholars. According to the Hanafi mazhab, buying and selling involve the exchange of one kind of wealth for another in a particular way, or the swap of a preferred item for another preferred item through a mutually agreed process, which is beneficial. According to the Shafi'i mazhab, buying and selling is the exchange of one form of wealth for another, both of which can be transferred through an offer and accepted in a way that is permissible by Sharia [6].

In Islam, buying and selling are viewed as economic activities regulated by moral principles and the Sharia laws. These principles emphasize justice, honesty, and balance in commercial transactions. In Islam, buying and selling is not merely a matter of exchanging goods but also reflects high ethical standards [32]. According to Kahf and Khan [32], justice is one of the key principles of Islamic buying and selling. Buyers and sellers are expected to act justly and not engage in deception or exploitation that harms the other party. This principle is emphasized in various verses of the Quran and the hadiths of Prophet Muhammad, which warn that injustice in buying and selling is a grave sin. The second principal concerns transparency and honesty. Buyers and sellers are required to provide clear and accurate information about the goods or services traded. Deliberately concealing defects or deficiencies in a product is considered unethical.

According to Imam al-Qurtubi, all forms of buying and selling are fundamentally permissible, but can become undesirable (makruh) or prohibited (haram) if they involve elements that are invalid, such as gambling, uncertainty, or forbidden elements such as alcohol. He further explains that buying and selling are both general and specific; it is permissible in general, except for usury and other prohibited elements, according to Sharia. According to al-Majaji [4], the concept of buying and selling refers to the existence of goods or benefits. From these definitions of buying and selling, there is a commonality that includes three main pillars (rukun):

i. The contracting parties–that is, buying and selling–involve two individuals engaging in an exchange (seller and buyer).
ii. The object of the contract is the exchange of goods that provide benefits to both parties (goods and prices).

iii. The verbal contract, where both parties possess something and transfer it with the intention of buying and selling, has permanent ownership (the offer and acceptance in verbal form).

2.3 History and Characteristics of Cryptocurrencies

Cryptocurrencies are digital in nature and highly secured through cryptographic techniques to ensure the safety of investors. In 2009, the first digital currency, Bitcoin, was introduced by Satoshi Nakamoto [23,44]. However, the idea of cryptocurrencies did not originate with Satoshi Nakamoto; it traces back to David Chaum, who created a system called the Cryptosystem, specifically eCash in 1990. The concept took shape in 1983 using the concept of the Blind Signature Cryptosystem [16].

The primary purpose of developing a cryptosystem is to reduce the use of paper and other carbon materials. The solution to reduce carbon usage is to create online agreements, resulting in untraceable digital payment systems [16]. This method evolved over time, leading to the creation of Bitcoin using a blockchain system, which employs a distributed ledger process using Distributed Ledger Technology (DLT), allowing transactions to be digitally recorded directly between buyers and suppliers in a publicly accessible ledger [20].

As of August 2023, there were nearly 1.8 million cryptocurrencies in existence, according to CoinMarketCap. However, this astonishing growth rate is not entirely satisfactory. Many new cryptocurrencies have no purpose other than generating profits for their developers. Researchers and policymakers, as Irwin and Milad [29] point out, are aware of this issue and acknowledge that digital currencies increase the market financial risk related to funding for violence. However, not all cryptocurrencies have malicious intent; their purpose should first be examined based on smart contracts on the blockchain.

According to Laldin and Furqani [34], this approach offers flexibility to introduce innovative transaction mechanisms and Islamic businesses, especially the use of smart contract technology. Al-Qomari [5] supports the use of smart contracts as a tool for implementing contracts that can achieve the goals of maqasid al-shariah related to wealth preservation. This is because smart contract code can only be used for valid inputs and outputs that have been predefined, along with a transparent verification and recording process within the blockchain ecosystem. This points out that the principle of fairness in Islamic transactions can be perpetuated by the deployment of smart contracts in contract execution.

