



CRYPTO ASSETS: THE NEED FOR SHARIAH SCREENING CRITERIA FOR DIGITAL ASSETS IN MALAYSIA

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ABSTRACT

In recent years, the rise of crypto assets, particularly with the prominence of Bitcoin, has garnered substantial attention from investors, governmental bodies, and analysts. Digital tokens, a subset of crypto assets, have gained considerable traction as fundraising instruments through Initial Coin Offerings (ICOs), presenting a novel means of capital acquisition exempt from government or international regulation. Despite their popularity, there exists a lack of comprehensive understanding and regulatory frameworks for digital tokens, especially from a Shariah perspective. This study undertakes an exploratory approach to address the necessity of establishing Shariah screening criteria for digital assets, focusing on the Malaysian context. The study crafts a framework to guide Muslim investors in engaging with halal digital tokens by employing qualitative research methods, including unstructured interviews with experts and textual analysis of primary and secondary sources. The qualitative methodology ensures an in-depth exploration of this multifaceted subject, bridging the domains of finance and technology. The study's findings offer insights into the demand for a Shariah-compliant approach to digital tokens, with a particular emphasis on creating a framework for Initial Exchange Offerings (IEOs). This research is anticipated to contribute to the understanding of Shariah compliance for crypto assets in Malaysia, offering a valuable guide for Muslims seeking to navigate the digital asset landscape in alignment with their religious principles.

Keywords: Crypto Assets; Islamic Principles; Shariah Compliance; Shariah Screening Criteria

Submitted: 13/8/2023

Accepted: 18/9/2023

Published: 11/10/2023





INTRODUCTION

In recent years, crypto assets have garnered substantial attention from investors, governmental bodies, and analysts, primarily due to the significant surge in Bitcoin's value. According to the Financial Stability Board (2018), the value of crypto assets had reached \$830 billion by January 2018. As of 29 August 2023, the global cryptocurrency market cap has escalated to \$1.09 trillion (Forbes, 2023). It is important to note that individual cryptocurrency values vary, with Bitcoin (BTC) priced at \$26.00K, Ethereum (ETH) at \$1.65K, Tether (USDT) at \$1.00, and Binance Coin (BNB) at \$217.60 (Forbes, 2023).

Among the various crypto asset types, digital tokens have emerged as a powerful instrument for raising funds through Initial Coin Offerings (ICOs), bypassing government regulations. Notably, credible sources such as Coin Insider report that the top ten ICOs have collectively secured funds ranging from \$100 to \$300 million each. Noteworthy projects like Dragon Coins and Hdac have raised \$320 million and \$258 million, respectively (Coin Insider, 2022).

While digital tokens have witnessed significant demand, Malaysian citizens seem to be relatively less engaged with ICOs (The Star, 2019). Data indicates that while 80% of Malaysians are familiar with cryptocurrencies, only 40% possess a sound understanding of ICOs (The Edge Markets, 2019). Bank Negara Malaysia (2019) reports that 4 out of 5 Malaysians are cryptocurrency-aware, with 30% owning digital assets and 16% investing in one or more ICOs. Despite being a global trend, ICOs in Malaysia have yet to receive legal authorisation from the Securities Commission Malaysia (SC), the regulatory authority responsible for capital market development. Delays in finalising guidelines have contributed to this regulatory ambiguity (New Straits Times, 2019).

In response to these challenges, the Securities Commission Malaysia introduced the Guidelines on Digital Assets in January 2020, adhering to section 377 of the Capital Markets and Services Act 2007 (CMSA). While the guidelines discourage ICOs and advocate Initial Exchange Offerings (IEOs) with operator involvement for safety reasons, an official Shariah screening framework for IEOs has not been established by the government. Consequently, the author of this paper aims to address this gap by proposing a Shariah-based approach.

Despite the issuance protocol for digital tokens being defined by the Securities Commission Malaysia, the lack of a Shariah framework remains a significant concern for Muslim investors, who constitute 63.5% of the population (Census, 2020). To bridge this gap, the author proposes a filtering mechanism to facilitate investments in Shariah-compliant digital tokens. This mechanism entails Shariah screening for the issuer, the project or underlying business, and the operator of the Initial Exchange Offering.

The Islamic financial industry is increasingly paying attention to financial technology (fintech) and information technology (Muneeza & Mustapha, 2019). The core objective of this research is to create a comprehensive Shariah screening framework for digital tokens, ultimately establishing a robust benchmark for halal Initial Exchange Offerings. This framework aims to provide clear guidance to Muslim investors and other stakeholders, ensuring an ethical and compliant approach to digital token investments. The structure of this research paper comprises five sections, beginning with the introduction. Subsequently, Section Two presents the literature review, while Section Three delves into the research methodology. Section four elaborates on the paper's findings, followed by the conclusion and recommendations in Section five.





LITERATURE REVIEW

Classification of Crypto Assets

The terminology applied to describe crypto assets is multifaceted. KPMG's perspective characterises crypto assets as digital units of account utilising cryptographic methods to safeguard unit transfers within the blockchain system (KPMG, 2018). The Financial Stability Board (2018) employs the term "crypto assets" as a broad descriptor for private assets integrating cryptography and distributed ledger technology in their creation and value distribution processes. The Financial Conduct Authority (FCA), on the other hand, employs the term "token" to emphasise the operational aspect of various crypto assets. According to the FCA, crypto assets represent digitally secure representations of value that can be electronically transmitted, stored, and exchanged using Distributed Ledger Technology (DLT) (Financial Conduct Authority, 2019). To provide further clarity, the FCA categorises crypto assets into three distinct types:

a) Exchange Tokens

Exchange tokens are tools crafted and intended for exchange activities, lacking the backing of any central authority. They serve as mediums for purchasing or vending goods and services without traditional intermediaries and are commonly recognised as cryptocurrencies.

b) Security Tokens

Security tokens possess specific attributes qualifying them as investment instruments, functioning either as equity or debt securities within an investment framework.

c) Utility Tokens

Utility tokens are not designated as investment instruments, yet under certain conditions, they exhibit characteristics that align with the definition of e-money.

