

INTRODUCTION

It has already been a decade since the launch of Bitcoin as a digital peer-to-peer payment system. Within this period, the crypto-asset class has become a multi-billion-dollar industry. The upside potential and downside risk in the crypto industry has attracted the attention of investors and speculators. To put things into perspective, from 2014 to the beginning of 2018, oil prices didn't change by more than 10% in one day unlike the value of Bitcoin which changed significantly – rising by 65% in one day and falling by 25% on another¹. Despite governments, regulators and Shariah scholars debating and reviewing the nature of crypto-assets and related risk profiles, the crypto market has continued to evolve and develop. Towards this end, crypto assets have seen shifts in token offering strategies and mechanisms. Initial Coin Offerings were the most prevalent form of token offerings up to 2017; 875 projects raised over \$6 billion funds through ICOs. The 2018 saw 1,253 ICOs raise approximately \$8 billion. The decline of ICOs began towards the end of 2018 when Security Token Offerings (STOs) began to dominate the headlines with regulatory authorities deeming them as safer investments compared to ICOs. This is of no surprise as one study showed that 80% of ICOs in 2018 were scams. In the US, STOs required that investors must be accredited by the United States Securities and Exchange Commission (SEC). 2019 has seen the launch of Initial Exchange Offerings (IEOs) which was triggered by Binance launching an offering on BitTorrent Token. The latest iteration of tokenoffering mechanisms is the Initial DEX Offerings (IDO) which are conducted on decentralised exchanges2.

This research paper explores ICOs, STOs, IEOs and IDOs to understand their essence and differences with a focus on the Shariah compliance and Shariah requirements for each of these offerings. Initially, a brief introduction is given to crypto-assets. Thereafter, the different types of token offerings are explored, and the similarities/differences are compared. The paper ends with a discussion on the Shariah principles governing token offerings.

 $^{1\}quad Bank\ of\ England,\ What\ are\ cryptoassets?,\ Available\ from:\ https://www.bankofengland.co.uk/knowledgebank/what-are-cryptocurrencies$

² Coin Telegraph (2019), IEOs, ICOs, STOs and Now IDOs, available from: https://cointelegraph.com/news/ieos-icos-stos-and-now-idos-how-to-raise-funds-for-crypto-in-2019

AN OVERVIEW OF CRYPTO-ASSETS

Crypto-assets, cryptocurrencies, tokens and coins are popular terms used interchangeably in the cryptocurrency industry. However, practitioners and enthusiasts in the crypto space draw a distinction among these terms.

Crypto-assets are considered as the umbrella term for all cryptos. Crypto-assets can be defined as "a digital representation of value that uses cryptographic encryption techniques". Crypto-assets are digital assets which utilise cryptography, peer-to-peer networking, and a public ledger to regulate the creation of new units, verify transactions, and secure the transactions without the intervention of any middleman⁴. Thus, they are digital in nature and use cryptography to verify that the person spending the crypto-asset is entitled to do so. All this takes place on a decentralised peer-to-peer network and the data is recorded on a decentralised public ledger which is known as blockchain. There are numerous taxonomies of crypto-assets, we will present one such taxonomy.

1. Cryptocurrencies

Cryptocurrencies or coins are a type of a cryptoasset that are made to serve as payment systems and to transfer value. According to Ernst & Young, a cryptocurrency is designed as a general-purpose medium of exchange across applications⁵. They are intended to serve as an alternative to fiat currencies and transfer economic value. Bitcoin, Litecoin and Dash are examples of cryptocurrencies and coins, since they have value outside their native environment. However, the Financial Conduct Authority terms these as exchange tokens⁶.

2. Tokens

A token is a representation of something in its particular ecosystem. It may represent value, stake, voting right, or anything. According to Ernst & Young, a token tends to be designed to support a more narrowly-defined, specific use case of distributed ledger technology⁷. A token is not limited to one particular role; it can fulfil a lot of roles in its native ecosystem. Tokens typically exist on top of an existing smart contract platform, like Ethereum. There are various categorisations for tokens, the following is one such category:



a. Security Tokens

PwC define security tokens as: digital tokens based on blockchain technology that are similar in nature to traditional securities. They can provide an economic stake in a legal entity, sometimes a right to receive cash or another financial asset, which might be discretionary or mandatory; sometimes the ability to vote in company decisions and/or a residual interest in the entity⁸.

The most common method to differentiate securities from utility tokens is by using The Howey Test. Its title refers to a 1946 US Supreme Court case involving the Howey Company of Florida. In brief, the company decided to lease half of its property to speculators based on the assumption that it would generate profit for them as a result of someone else's labour but failed to register the transactions with the US Securities and Exchange Commission (SEC). When the case finally arrived at the Supreme Court, it was deemed unprecedented and required a new method to assess what constitutes a security. Hence, The Howey Test came into fruition.