2.4 The Legal Status of Cryptocurrencies

Earlier researchers have analyzed the compatibility of Islamic financial principles with cryptocurrencies by considering factors such as usury (riba), uncertainty (gharar), gambling (maysir), and the reliability of digital assets in Islamic finance [25]. Yusof and Ab. Rasid [50] carried out an in-depth analysis of cryptocurrencies from an Islamic perspective, identifying three viewpoints. The first category, several scholars, including Darul Iftaa Misriyyah, Sheikh Ali Qaradaghi, Wifaq al-Ulama, Dr. Ahmad Sufyan Che Abdullah, and Datuk Dr. Zulkifli Al-Bakri, consider cryptocurrencies to be forbidden (haram) in Islam. The second category, other Islamic scholars such as Datuk Dr. Mohd Daud Bakar, Dr. Zaharuddin, and Mufti Muhammad Abu Bakar consider cryptocurrencies to be permissible (halal) under the guidelines of Islamic law. The third category, as identified by Yusof and Ab. Rasid [50], includes those who have not yet officially taken a stance on the matter, such as the International Shari'ah Research Academy for Islamic Finance (ISRA). The International Islamic Fiqh Academy, a subsidiary of the Organization of Islamic

Cooperation (OIC), is also included in this category because it recognizes the need for further research before forming an opinion, as stated in Resolution No. 237 (8/24), regarding electronic money [28].

2.5 Digital Asset Landscape

In general, cryptocurrencies are part of a blockchain technology system, which is a method for recording information that makes it impossible or difficult to alter, hack, or manipulate. The purpose of cryptocurrencies has evolved because of the existence of blockchain technology. According to the Central Bank of Malaysia [12], in the Financial Sector Blueprint 2022-2026 [12], on page 84, it discusses the new frontier of digital currencies. Payment landscapes in Malaysia have undergone transformation due to rapid technological innovation and increasing digitization. As the landscapes of payment service providers became more diverse, the users of digital payments also increased rapidly. Recently, digital currencies have caught people's attention. Tokenization and Distributed Ledger Technology (DLT) enable digital currencies to facilitate peer-to-peer (P2P) transfers without intermediaries (Table 1). Central banks are also conducting research on Central Bank Digital Currencies (CBDC), which are a new form of central bank money that represents direct liabilities of the central bank itself.

Table 1
Comparison of cryptocurrencies and CBDC [12]

	Issued by private entities		Issued by goverment
	Non-backed Digital Assets	Backed Digital Assets	Central Bank Digital Currencies (CBDC)
Criteria of currency	1. Exchange tokens: used as a means of exchange or for investment (e.g. Bitcoin, Ethereum) 2. Security tokens: may provide rights (e.g. ownership, repayment of a sum of money, or entitlement to future profits) 3. Utility tokens: can be redeemed for access to a specific product or service	1. Fiat-backed: value is backed by fiat currency (e.g. Tether) 2. Asset-backed: value is backed by assets such as commodities or crypto-assets (e.g. Dai) 3. Algorithm-based: value is supported by protocols that adjust supply in response to changes in demand (e.g. Terra)	1. Wholesale CBDC: issued to facilitate settlement between financial institutions 2. Retail CBDC: issued for use by the public (households and businesses) to facilitate day-to-day transactions
Store of value	No formal backing for its value i.e. subject to market demand	Value is backed by assets or is stabilized by controlling the market supply of the stablecoin	Value is backed by a sovereign body (e.g. Government, central bank)
Medium of exchange	It is unlikely to be a widely used payment method because of various limitations (e.g. price volatility).	It may be a payment method depending on how effective the value stabilization mechanism is.	It is a digital representation of fiat currency, so people are likely to use it as a means of payment.
Unit of account	Has its own unit of account	May be denominated in fiat currency (for stablecoin backed by fiat currency)	Denominated in fiat currency

3. Methodology

The methodology of this study involves a qualitative research design, using a library-based approach to analyze the mechanisms of cryptocurrency trading on Digital Asset Exchange (DAX) platforms in Malaysia, particularly from an Islamic perspective. Qualitative research is appropriate for this study, as it seeks to explore complex issues surrounding cryptocurrency within the framework of Islamic law. This requires an in-depth understanding of scholarly opinions, Islamic principles, and existing literature.

The data for this study is collected from secondary sources, including books, academic journals, magazines, websites, and other online resources. Books and academic journals provide foundational knowledge on cryptocurrency, Islamic finance, and Shariah compliance. Magazines and reports from reliable sources help track the evolution of cryptocurrency exchanges and their regulatory landscape in Malaysia. Websites, particularly those of regulatory bodies like the Securities Commission Malaysia, offer updated information on the registered DAX platforms and their operations. Additionally, fatwas issued by religious authorities such as the Selangor State Mufti Department and Federal Territories Mufti Office provide essential insights into Islamic legal opinions on cryptocurrency.

The study employs content analysis to systematically interpret the data, focusing on four key areas: the attributes of cryptocurrency exchanges and transactions in accordance with Islamic principles, the characteristics of cryptocurrencies such as Bitcoin and Ethereum, the regulatory frameworks surrounding digital assets in Malaysia, and the broader landscape of digital assets as speculative investments or legitimate stores of value. This method helps identify patterns, themes, and contradictions in the literature, particularly regarding the compatibility of cryptocurrency with Shariah law.