In addition, the Malaysian government, represented by the Securities Commission Malaysia (2019), presents an alternate classification of crypto assets, categorising them into two distinct classes: Firstly, digital currency pertains to valuable digital representations employing cryptography for transactional purposes and being convertible with conventional currency. Secondly, digital tokens encompass digital representations recorded through cryptography within distributed ledger technology.

Technology Used and Its Mechanism

Distributed Ledger Technology

According to FCA (2018), the framework of crypto assets operates on the foundation of distributed ledger technology. This technology facilitates the secure and synchronised dissemination of the latest information among participants. Over time, this system has undergone continuous enhancement since its initial implementation in the Bitcoin platform. Consequently, the contemporary landscape often features a hybrid approach that combines elements of both centralised and decentralised ledgers. This amalgamation has become more prevalent than the previous paradigm, which revolved around either an entirely centralised or purely distributed system.



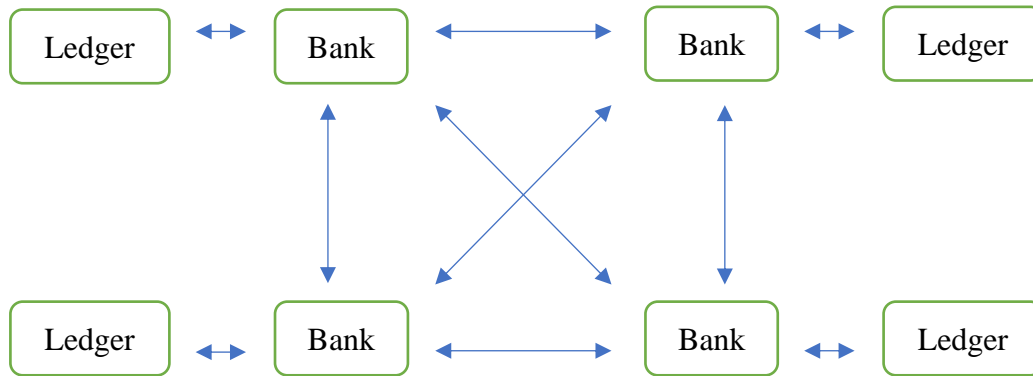


Figure 1: Distributed ledgers, Source: FCA (2018)

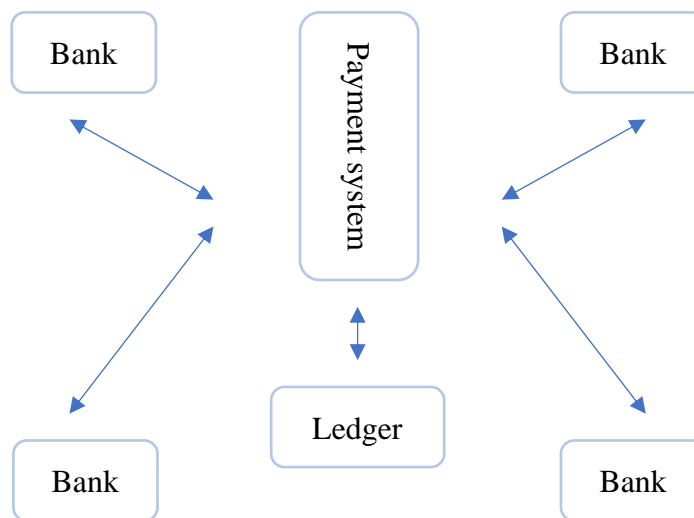


Figure 2: Centralised ledgers, Source: FCA (2018)

Figures 1 and 2 compare information distribution across participants in the two different networks.





Market Structure of Cry_

Figure 3 below depicts the entire crypto assets operation. The scheme also contains the risk exposure, which is distinctive in every scope.