According to the test, a transaction is considered a security if it meets the following criteria:

- 1. It is an investment of money.
- 2. The investment is in a common enterprise.
- **3.** There is an expectation of profit from the work of the promoters or the third party.

A token that passes the Howey Test is treated as security token. Mistaking security tokens for tokenized securities is a common error. The critical difference between the two is that security tokens are newly issued securities that function on distributed ledger while tokenized securities are just token representations of already existing financial products. Basically, if you issued a new financial product with security features, it is a security token. If you take an existing asset and wrap it in a token, it is a tokenized security. Security tokens are subject to federal securities and regulations since they derive their value from external, tradable assets.



- 8 PwC (2018), In depth A look at current financial reporting issues, Available from: https://www.pwc.com/gx/en/audit-services/ifrs/publications/ifrs-16/cryptographic-assets-related-transactions-accounting-considerations-ifrs-pwc-in-depth.pdf
- 9 Cryptonews, What is a Security Token Offering?, Available from: https://cryptonews.com/guides/what-is-a-security-token-offering-sto.htm

b. Utility Tokens

Utility tokens are digital tokens based on blockchain technology that provide users with access to a product or service and derive their value from that right. Utility tokens give holders no ownership in a company's platform or assets and, although they might be traded between holders, they are not primarily used as a medium of exchange. These tokens are usually created with a specific purpose in mind, bespoke to the project that issues them. They can be exchanged for specific services such as distributed storage, in-app currency or for more operational purposes. The value of these tokens is usually based on their expected use in the project for which they were intended. These tokens simply provide users with a product and/or service. Think of them like gateway tokens which can:

- Give holders a right to use the network
- Give holders a right to take advantage of the network by voting¹⁰

c. Asset-backed tokens

According to PwC, an asset-backed token is a digital token based on blockchain technology that signifies and derives its value from something that does not exist on the blockchain but instead is a representation of ownership of a physical asset (for example, natural resources such as gold or oil)¹¹.

d. Hybrid tokens

Some digital coins (such as Ether, NEO, and DASH) have more features than just being useful as a form of money. Listed below are some of those uses:

- Ether (ETH) is used to fuel transactions on the Ethereum network. Tokens can be built on Ethereum, but Ether is still required to send a token. It funds the mining costs (it pays the computers that verify transactions on the Ethereum network).
- NEO (NEO) is staked in a wallet to earn a dividend. This dividend is known as GAS. Like Ethereum, Tokens can also be built on NEO.
 When sending a token on the NEO network, you need to pay GAS as a transaction fee, the same way that Ether is used to pay Ethereum fees.
- Finally, holding enough Dash (DASH) allows users to vote on important decisions for the Dash network. If there is an idea suggested to upgrade the DASH network, those holding enough Dash can vote to decide whether the upgrade should happen. These voting rights allow the holders of DASH to have a say in how the project evolves.

¹⁰ Rosic, A, (2017), What is an Initial Coin Offering? Available from: https://blockgeeks.com/guides/initial-coin-offering/

 $^{{\}bf 11}\ PwC\ (2018), In\ depth-A\ look\ at\ current\ financial\ reporting\ issues, Available\ from: https://www.pwc.com/gx/en/audit-services/ifrs/publications/ifrs-16/cryptographic-assets-related-transactions-accounting-considerations-ifrs-pwc-in-depth.pdf$

INITIAL COIN OFFERINGS

An Initial Coin Offering (ICO) is a method of raising funds through the use of cryptocurrencies. ICOs are basically blockchain crowd sales; the cryptocurrency version of crowdfunding. ICOs are commonly contrasted to Initial Public Offerings (IPOs) due to the commonality of wanting to raise funds through offering and issuing something. However, this comparison is quite deceptive and inaccurate. IPOs usually apply to established businesses that sell partial ownership shares in their company as a way to raise funds. In contrast, ICOs are mainly used as a fundraising mechanism that allows companies to raise funds for their project in very early stages¹². Before an ICO, a company charts out their project, vision, token and their minimum viable product (MVP) in a whitepaper. Companies usually create a token on the Ethereum blockchain based on the ERC-20 token standard. A company can use the Ethereum smart contracts to create and issue their own token. The ERC-20 protocol defines a set of rules that the company must adopt if they want to issue a token on the Ethereum blockchain.

Stages in an ICO

An ICO typically goes through the following stages¹³:

1. Conception

This is the brainstorming phase where the idea is worked upon to develop a minimum viable product. This stage involves creating the business concept for the project. A whitepaper is usually drafted to capture the value-adding elements of the project.