Islamic perspectives on cryptocurrency are compared by reviewing the views of various scholars on whether cryptocurrencies fulfill the role of money in Islamic finance or whether their speculative nature renders them non-compliant. Legal interpretations of Islamic jurisprudence, especially concerning usury (riba'), uncertainty (gharar), and gambling (maysir), are also examined to determine the permissibility of cryptocurrency transactions. Additionally, the study evaluates Malaysian regulatory frameworks to assess their impact on Shariah compliance for cryptocurrency exchanges.

The qualitative approach, using a library-based method and content analysis, is suitable for this study as it allows for an in-depth exploration of the subject matter. The reliance on diverse secondary sources ensures a comprehensive understanding of the relationship between cryptocurrency and Islamic finance, making this approach well-suited to addressing the research objectives.

4. Results and Discussion

In Islamic transactions, all buying and selling must adhere to the procedures stipulated by Sharia, such as the conditions and requirements of the contract. However, when a purchase involves ribawi items, special attention must be paid to avoid falling into the realm of usury. Ribawi items are mentioned in a hadith narrated by Ubadah Bin al-Samit R.A., which states: "*Gold for gold, silver for silver, wheat for wheat, barley for barley, dates for dates, salt for salt, like for like, equal for equal, and payment must be made hand to hand (immediate exchange). However, if the types and categories of goods differ, then sell as you wish, provided that the exchange is made hand to hand (on the spot)*" [37].

Items such as gold, silver, fiat money, metals, shells, and animal skins serve as a medium of exchange, a unit of account, and a store of value. People widely recognize them as forms of currency. However, currency is not required to have intrinsic value, like paper money [45]. The function of the medium of exchange is a significant aspect of currency. In addition to societal acceptance, an item can be recognized as currency if it receives government recognition [38,45]. Government involvement in matters related to currency is essential to ensure its stability and safe use in the economic market [11,31].

The default rule in Islamic transactions is that they are permissible, according to the principle on Islamic jurisprudence that "the default ruling for anything is permissibility" [33]. Engaging in transactions with cryptocurrencies is also subject to the ruling of permissibility because, according to some scholars, it exhibits the characteristics of a currency, such as being a unit of account, medium of exchange, and store of value [8,48,49]. Additionally, it is considered a usable asset (mal mutaqawwim).

Selangor State Mufti Department [30] believes that the characteristics of cryptocurrencies are in line with Sharia, but they set some guidelines to be followed before using cryptocurrencies, such as having a deep knowledge of cryptocurrencies, conducting transactions only on licensed digital currency platforms, and avoiding any non-compliant Sharia activities. However, Federal Territories Mufti Office [43] states that cryptocurrencies, particularly Bitcoin, are seen as investment assets. Thus, they are not considered currency from a Sharia perspective, but they do not negate the permissibility of Bitcoin as an investment asset; in other words, it is permissible to invest in Bitcoin.

Some scholars' views also prohibit the use of cryptocurrencies based on their involvement in activities related to illegal drug distribution in the black market, money laundering, terrorism, and so on [27,29,46]. However, illicit activities also occur in fiat currencies. Does this mean that fiat currency should be prohibited? It is not relevant to categorically declare cryptocurrencies as haram (prohibited) simply because a minority of criminals engages in criminal activities, but there is a need for regulatory measures to promote transparency and track criminal transactions, as they inherently store data perfectly.

4.1 The Legal Maxim of Fath al-Dhara'i in Sales Contracts

The legal maxim of *fath al-dhara'i* (opening the means to benefit) is relevant in the evolving context of contemporary sales contracts, particularly those involving digital assets and cryptocurrencies. In Islamic commercial jurisprudence (fiqh al-muʿāmalāt), the validity of a sales contract is contingent upon core requirements such as mutual consent (tarāḍī), a clearly defined subject matter (mabīʿ), lawful consideration (thaman), and the absence of prohibited elements, including riba (usury) and excessive gharar (uncertainty). However, as the financial ecosystem increasingly incorporates new transactional models, fath al-dhara'i serves as a guiding principle that permits legal accommodation of these innovations when they are deemed to fulfil public interest (maṣlaḥah). This principle aligns with the objectives of the Shariah (maqāṣid al-sharīʿah), allowing for adaptive interpretations of contract structures that promote economic justice, reduce harm, and enhance overall market efficiency.