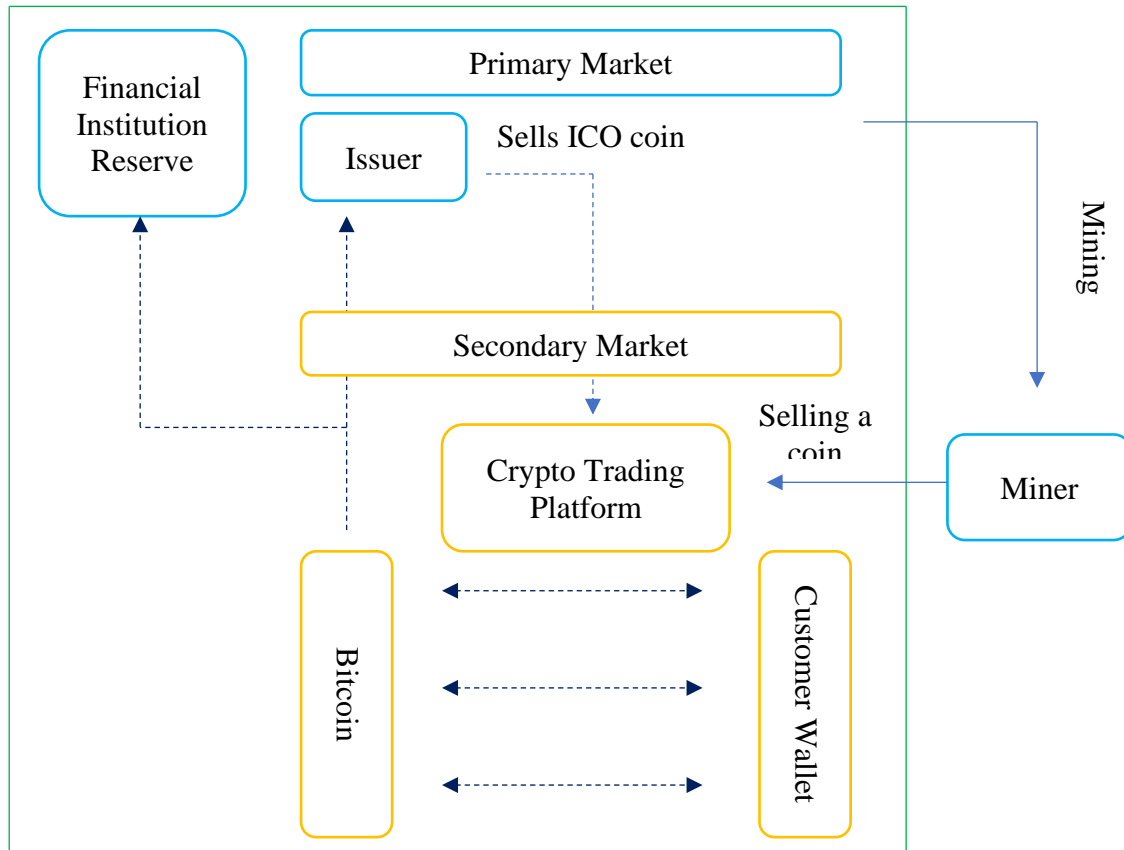


Figure 3: Crypto assets market structure, Source: IMF (2019)

Figure 3 illustrates the primary and secondary market dynamics in crypto-asset transactions. In the initial stage, when the issuer introduces the coin in the primary market, they are confronted with unauthorised activity, often referred to as mining, by third parties seeking to acquire tokens illegitimately. These acquired tokens are then subsequently sold in the secondary market. Moving to the second stage, which involves regular transactions, the trading of coins involves buyers and sellers. However, as more participants join the network, an escalation in risks becomes evident, ranging from operational and cyber risks to the risk of commingling.

As the primary and secondary markets operate as a comprehensive structure in the subsequent stage, new challenges arise. These challenges manifest in the form of market integrity concerns, potential project defaults, instances of miss-selling, and fraudulent activities. Another issue stemming from the entire process is the management of asset liquidity, particularly when issuers face bankruptcy and regulations mandating the liquidation of tokens are absent. In such cases, investors find themselves in a precarious position, facing difficulties in withdrawing their assets.

Potentiality and Risk Exposure





Crypto assets offer several potential economic benefits, as highlighted by the Financial Conduct Authority (2018). Firstly, they enable greater efficiency in international trade by reducing the need for intermediaries through the implementation of smart contracts. These contracts result in lower costs, faster transaction times, and enhanced transparency. Secondly, crypto assets introduce new and expansive investment opportunities, with Bitcoin being a prime example of a widely adopted cryptocurrency. Lastly, these assets can serve as a means to raise fresh capital for projects via Initial Coin Offerings (ICOs).

However, beneath the seemingly flawless distributed ledger system, certain risks warrant consideration by governments and regulatory bodies. Firstly, there is the risk of financial crimes, including money laundering and potential funding of terrorism. This risk arises due to the inherent ability of cryptography to facilitate anonymous transactions across global digital platforms. Secondly, consumer protection remains uncertain, as investors face risks, and a significant proportion of crypto assets available in the market are of dubious origin. Lastly, concerns arise regarding ICOs and their associated whitepapers, which can often fall beyond the purview of regulatory jurisdictions. The absence of mandated disclosure information can lead to increased fraudulent risks (Florysiak & Schandlbauer, 2018).

Regulatory Frameworks

International Regulatory Frameworks

Various international organisations, including the Basel Committee on Banking Supervision (BCBS), Committee for Payments and Market Infrastructures (CPMI), International Organization of Securities Commissions (IOSCO), Financial Action Task Force (FATF), the Organisation for Economic Co-operation and Development (OECD), and the Financial Stability Board (FSB), have taken on a global role to establish comprehensive regulations in the absence of international consensus. This collective effort addresses the challenges posed by the global nature of crypto assets. These organisations have focused their attention on key issues related to crypto assets, including safeguarding investor rights, ensuring market accountability, enhancing payment system security, and supervising financial stability (Financial Stability Board, 2019).

At the domestic level, the International Monetary Fund (IMF) highlighted that security bodies and standard-setting regulators play a crucial role in establishing regulations for crypto assets. The Financial Task Force, for instance, updated its regulations in 2018 to encompass a broader range of digital assets. However, the lack of international consensus has led to varying regulatory standards among different regulatory bodies. Some countries have issued warnings, as seen by the US Securities and Exchange Commission (SEC) and the UK's Financial Conduct Authority (FCA). Others have outright banned crypto assets, such as Algeria, Bahrain, and Bangladesh. Meanwhile, certain countries have opted for a more adaptable approach by incorporating crypto assets within existing regulatory frameworks, as observed in Thailand and Indonesia.

Malaysian Regulatory Framework

The financial industry in Malaysia is overseen by two distinct entities: Bank Negara Malaysia (BNM) and the Securities Commission Malaysia (SC). BNM governs both conventional and Islamic banking sectors, the insurance and takaful sector, as well as money services and fintech





related to these services. On the other hand, SC is responsible for regulating and structuring the capital market industry (Kunhibava & Muneeza, 2019).

During the initial phases of regulatory development in 2016, the Securities Commission Malaysia granted approval to various equity crowdfunding companies, including Ata Plus, Crowdonomic, FundedByMe, Eureeeca, pitchIN, and Crowdplus. Additionally, fintech ventures exploring the peer-to-peer (P2P) lending segment emerged, such as Ethis Kapital, FundedByMe Malaysia, B2B FinPAL, Modalku Ventures, managePay Service, and Peoplender.

Throughout 2017, SC executed various initiatives. This included the introduction of the digital Investment Manager framework in May, entering into agreements with Australia in June, and further agreements with Dubai, Singapore, and Hong Kong in September. The commission published trading procedure guidelines for the secondary market in November and designed alternatives for trading platforms in December (Mohamed & Ali, 2019).