2. Pre-sale Announcement

The pre-sale announcement is an early announcement about the procedure and business concept that ignites the interest of the investors. During this phase, the ICO development company gives a presentation and executive summary of the project that explains its vision and mission.

3. Technical development

In this phase, the technical development of the token and the token management system take place.

4. Marketing stage

A huge PR campaign begins on social media as well as appearances at crypto events to sell the concept of the project.



¹² Binance (2019), What is an ICO?, Available from: https://www.binance.vision/economics/what-is-an-ico

5. Final stage

The final stage is the token sales. There are different types of sale rounds that occur such as¹⁴:

- a. Private Sale This is the first investment proposal. Announcements are made on the terms of the idea and implementation, the necessary amount of coins and token emission. To do this, a special site or presentation is published. Often, there is a preliminary closed token sale allowing collection for the official launch. At this stage, tokens can be bought at a maximum discount with bonuses (sometimes up to 50%) offered on more flexible terms.
- b. Pre-ICO or Pre-Sale this is the fundraising stage before the ICO for its realisation. During the Pre-Sale, the cost of tokens is traditionally lower than at the ICO, but higher than at the Private Sale; investors receive bonuses and discounts. Many investors consider this stage to be potentially, most profitable. They buy tokens at a low cost, and then sell them as soon as they start trading on exchanges; thus taking a form of short-term investment.
- c. Token sale start (Crowd sale) this is the main stage of the token sale, the ICO itself. Initially, the start-up offers investors to purchase tokens at their platform (website). Later, sales are launched on the publicly available crypto-exchanges. The release of the ICO start-up tokens on the exchange is considered to be a certain proof of the solvency of the project, but it does not guarantee its success in the long term.

Shariah Analysis on ICOs

An ICO itself is just a mechanism to raise capital. The juristic maxim states:

"The original and default position in transactions is permissibility" (Sharh al-Wiqayah) Therefore, the mechanism is permissible unless a clearly prohibited activity takes place in a coin offering. Moreover, since an ICO involves exchanging tokens, all the rules and principles of a sale (Bay') will apply. These principles include (but not limited to) the following,

- the existence of the token at the time of the offering and sale;
- ownership along with physical or constructive possession by the issuing company;
- instant, absolute and unconditional sale;
- price must be clearly known and certain.

For a detailed list of principles please see schedule 1. If the extended rules of sale (Bay') are adhered to, then the actual ICO will be permitted as long as it passes the screening criteria suggested towards the end of this paper.



14 Zodiaq (2018), What is ICO & What rounds of fundraising are there?, Available from: https://medium.com/@ZODIAQ/what-is-ico-and-what-rounds-of-fundraising-are-there-4ce836d53271

SECURITY TOKEN OFFERINGS (STOS)

A security is an economic instrument representing an actual asset. Stocks, bonds and managed property trusts are examples of securities.

Traditionally, when a security is purchased, the operation is done the old fashion way, on paper. A security token performs equally in functionality; the difference is that it confirms ownership through blockchain transactions. Security tokens offer a number of financial rights to investors such as equity, profit dividends, income shares, vote casting, and access to many others investment mechanisms¹⁵. At the heart of an STO are security tokens. The Financial Conduct Authority (FCA) in the UK describes security tokens in the following manner:

"Security tokens are those tokens that meet the definition of a Specified Investment as set out in the Regulated Activities Order, and possibly also a Financial Instrument under MiFID II. For example, these tokens have characteristics which mean they are the same as or akin to traditional instruments like shares, debentures or units in a collective investment scheme. Security tokens include tokens that grant holders some, or all, of the rights conferred on shareholders or debt-holders, as well as those tokens that give rights to other tokens that are themselves Specified Investments. We consider a security to refer broadly to an instrument (i.e. a record, whether written or not) which indicates an ownership position in an entity, a creditor relationship with an entity, or other rights to ownership or profit. Security tokens are securities because they grant certain rights associated with traditional securities."

A security token is essentially an investment contract into an underlying asset; it has all the attributes of a security in that it is a fungible, negotiable financial instrument that represents actual monetary value. STOs are backed by real assets and follow the SEC's guidance on compliance, issuance, and trading. The STO is an

attempt by founders to issue a token offering that remains compliant with legislation, depending on the specific geographies from which it is taking investment. This may mean registering the STO with local regulators as a securities offering.

In contrast with an ICO, an STO investor is assured that they are buying equity, debt, derivative, certificate of interest or a participation of any profit-sharing organisation. While this is no guarantee of profit by itself, it's comparable to buying stock in a publicly traded company. If the project returns a profit, the investor has a legitimate claim on the share of those returns. An STO isn't necessarily just for a start-up either, an already-established company could use an STO to issue digital tokens against existing equity instruments, for example, to raise funding for a new product or business line. Whereas the secondary markets for ICO tokens are largely unregulated cryptocurrency exchanges, STO tokens are traded on fully regulated trading platforms¹⁶.