A practical example of the application of *fath al-dhara'i* can be observed in cryptocurrency transactions on Digital Asset Exchange (DAX) platforms. These platforms facilitate spot trading, utilize blockchain-based verification, and ensure instantaneous transfer of ownership—mechanisms that diverge from classical contracts such as "*baiʿ al-sarf*" or "*baiʿ al-muqayyadah*". Nevertheless, when such contracts are free from elements of deception or speculation and conform to ethical trading principles, contemporary Shariah scholars may view them as permissible under the doctrine of *fath al-dhara'i*. This legal flexibility allows for the inclusion of innovative digital financial products within the Islamic legal framework, provided that regulatory safeguards are in place. Accordingly, *fath al-dhara'i* plays a pivotal role in facilitating the integration of Islamic legal principles with modern financial technology, thereby enabling Muslim participation in the digital economy without compromising Shariah compliance.

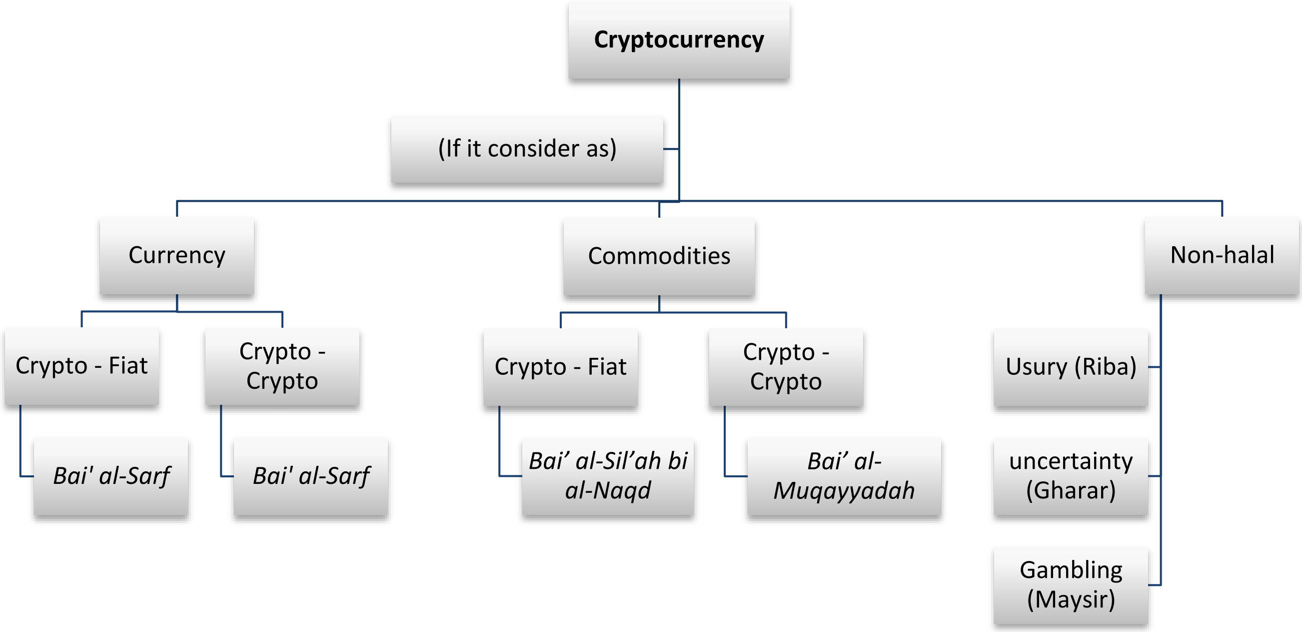

Fig. 1. Shariah perspective on transaction Cryptocurrency: functional classifications

Figure 1 show the classification of cryptocurrency from a Shariah-compliance perspective can be divided into three main categories: currency (halal), commodities (halal), and non-halal uses.

Firstly, cryptocurrency can be viewed as a currency, if it was recognized by BNM. In this context, it is treated similarly to fiat currency, with transactions categorized under “*Bai' al-Sarf*”, meaning currency exchange. This includes both crypto-fiat exchanges (where cryptocurrency is exchanged for fiat currency) and crypto-crypto exchanges (where one cryptocurrency is exchanged for another).

Secondly, cryptocurrency can be seen as a commodity. When treated as a commodity, cryptocurrency transactions fall under different classifications with specific rules. A crypto-fiat exchange is considered a “*Bai’ al-Sil’ah bi al-Naqd*” (sale of goods with immediate payment) and has its own set of Shariah guidelines. Similarly, crypto-crypto exchanges as commodities are categorized under “*Bai’ al-Muqayyadah*” (barter), which involves conditions that must be met to ensure Shariah compliance.