In January 2019, under the directive of the Malaysian Minister of Finance, the SC was tasked with releasing a document concerning crypto assets. The SC classified digital assets into digital currency and digital tokens, as governed by the Capital Markets and Services Act 2007. The Act specifies that digital currency and tokens are distinct from shares (Securities Commission Malaysia, 2019). Subsequently, in March 2019, the SC formulated a blueprint for Initial Coin Offerings (ICOs) and released it for public feedback. The blueprint emphasised the need for disclosure and transparency of information for ICOs approved by the SC (Library of Congress, 2019).

In a regulatory update on 15 January 2020, the SC announced that individuals are prohibited from conducting Initial Coin Offerings. Instead, all ICOs are required to be initiated by an operator, which must be a registered entity operating in Malaysia's digital asset exchange (DAX), conducted through Initial Exchange Offerings (IEOs). Additionally, the SC clarified that any potential losses incurred in this new form of capital raising would not be guaranteed by the central bank, as these assets are not recognised as legal tender or a method of payment (Securities Commission Malaysia, 2020).

Shariah Principles in Islamic Finance

The Shariah framework for the digital token proposed conforms to the principles of Islamic finance. According to Hanif (2016), the basic principles of Islamic finance are explained as follows:

- a) The business or project must be permitted (Halal). Ulema (Jurists) classified as the kind of business that Muslims have to avoid are businesses related to alcohol, pork, prostitution, gambling, etc. These are prohibited in Islam; thus, any generated income from these industries is not permitted.
- b) The main concern of Islam is to prohibit Riba or interest in the financial agreement. It is stated in the primary source of the Quran, in chapter and verse 30:39, 4:161, 3:130, 2:275-281, and Sunnah. The philosophy of avoiding Riba in Islamic financial principles is that money is only a means of financial transaction, not a way of production.
- c) Another basic rule in Islamic finance is to prevent *gharar* or uncertainty when conducting a trade. In general, Ayub (2007) pointed out that *gharar* is an undetermined liability, an uncertain item of payment, and an ambiguous transfer of goods and services of parties involved in the transaction.
- d) The last primary value in Islamic financial affairs is the prohibition of *myser* or gambling. Ayub (2007) defined *myser* as a way of obtaining wealth easily by chance,





either by seizing other's rights or not. *Myser* is clearly stated in the Quran in chapter and verse 2:219 and 5:90 as unlawful wealth acquisition.

METHODOLOGY

The research methodology adopted for this study is qualitative research, employing unstructured interviews and textual analysis as its core components. This methodological approach was intentionally chosen to facilitate a profound exploration of the intricate subject matter - the sharia screening of halal digital tokens - within the dynamic intersections of the financial and technological realms.

The qualitative methodology employed unstructured interviews as the primary data collection technique, enabling an in-depth engagement with a select panel of experts. These experts were strategically chosen based on their specialised knowledge and affiliations in relevant fields, enhancing the validity and comprehensiveness of the study's findings. The experts who were interviewed and their corresponding affiliations and expertise are presented in Table 1 below:

Table 1: The List of Experts Interviewed

No.	Expert	Affiliation	Expertise
1	Dr. Moutaz Abojeib	ISRA Researcher	Fintech Research
2	Asst. Prof. Dr. Ziyaad Mahomed	INCEIF, sits in various Shariah Advisory Bodies	Shariah Expertise, Technology Domain
3	Prof. Dr. Ashraf Bin Md. Hashim	ISRA Consultancy, sits in various Shariah Advisory Bodies	Shariah Advisory, Islamic Finance
4	Dr. Mohammad Mahbubi Ali	International Institute of Advanced Islamic Studies (IAIS), sits in various Shariah Advisory Bodies	Shariah Advisory, Islamic Finance
5	Dr. Sherin Binti Kunhibava	University of Malaya	Legal Expertise and Academician
6	Asst. Prof. Dr. Anwar Hasan Abdullah Othman	IIUM Institute of Islamic Banking & Finance (IiBF)	Islamic Banking & Finance
7	Asst. Prof. Dr. Rizal Mohd. Nor	IIUM	Technology, Computer Science

The interview sessions involved a qualitative engagement with these experts, allowing for a free-flowing exchange of ideas, insights, and perspectives related to sharia screening in halal digital tokens. The unstructured nature of the interviews encouraged open-ended discussions and the exploration of nuanced viewpoints, enriching the study with diverse and multifaceted insights.

Furthermore, a textual analysis was conducted through thorough desktop research to complement the insights gained from the interview sessions. This approach facilitated the alignment of the findings from the interviews with existing literature and research, thereby contributing to a comprehensive understanding of the research topic.

Apart from the primary sources in the form of unstructured interviews, other primary sources referred to in the study included relevant laws and regulations on the subject matter. Secondary sources, on the other hand, encompassed a range of scholarly literature, including academic journals, research articles, and related publications. This comprehensive approach, combining primary insights from experts and secondary sources from the legal and scholarly





domains, aimed to provide a holistic perspective on sharia screening in halal digital tokens within the evolving landscape of finance and technology.

FINDINGS

Shariah View on The Digital Token

The Features of Digital Tokens Classified by Securities Commission Malaysia

Based on the regulation Capital Markets and Digital Currency and Digital Token Order 2019, the Minister of Finance of Malaysia described the digital token as a representative of a privilege right to those subscribing as the purpose of issuing the token, the consequence, and the facilities provided. The points below are several features of the digital token:

Table 2: Features of Digital Token

Characteristic	Digital token
Asset-backed	Yes
Ownership	Yes
Unit of account	Yes
Medium of exchange	Yes (Limited)
Return	Yes
Trading/withdrawal	Yes
Security	Yes
Launched by Government	No
Legal tender status	No

Source: Securities Commission Malaysia (2020)

Table 2 summarises digital token features extracted from the regulation published under the Minister of Finance Malaysia that was effectively operated on 15 January 2019.

Shariah View on The Features

Digital Tokens as Digital Currency

In both economic theory and the perspective of Shyakh Taqi Usmani, a currency must fulfil key functions, including serving as a medium of exchange, a unit of account, and a store of value (Habib and Adekunle, 2019; Izhar and Gundogdu, 2019). Furthermore, the Islamic viewpoints of scholars such as Imam al-Ghazali and Ibn Taymiyyah emphasise that money should not be sought for its intrinsic value but rather as a medium of exchange (Zulkhibri, 2019).





Interestingly, the attributes of digital tokens, as defined by the Securities Commission Malaysia (SC), align with the functions of traditional currency. These digital tokens can function as a medium of exchange, enabling conversion into fiat money, and they also serve as a unit of account. These qualities are analogous to those of established currency. Additionally, when a digital token is backed by an asset or a business, its classification as a digital currency is further reinforced. Consequently, the question arises as to whether a digital token can effectively function as a digital currency or not.

There are several factors that distinguish the asset represented by a digital token from traditional commodities. Firstly, the asset underlying a digital token often pertains to an ongoing project or business, introducing a level of risk that could potentially lead to failure. This risk, in turn, contributes to market uncertainty and high volatility. Shariah principles emphasise the importance of stability for the common good (Maslahah), making this volatility problematic.

Secondly, the digital token lacks the status of being minted by the government (wali amr) and is not considered a legal tender. This status is a fundamental requirement for currency and holds significance from a Shariah perspective.

Lastly, the utility of a digital token is typically restricted to a specific company or entity carrying specific rights and responsibilities. This limited scope is incompatible with the broader usage expected of a national currency.

Considering these three arguments, it becomes evident that the digital token does not fulfil the criteria of a digital currency. As such, the classification of a digital token is valid and distinct from that of a digital currency.

Digital Token as Wealth (Mal)

According to the Securities Industry Act 1991, a "security" means:

"debenture, note, stock and share in a public company or corporation, or bond of any government or anybody, corporate or unincorporated, and includes any right or option in respect thereof, any interest as defined in section 84 of the Companies Act 1965 and any interest in a unit trust scheme;

Due to the similarity of digital tokens to sukuk from an asset-backed perspective, digital tokens can be considered as securities or wealth based on the definition of security above. The different views of the four imams on digital tokens as securities or wealth (mal) are discussed further in Table 3 below.

Table 3: Digital Token and the Characteristic of Mal by Four Imams

Madzhab	Definitions	Digital token	
		Yes/No	Explanation
Hanafi	Desirable	Yes	Emerging as a new form of investment
	Physical form	No	It has no physical form, but it is representative of a physical asset. It has value and can be exchanged to fiat money.





	Can be stored	Yes	The wallet provided by the operator can save the investors' token
Maliki	Ownership	Yes	The ownership status is recorded in SC and within the system
	Secure	Yes	It is secured by the system by which every transaction is linked and locked in the blockchain system.
Shafii	Advantage	Yes	It generates value from the project and business itself, from the privilege given by the issuer and from trading activity.
Hambali	Advantage	Yes	It generates value from the project and business itself, from the privilege given by the issuer and from trading activity.
	Usage	Yes	The functionality can be an alternative of investments

Source: Modified from Beik, Nurzaman, and Sari (2019)

It is evident from Table 3 that the digital token does not meet all the stipulated requirements set by Imam Hanafi. However, it should be acknowledged that the digital token is endowed with an underlying asset, which implies an indirect possession of physical form. Considering that the criteria of all four Imams are collectively fulfilled, the logical conclusion is that the digital token can be categorised as wealth (mal) under Islamic principles.

Given the recognition of the digital token as wealth, it follows that Islamic laws pertaining to property (zakat) are indeed applicable to digital tokens.

Expert's Opinion on The Digital Token (Initial Exchange Offerings)

The unstructured interviews conducted with the experts highlight four important perspectives on the digital token. They are the Shariah perspective, legal perspective, financial challenge perspective, and technological perspective.

Shariah Perspective:

Dr. Moutaz Abojeib asserts that Shariah is supportive of technological advancements as long as they uphold the protection of wealth for the Ummah and align with the broader objectives of Maqasid Shariah. He contends that digital tokens can be in harmony with Shariah principles if they adhere to specific foundations tied to the underlying projects or businesses. This stance stems from Shariah's inherent principle of permitting transactions unless proven impermissible. A crucial matter discussed pertains to the compatibility of digital tokens with Shariah, ensuring they do not involve elements forbidden by Shariah. Additionally, Asst. Prof. Dr. Ziyaad Mahomed adds that societal perception holds significant weight. He underscores the importance of comprehending how people perceive the value of digital tokens and how social norms influence their acceptance.

Legal Perspective:

According to Dr. Sherin Binti Kunhibava, guidelines for digital assets and Initial Exchange Offerings (IEOs) serve to ensure compliance with regulations. She proposes that conflicts can be resolved through established dispute resolution mechanisms. She notes that Malaysia's legal





framework safeguards the interests of both local and international investors. The primary concern within the legal perspective revolves around guaranteeing that digital tokens and IEOs adhere to regulatory guidelines to safeguard investors and maintain the integrity of the market. The capacity to effectively resolve disputes among stakeholders is critical to preserving trust and confidence in digital tokens and IEOs. The consideration of how international investors' interests are protected under Malaysian law is noteworthy, given the global nature of digital tokens.

Financial Challenges Perspective:

Prof. Dr. Ashraf Bin Md. Hashim highlights issues related to the valuation of asset-backed tokens, challenges in determining token maturity, and addressing liabilities associated with lifetime businesses. He also delves into the transition from Initial Coin Offerings (ICOs) to IEOs and its potential impact on capital raising. Challenges in the financial realm encompass the accurate valuation of tokens backed by assets and the management of uncertainties related to underlying assets. Determining the maturity of tokens and addressing ongoing liabilities connected to lifetime businesses pose key considerations. The shift from ICOs to IEOs introduces challenges related to factors like cost-effectiveness, operator involvement, and minimum capital requirements.