Lastly, cryptocurrency transactions can be classified as non-halal if they involve prohibited elements under Islamic law. This includes transactions with interest (riba), which are not permissible; excessive uncertainty (gharar), where transactions involve speculative risks; and gambling (maysir), where the nature of the transaction resembles gambling or highly speculative behavior. Transactions involving any of these elements would render the use of cryptocurrency non-halal.

In summary, cryptocurrency can be permissible under Shariah law when it is treated as either a currency or a commodity, provided that the transactions follow specific guidelines. However, if cryptocurrency is associated with elements like riba, gharar, or maysir, it is considered non-halal and impermissible in Islamic finance.

4.2 Viewpoint 1: Cryptocurrency if Considered Permissible if Defined as a Currency (Al-Sarf)

The first viewpoint is based on the consensus of scholars who consider cryptocurrencies permissible as a form of currency. This perspective has been grounded in several arguments.

i. Cryptocurrencies are considered valid for transactions because of the trust established among transacting parties, even if they are not issued by a central authority [26,42].
ii. The unstable nature of cryptocurrencies does not invalidate their thamaniyyah (being a store of value), much like traditional fiat currencies and stocks that experience fluctuations [9].
iii. The process of cryptocurrency production, known as mining, entails the use of computer software to solve mathematical problems; it does not affect the determination of the Sharia law [10,51].
iv. Criminal activities are not solely linked to cryptocurrencies; they occur broadly in various financial systems [43].
v. Cryptocurrency volatility does not influence the legal status. Traditional currencies, such as gold, also face the risk of fluctuations [21,43].
vi. Cryptocurrencies, particularly Bitcoin, are viewed as a means of storing value and protecting against inflation [51].
vii. Engaging in transactions with cryptocurrencies is generally considered permissible because of their recognition as digital assets and, for some, as a form of currency [43,51].
viii. Individuals are encouraged to acquire knowledge of how to use cryptocurrencies effectively (Zaharuddin 2017).
ix. A form of currency is anything that society agrees to use as a means of exchange. This view aligns with the legal judgment on the riba, based on the hadith of Ubadah bin Somit.
x. Cryptocurrency as a legal cryptocurrencies are non-legal payment methods in Malaysia.

This viewpoint supports the permissibility of using cryptocurrencies in various transactions by considering trust, value, and their role as a store of value.

Figure 2 illustrates that cryptocurrency, when exchanged with fiat currency, is referred to as Bai' al-Sarf, which means both are considered a currency exchange. In this context, the transaction involves the exchange of two valid currencies - cryptocurrency and fiat currency - and it must adhere to specific Shariah rules regarding currency exchange (sarf), including the requirement that the exchange be conducted immediately without any delay. However, it should be noted that there is currently no official statement from Bank Negara Malaysia (BNM) recognizing cryptocurrency as legal tender. The Quran does not provide an in-depth explanation of the concept of *al-ṣarf*; instead, it briefly touches upon the concept of permissible commercial transactions approved by Allah s.w.t. In accordance with Islamic law, transactions must be free from the element of riba, as stated in Surah Al-Baqarah, verse 275: "Allah has permitted trade and has forbidden interest."

In general, this verse explains that Allah s.w.t. permits all transactions involving buying and selling while prohibiting transactions that involve elements of riba. The prohibited types of riba are *ribā al-nasī'ah* and *ribā al-faḍl*. Any transaction involving the riba is considered invalid and is condemned by Allah s.w.t. Transactions permitted by Allah s.w.t. also encompass *al-ṣarf*, which must adhere to the established regulations. The concept of *al-ṣarf* is subsequently detailed in the Hadiths of the Prophet Muhammad s.a.w., including its pillars, conditions, and relevant situations.