Technological Perspective:

Asst. Prof. Dr. Rizal Mohd. Nor highlights the technological aspects, including investor reliance on issuer-created wallets, potential system vulnerabilities, and the necessity for issuer accountability and contingency plans. Within the technological dimension, ensuring the security of investor assets, particularly when stored in issuer-created wallets, is paramount to prevent unauthorised transfers and protect against potential security breaches. The robustness and reliability of the technological infrastructure supporting digital tokens and IEOs are critical to averting system failures that could impact investors and issuers. Regulatory measures are indispensable in instilling trust and confidence in the technological aspects of digital tokens and IEOs, as they govern matters related to security and accountability.

Aspects to Screen when Issuing Halal Digital Token

Considering the SC's Guidelines on Digital Assets launched in 2020 and considering the views given by the experts in the unstructured interviews, the aspects that need to be checked for Shariah screening are shown below:

Issuer + Underlying project or business + operator = Halal digital token





Based on the comprehensive discussion presented above, it becomes evident that Shariah scholars are highly supportive of the concept of issuing halal digital tokens, aiming to provide a novel investment avenue for Muslim investors. Within this context, certain fundamental elements rooted in Islamic teachings must play a pivotal role in shaping the valuation methodology. The Shariah perspective welcomes any issuer, regardless of whether it is a general company or non-Shariah compliant, to initiate the launch of a halal digital token. Notably, the assessment process is bifurcated, focusing on both the project and the core business of the issuer. Prof. Dr. Ashraf Bin Md. Hashim lends his support to this viewpoint, drawing parallels between Initial Exchange Offerings (IEOs) and Sukuk issuance. He asserts that just as conventional banks or non-Shariah compliant businesses can attract investors through Sukuk issuance, non-Shariah compliant businesses are not permitted to fund outside the confines of the project, such as general expenses.

The critical consideration lies in the nature of the underlying project or business, which must align with the tenets of Islamic teachings. This entails adhering to Islamic contracts like Mudharabah, Musyarakah, and Ijarah, among others. In terms of returns, investors may realise profits or experience losses contingent upon the performance of the business, resonating with the Islamic principle of "with profit comes risk" (al-ghonm bil ghurm). The potential return is intricately linked to the earnings generated by the project.

Furthermore, the permissibility of the operator's role is deemed acceptable. The operator is entrusted with the responsibility of conducting rigorous due diligence, comprehensive assessments, and ensuring compliance with the Guidelines on Recognized Markets and Guidelines on Digital Assets regulations before embarking on an Initial Exchange Offering (IEO). In essence, the role of the operator is primarily aligned with legal law rather than Islamic law. At the time of this study, Securities Commission Malaysia (SC) has officially recognised three market operators: Luno Malaysia Sdn. Bhd., SINEGY Technologies Sdn. Bhd., and Tokenize Technology Sdn. Bhd. These operators are instrumental in facilitating the IEO process within the Malaysian regulatory framework.

Designing A Sharia Framework for Halal Digital Token

General Framework for IEO and Critique

A comparative analysis between general Initial Coin Offerings (ICOs) and Initial Exchange Offerings (IEOs) underscores pertinent distinctions and forms the basis for a structured assessment, as illustrated in Table 4. This comparison, essential for contextualisation, is imperative to delineate the evolution of digital token issuance within the regulatory ambit.

Table 4: Comparison between ICO and IEO

Issues	Initial Coin Offerings	Initial Exchange Offerings
Government body	Not complying with any government body	Securities Commission Malaysia
Law and policy	Not following any law	Malaysian law and SC regulation
Issuing digital token	Private and individual	Tied to the operator





Transaction	Directly, mostly using cryptocurrency	Through operator in Digital Asset Exchange (DAX)
Whitepaper	Not following any standard	Following the standard of the Securities Commission Malaysia
Audit and reporting	Not required	Semi-annual and annual
Investor identity	Unknown	Operator records the token holder's identity

Source: (Author's own, 2020; Securities Commission, 2020)

As evidenced in Table 4, the disparities encompass the issuance mechanisms, regulatory oversight, and reporting obligations that diverge between ICOs and IEOs under the aegis of the Securities Commission Malaysia (SC).

Addressing Critiques and Establishing a Sharia Framework

In response to the proliferation of digital tokens, the author constructs an additional guideline to satisfy the needs of Muslim investors in Malaysia. Under the Guidelines on Digital Assets, the majority of risk exposures have been covered; nonetheless, the risk related to Shariah is yet to be addressed. Elucidating the imperatives set forth by Kunhibava and Muneeza (2019), a comprehensive guideline formulation necessitates the harmonisation of speed, security, and curbing criminal activities. Their elucidation encompasses multifaceted issues, such as establishing protocols for reporting misconduct, defining temporal reporting thresholds, fortifying cybersecurity measures, and counteracting money laundering and terrorism financing. A rigorous evaluation, according to the principles of Islamic jurisprudence, is required to identify potential non-compliance with Shariah tenets.

Derived from consultations with Shariah scholars, SC regulations, and personal insights, Table 5 embodies a Shariah screening framework tailored for halal digital tokens.

Table 5: Shariah framework for Halal Digital Token

Halal Digital Token	
Risk variances	Mitigation plan
Authority intervention on Shariah risk	Shariah adviser
	Shariah Audit
Environmental and stakeholder issues	Islamic project responsibility
Project	Must be a Shariah-compliant project or business
	Islamic smart contracts tied to its condition.