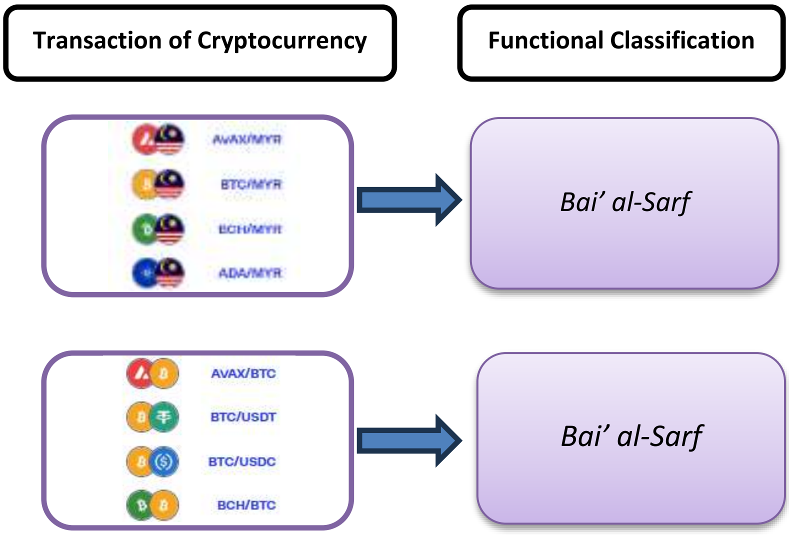

Fig. 2. Shariah perspective if crypto was currency (al-sarf) on transaction of cryptocurrency: functional classifications

The Hadiths provide a more detailed explanation of the concept of al-ṣarf, particularly concerning riba in currency exchange, as not all rules are elaborated upon in the Quran. The Prophet Muhammad (s.a.w.) offers explanations and interpretations of rules that are implicitly mentioned in the Quran and are generally concise in nature. These Hadiths, from 'Ubadah Bin al-Samit (R.A.), discuss aspects related to al-ṣarf, stating:

"*Gold for gold, silver for silver, wheat for wheat, barley for barley, dates for dates, salt for salt, like for like, equal for equal, and payment must be made hand to hand (immediate exchange). However, if the types and categories of goods differ, then sell as you wish, provided that the exchange is made hand to hand (on the spot)*" [40].

There are several terms of *al-sarf* that have been stated in *the al-bai* term. In addition, there are terms *of al-ṣarf* taken from hadith related to gold and silver.

i. Quantity (*tamāthul*) for Kind Exchange
Prophet Muhammad s.a.w. explained that the exchange of gold for gold or silver for silver must be carried out in an equal quantity or *tamāthul*, and it should not exceed the quantity at the time of the exchange. This indicates that every exchange of similar ribawi commodities must adhere to the requirements of *tamāthul* in terms of quantity. Al-Buhūṭī elaborated on the concept of *tamāthul* from a Sharia perspective, encompassing equality in measurement and weight. *Tamāthul* in ribawi goods is measured by volume, whereas tamāthul in ribawi goods is measured by weight. Therefore, selling one piece of gold to two pieces of gold is not permitted because it involves the element of riba al-faḍl in the exchange, which is forbidden. According to Rahman *et al.,* [45], *tafāḍul* is only allowed in the exchange of dissimilar ribawi goods, such as gold for silver. Tafāḍul is permissible only in transactions involving different types of ribawi goods, such as exchanging gold for silver. 'Uthmān Ibn 'Affān r.a. narrated that the Prophet Muhammad s.a.w. said: "*Do not exchange one dinar for two dinars and do not exchange one dirham for two dirhams*" [39].

ii. *Qabḍ* before parting
Every exchange of ribawi commodities, whether of the same or different types, must be conducted through *qabḍ* within the sales transaction. Both the seller and buyer are required to perform *qabḍ* by exchanging both currencies before parting. This matter has been elucidated in the hadith of Ubādah Ibn al-Ṣāmit concerning the necessity of *qabḍ* during the contractual agreement between buying and selling [45].

iii. Cannot be delayed
The exchange in *al-ṣarf* transactions cannot be delayed because it lacks the necessary qabḍ, which is a requirement in *al-ṣarf*. Delayed transactions render the *al-ṣarf* contract invalid due to the inclusion of the riba. A hadith narrated by Abū Sa'īd al-Khudrī conveys that the Prophet Muhammad s.a.w. said: "*Do not exchange gold for gold except in equal quantity, and do not exchange in a quantity more than that. Do not exchange silver for silver except in equal quantities, and do not exchange in a quantity greater than that. Do not exchange something present for something absent.*"

iv. No option for conditions (*Khiyār syarṭ*)
Khiyār syarṭ refers to the right granted to one or both parties involved in a contract to either proceed with or cancel the signed agreement if the *khiyār* condition is stipulated in the contract. For example, if a seller states to the buyer, "I am selling this item to you, and you have the right to make a decision within three days," it means that the buyer has a three-day period to decide whether to continue with the agreement or to cancel it. In the context of exchanging the subject matter of an *al-ṣarf* contract, a delay is not permissible as it may result in the presence of *ribā al-nasī'ah*. The use of *khiyār syarṭ* is not allowed in *al-ṣarf*, because it disrupts ownership in commercial transactions. This means that the seller and the buyer are considered to have ownership rights over the subject matter when the *khiyār* condition period expires. The use of *khiyār syarṭ* in *al-ṣarf* will lead to the separation of the seller and the buyer before the *taqābuḍ* (exchange) takes place because both parties have the right to cancel the sales agreement that has been made.

4.3 Viewpoint 2: Cryptocurrency if Considered Permissible if Defined as Commodities (Al-Naqd)

The second viewpoint concludes that justifying cryptocurrencies as commodities or assets is based on several primary principles, including:

i. Cryptocurrencies do not fulfil the essential criteria of being considered currencies, especially in terms of not meeting the legal tender requirements established by national laws. Therefore, without government backing, cryptocurrencies are not considered assets that can be utilized (mal mutaqawwim) [17,26].
ii. The absence of a backing authority is a significant factor in not mandating transactions involving cryptocurrencies to safeguard the public's interests [37].
iii. Cryptocurrencies are known for their volatile value, making them unsuitable as reliable value stores [14].
iv. The lack of knowledge about cryptocurrency usage is viewed as an obstacle, and individuals are prompted to learn about their appropriate use [43].

v. Bank Negara Malaysia (BNM) and the Securities Commission (SC) do not recognize cryptocurrency as legal tender in Malaysia, but it can still be traded and used as an investment asset under SC guidelines [46].

According to this viewpoint, cryptocurrencies may not meet the required criteria to be accepted as a medium of exchange, and their volatile characteristics and lack of support could pose difficulties for their acceptance.

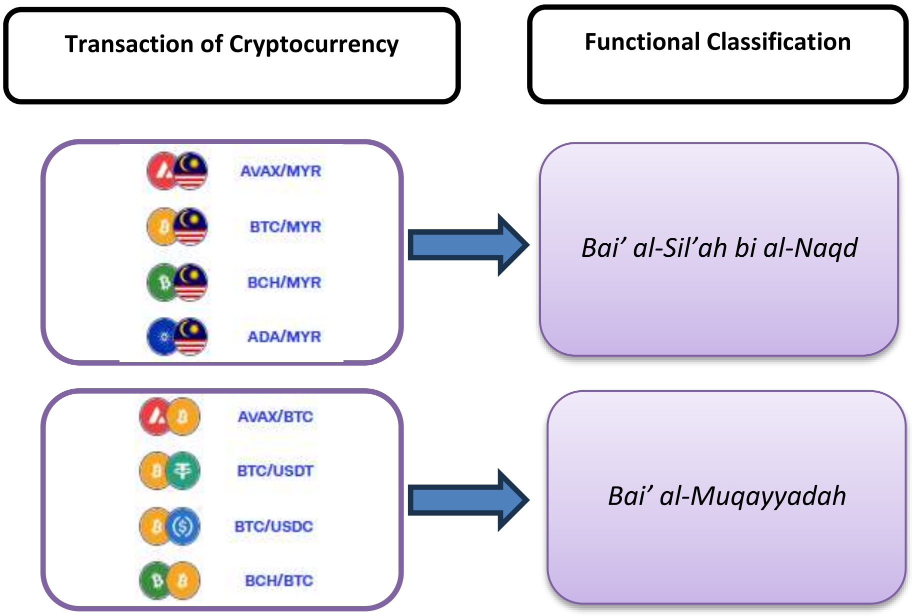

Fig. 3. Shariah perspective if crypto was commodity (al-naqd) on transaction of cryptocurrency: functional classifications

Figure 3 illustrates that cryptocurrency, when exchanged with fiat currency, is referred to as "*bai' al-sil'ah bi al-naqd*", which means exchange of items for currency through purchasing and selling; this will be referred to as Viewpoint 2A. On the other hand, when exchanged with another cryptocurrency, it is referred to as "*bai' al-muqayyadah*", which means considered as barter; this will be referred to as Viewpoint 2B.

4.3.1 Viewpoint 2A - Bai' al-Sil'ah bi al-Naqd

Bai' al-Sil'ah bi al-Naqd is most commonly implemented among people. For instance is buying a phone with Malaysian Ringgit or US Dollars, among other currencies. This commerce conforms to the essential tenets of Sharia law, which emphasizes transparency and resolution of transactions without the inclusion of interest or excessive ambiguity (gharar).

Allah prohibits Muslims from acquiring wealth through illicit means such as theft, fraud, extortion, or any other techniques that have not been approved by Allah. Conversely, Allah allows for business activities or transactions that are carried out with the agreement and advantage of all parties involved. llah states in Surah Al-Baqarah, verse 275, "Allah has permitted trade...". In Islam, the act of buying and selling is deemed halal (permissible), as long as it adheres to all the fundamental pillars and conditions linked to these principles. In another Hadith narrated by Imam Muslim; "Prophet Muhammad (SAW) prohibited transactions involving casting pebbles and transactions with excessive uncertainty (gharar)."