	Value-based Intermediation (VBI) Bank Negara Malaysia
Technology	Guidelines on Management of Cyber Risk
	Takaful Plan
Contaminated income	Charity
Fraudulent Marketing	Content reviewed by the operator
	Content reviewed by Shariah scholars
Payment method	Using legal currency

Source: Author's own and compiled from the Guidelines on Digital Assets (2020)

The constructed framework (Table 5) synergises Shariah and legal precepts, integrating mandatory elements such as appointing a Shariah adviser and fulfilling zakat obligations. It holistically addresses potential risk categories while upholding Shariah values and principles.

Authority Intervention on Shariah Risk

The legality of Shariah is the foundation for whether or not to undertake a project. Shariah issues can arise from various aspects of a project, such as the project itself, the documentation, the contract structure, and the implementation. To mitigate any risks associated with Shariah concerns, the authorities have adopted an integrated approach.

First, the appointment of a Shariah advisor is mandatory, as per Guidelines on Recognised Market chapter 12. The Shariah advisor can be either a person recognised by the Securities Commission (SC) or a commercial or investment bank approved by the SC. The Shariah advisor is responsible for all Shariah matters and must refer to the securities law and guidelines published by the SC. Additional rulings to comply with are those issued by the Shariah Advisory Council. In the absence of any rule, the Shariah advisor is permitted to exercise their own judgment (ijtihad).

Second, the Shariah auditor is appointed. The role of the Shariah auditor is to provide an independent and accountable assessment of Shariah matters. As per paragraph 19.1 of the Shariah Governance Policy Documents, the duties of the Shariah audit are to ensure that the risk management systems and end-to-end operations, projects, businesses, events, and activities are in line with Shariah.

Environmental and Stakeholder Issues

The world's attention on sustainability business is growing. In the last decade, Sustainable, responsible, and impact investing (SRI) has seen significant improvement, including in the financial industry (Azmi et al., 2019).

In the Malaysian context, data reported by Statista on 2 May 2019 shows that the most concerning environmental issues for Malaysians are global warming and climate change, air pollution, deforestation, flooding, future energy sources and supplies, etc. To address these





global concerns, digital tokens should align their projects or businesses with sustainable concepts.

Project responsibility generally refers to the environmental and stakeholder concerns of the project for the surroundings. The idea is derived from the Quran and Sunnah, which both emphasise ethics and social responsibility for humans as God's caliphs to protect His creation, as mentioned in verses Al-Baqarah: 30 and Al-A'raf: 56 of the Quran.

The sustainable approach can be referred to the concept created by Bahoo et al. (2019). The theory of Bahoo et al. (2019) divides the concept of Islamic corporate social responsibility into mandatory and recommended principles. The former mainly discusses the basic principles of Islamic finance teaching, which will be further elaborated on the project side.

Meanwhile, the latter are new suggestions that give high regard to the harmful environmental impact, the social impact of the project or business, employee welfare, excellent customer service, and philanthropic activities. Considering the whole concept proposed, the screening section will adopt the values of the recommendations, as the mandatory principles are already incorporated in Shariah assessment.

Project

Projects have many risk exposures, such as the project itself, the contract being used, operational risk, and failing projects. To address these issues, some mitigation plans are proposed in the framework through the consolidation of Shariah procedures.

The nature of the project or business and the Islamic smart contract used must be in line with Shariah principles. In general, unlawful businesses include those that involve pork, alcohol, gambling, prostitution, or conventional financial institutions. However, being halal is not enough. Shariah risk remains a concern, and Islamic law requires projects or businesses to be tied to specific contracts, such as Mudarabah, Musyarakah, Ijarah, or Istisna. Islamic smart contracts come into play only as the terms used to incorporate the contract into the agreement are to be automatically executed in the blockchain system when the terms and conditions are met.

To strengthen the validation of Shariah implementation, the author suggests endorsing Value-based Intermediation by Bank Negara Malaysia, issued on 12 March 2018. Value-based Intermediation, as defined in the Value-based Intermediation Financing and Investment Impact Assessment Framework (VBIAF) issued by Bank Negara Malaysia on 1 November 2019, aims to deliver Shariah outcomes through practices, methods and value-added products that produce beneficial and sustainable impacts for all stakeholders in the long term. The principles of VBIAF are critical to consider.

Technology

The use of sophisticated technology in digital tokens can have both positive and negative consequences. On the one hand, it can lead to enormous benefits, such as increased efficiency and security. On the other hand, it can also pose risks, such as technical failures, system downtime, and cyber-attacks.

The case of Coincheck Inc. is a good example of the risks associated with digital tokens. In January 2018, hackers stole \$534 million worth of digital currency from Coincheck, one of Japan's largest digital currency exchanges. This incident highlights the need for robust security measures to protect digital tokens from criminal activities.





In Malaysia, digital security management is still in accordance with the Guidelines on Management of Cyber Risk, which was issued on 31 October 2016. However, Dr. Sherin Binti Kunhibava emphasises that the regulator needs to update the law to keep pace with technological advancements.

In addition to legal security, there is also another way to prevent technical disruptions. Although the Guidelines on Digital Assets (paragraphs 5.04(i), 14.05, and 14.06) mention risk mitigation, they do not explicitly mention using a takaful plan. Since there is no takaful plan available in the market for digital tokens, the issuer can propose a new plan to cover the digital token from the technology side, as this is the most important element to address in the operational system. It is important to ensure that the agreement between the issuer, IEO operator, and takaful company is clear about the subject matter and risk to be covered before the underwriting process begins. This measure is supported by Dr. Mohammad Mahbubi Ali.

Contaminated Income

In this paper, digital tokens have been classified as wealth, which has significant implications, particularly in the context of zakat. Zakat is the third pillar of Islam and has the function of purification (National Zakat Foundation, n.d.), which also indicates the cleansing of a person's material and spiritual aspects. Zakat is also one of the measures in Islam to circulate wealth among Muslims so that it is not concentrated in a particular social class. Muslims are required to pay zakat if the amount of their wealth reaches the nisab (minimum threshold) and has been owned for a certain period of time (haul). The Quran already categorises zakat recipients in verse 60 of Surah At-Taubah, namely the asnaf.

Furthermore, income generated from commercial activity may be contaminated with impure components. These components are unacceptable in Islamic teachings, as Allah prohibits haram elements. In the modern world, where the financial system is heavily interconnected with interest, even if preventive measures are taken to avoid unwanted elements, the possibility of being affected is unavoidable. This case should be reported to the Shariah audit, along with any case that contradicts Shariah rules and principles, which is called a Shariah non-compliance event. The revenue earned from this event is not recognised as income. Thus, Islam can eliminate unlawful income by channelling a specific amount to charity, which has also been practised in Islamic Financial Institutions.

Fraudulent Marketing

Statis Group, an ICO advisory company, found that more than 80% of ICOs in 2017 were reported as fraudulent (Alexandre, 2018). The method used was to track the lifecycle of ICOs from the launch date to the mature phase of trading through digital exchanges. The total amount of funding collected in 2017 was approximately \$11.9 billion, of which \$1.34 billion was from scam projects. The three biggest scam projects that were identified were Pincoin (\$600 million), Arisebank (\$600 million), and Savedroid (\$50 million).

Marketing the project through a whitepaper is a critical success factor in raising funds. As this stage is strategic in determining the success of an ICO, the marketer has a serious potential to oversell the project using misleading language. The marketer uses social media platforms, other related websites, or offline measures such as roadshows or seminars to attract the attention of crypto enthusiasts. Joo et al. (2019) mentioned that the advertising to market and raise public awareness of an ICO is carried out by the issuer, while in Malaysian law jurisdiction, it is handled by the operator.





Accordingly, this event highlights the need to assess the contents of the whitepaper and marketing activity to eliminate the element of gharar. The former is governed by the IEO operator, as stipulated in the Guidelines on Digital Assets (Chapter 14, paragraph 14.02 (c)), which states that the IEO operator is obligated to appraise all contents and information in the whitepaper. However, it is unclear which entity will conduct the content review and how the message will be delivered. Thus, a Shariah adviser can play a role in validating the documentation, as the Shariah committee does in the takaful industry (IBFIM, 2016).

Payment Method

Joo et al. (2019) highlighted that Bitcoin and Ether are among the most widely accepted cryptocurrencies in Initial Coin Offerings (ICOs) transactions. Given their prevalence as a medium of exchange in ICOs, both Shariah and legal considerations come into play. From a Shariah perspective, these cryptocurrencies are evaluated as conflicting with Shariah principles. This assessment is primarily due to their association with elements of gambling (Maysir) and excessive uncertainty (Gharar), deemed significant issues. Additionally, digital currencies like Bitcoin and Ether are found to not align with the objectives of Islamic law (Maqasid al-Shariah) (Meera, 2018). Furthermore, Meera (2018) also questions the validity of fiat currency. The subsequent Table 6 provides a comparison of the Shariah viewpoint on fiat money and cryptocurrency, based on his evaluation.

Table 6: Currency Comparison

Islamic perspective	Fiat Currency	Cryptocurrency not backed by real asset
Maysir	Medium	High
Gharar	Medium	High
Islamic money	No	No

Source: Meera (2018)

Table 6 provides a comprehensive comparison of different currencies from an Islamic perspective. The table evaluates both fiat currency and cryptocurrencies that are not backed by real assets against key criteria such as Maysir (gambling) and Gharar (excessive uncertainty). The assessment ranks these criteria as "Medium" or "High" for each type of currency, indicating the extent to which these concerns are present in each category. Furthermore, the table explores the alignment of these currencies with the concept of Islamic money, revealing that neither fiat currency nor the analysed cryptocurrencies fulfil the criteria of Islamic money.

CONCLUSION AND RECOMMENDATION

As a result of consulting with experts in various fields, including Shariah scholars, and conducting a thorough examination of the existing literature and the emergence of digital tokens as new investment instruments, the author concludes that there is a demand for a Shariah screening framework for Muslim investors. In response to this demand, the author has





developed a preliminary framework by closely scrutinising the three key components of the Initial Exchange Offering (IEO) process: the issuer, the proposed project, and the operator. This comprehensive approach aims to address potential Shariah-related factors and concerns.

The foundation for establishing this framework is derived primarily from the Guidelines on Digital Assets and Guidelines on Recognized Markets. It encompasses various potential factors that can impact Shariah compliance. The framework takes into account issues such as Shariah risks, environmental considerations, project and technology assessment, contaminated income, fraudulent marketing, and payment methods. Solutions to address these challenges are drawn from regulations set forth by the Securities Commission Malaysia (SC) and Bank Negara Malaysia (BNM), expert opinions, and industry best practices.

The proposed Shariah framework is designed to assist Muslim investors both within and outside of Malaysia in making investments in halal digital tokens that align with their religious beliefs. Therefore, it is recommended that the government, as the highest authority, introduce an additional rule by issuing an official Shariah framework for halal digital tokens in addition to the existing guidelines. This would provide assurance to both Muslim investors seeking Shariah compliance and issuers looking to raise halal digital tokens.

Furthermore, in the context of adopting blockchain technology for digital tokens, the industry currently lacks professionals who possess expertise in both Shariah principles and information technology. This highlights the need for comprehensive training programs to develop professionals who can proficiently navigate both disciplines.

The anticipated impact of this study's findings is that they can serve as the basis for establishing a Shariah framework for halal digital tokens. This could be particularly relevant for government authorities, as it lays the groundwork for enhancing official guidelines. Additionally, the balanced approach of the framework, backed by expert endorsement, could prove valuable for industry participants in independently evaluating digital tokens from a shariah perspective. It is important to note that this research specifically addresses digital tokens within the Malaysian regulatory jurisdiction, and the scope does not extend to digital currencies.

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