4.3.2 Viewpoint 2B - Bai’ al-Muqayyadah

Islam has regulations governing the conduct and interactions of individuals during the execution of economic activities, collectively known as muamalah. Muamalah encompasses a set of rules prescribed by Allah to regulate human relationships. For example, concerning the issue of wealth ownership, Islam does not restrict the amount of wealth ownership, including profits from buying and selling transactions. However, what is constrained in Islam is how owners acquire and utilize their wealth, aligning it with the principles of Sharia. This is because Sharia functions as an ethical framework for Muslims to conduct their daily economic activities. The barter system, or *bai’ al-muqayyadah* is a trading system in which goods are exchanged. The exchange of goods should be aligned with the needs and benefits of each party involved. This exchange should be voluntary, without coercion from any party, as stated in the Quran in Surah An-Nisa verse 29: "O believers! Do not devour one another’s wealth illegally, but rather trade by mutual consent...”.

Overall, by incorporating the fundamental elements of buying and selling, cryptocurrencies comply with all the prescribed requirements of these fundamental elements, as described in viewpoint 1. Buying and selling gold and silver with different measurements is permissible, but if it involves similar items (such as silver and silver), similar to cryptocurrencies, it is not allowed if it is Bitcoin with Bitcoin. However, it is permissible to exchange Bitcoin with Ethereum or Bitcoin with Malaysian Ringgit. However, it is impossible to categorize it as a commodity (al-naqd) because it possesses an exchange value, as stated in viewpoint 2. However, the criteria for commodities can potentially be applied to NFTs and several token assets. The basic components of cryptocurrency transactions are aligned with the prerequisites of bai and the conditions of al-sarf itself.

This principle elucidates the primary functions of money as a measure of value, medium of exchange, and store of value. Money is not limited solely to gold and silver; it can also encompass items that are accepted and recognized by society. The versatility of money renders it a daruriyyah (necessity). Hence, currency exchange practices are permitted by scholars. However, the execution of currency exchange must adhere to the Sharia principles. Bai’ al-Sarf contracts can only be employed in currency transactions through licensed institutions authorized by Bank Negara Malaysia. This approach ensures that maslahah (benefit) is achieved and mafsadah (harm) is mitigated, thereby upholding the maqasid (objectives) of Sharia.

4.4 Viewpoint 3: Cryptocurrency if Transactions involving Non-Halal Elements

The third viewpoint states that cryptocurrency is prohibited and should not be treated as a currency or commodity for the following reasons:

i. Cryptocurrency mining is seen as having elements of gambling and is considered a high-risk form of investment that could result in substantial losses for investors. Furthermore, cryptocurrency investors are not provided with any form of compensation for such losses [22].
ii. Cryptocurrencies are associated with activities that involve crime such as drug trafficking, money laundering, and terrorism. These connections to illicit activities make cryptocurrencies non-compliant with Sharia law [17].
iii. Cryptocurrency, such as Bitcoin is unstable because high volatility and classified as uncertainty [2].
iv. Anonymous on cryptocurrency in every transaction and purchase is difficult to track the real account holder [7].

According to this perspective, ethical concerns related to cryptocurrencies, including their potential association with criminal activities and the risk involved in cryptocurrency mining, make them non-compliant with Sharia law.

5. Conclusions

In conclusion, this study examined the potential role of DAX (Digital Asset Exchange) in Islamic transactions, also known as muamalah. The findings suggest that DAX could significantly facilitate Islamic financial transactions, making them more accessible and efficient. Among Islamic scholars, there are varying perspectives on cryptocurrency. Some express concerns due to its volatility and lack of physical form, while others consider it a legitimate digital asset suitable for financial transactions. Despite these differing views, cryptocurrency does meet Islam's criteria for a currency: it serves as a medium of exchange, a measure of value, and a store of value—fundamental functions of money in Islamic finance. The study also highlighted that although cryptocurrency satisfies these criteria, it is not legally recognized as currency by the Malaysian government, presenting a considerable obstacle to its broader acceptance and use in Malaysia. Nevertheless, the study concludes that cryptocurrency, even without legal status as currency, can still be traded as a digital asset in Malaysia, potentially creating investment opportunities and supporting the growth of the Malaysian digital economy. Furthermore, this study supports the application of the legal maxim fath al-dhara'i, which allows for permissibility when a transaction leads to public benefit (maslahah) and does not contradict the fundamental tenets of Islamic law.

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