¹⁵ Zamagna (2018), What is a Security Token Offering?, Available from: https://medium.com/datadriveninvestor/what-is-a-security-token-offering-sto-1758e14a3b52

¹⁶ Mappo (2019), What is an STO?, Available from: https://medium.com/aelfblockchain/what-is-an-sto-how-is-it-different-from-an-ico-daf5fd2c17d1

Shariah Analysis on STOs

An STO is a mechanism to raise capital in lieu of equity. Like an ICO, the Shariah compliance of an STO (apart from the proposed Shariah screening criteria detailed towards the end of this paper) depends on the implementation of the following principles of a Sharia compliant sale (Bay') [see schedule 1 for details].

- Principle 1: The token must be existing at the time of the token offering and sale.
- Principle 2: The token must be in the ownership of the issuing company at the time of the token offering.
- Principle 3: The token must be in the physical or constructive possession of the company at the time of the token offering.
- Principle 4: The sale of the token must be instant and absolute.
- Principle 5: The sale of the token must be unconditional.
- Principle 6: The token must be categorised as Mal Mutaqawwim
- Principle 7: The token cannot be designated for a non-Shariah compliant purpose and utility.
- Principle 8: The token must be clearly known to the buyers.
- Principle 9: The price of the token must be clearly known and certain at the time of selling the token.
- Principle 10: The delivery of the token to the buyer must be certain and should not depend on a contingency or chance.



INITIAL EXCHANGE OFFERINGS (IEO)

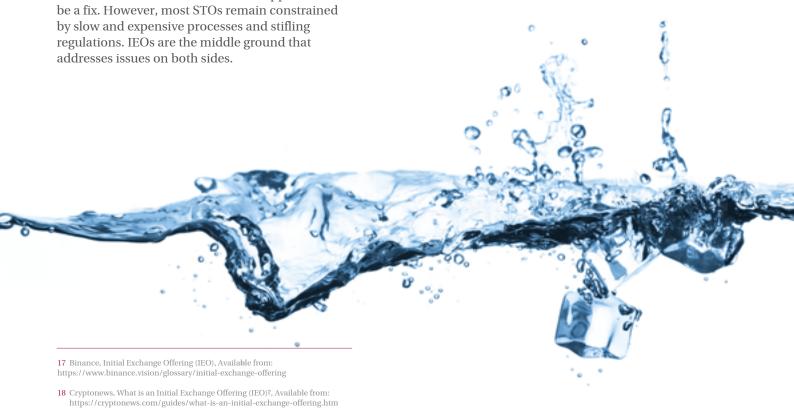
An Initial Exchange Offering, commonly referred to as an IEO, is a fundraising event that is administered by an exchange. In contrast to an Initial Coin Offering (ICO) where the project team themselves conduct the fundraising, an Initial Exchange Offering means that the fundraising will be conducted on a well-known exchange's fundraising platform, such as Binance Launchpad, where users can purchase tokens with funds directly from their own exchange wallet. For a user, an IEO is easy to participate in as they don't need to manage on-chain transactions with different wallets on different blockchains. Instead, a user only needs an account on the exchange and some funds in their account and can participate completely through the trusted website's interface. Additionally, the exchange is staking its reputation behind the projects on its platform, offering a higher degree of trust behind the project. For a project looking to raise funds, an IEO offers the promise of an immediate user base that can see their product, and depending on the size of the exchange's audience, could mean that the project can reduce their outside marketing funnels for fundraising, allowing them to focus only on the development of their product¹⁷. Since ICOs are unregulated, and most of them turned out to be scams, STOs were supposed to

Essentially, IEOs is another way to crowdfund various crypto-asset start-ups through a crypto-exchange acting as a mediator. With the help of a crypto-exchange, projects manage to get significantly more exposure, interest, and credibility. After a successful IEO, the token issuers pay a listing fee along with an agreed amount of tokens for the use of IEO platform services. Soon, the tokens are listed on the exchange where investors can access instant liquidity¹⁸.

Shariah Analysis on IEOs

Like the above discussed mechanism, an IEO is just another way to raise capital via a centralised exchange. The juristic maxim states:

"The original and default position in transactions is permissibility" (Sharh al-Wiqayah) Therefore, the mechanism is permissible unless a clearly prohibited activity takes place in a coin offering. Since an IEO involves exchanging tokens, all the rules and principles of a sale (Bay') will apply. If the rules of Bay' are adhered to, then the actual IEO will be permitted as long as it passes the screening criteria suggested towards the end of the paper.



INITIAL DEX OFFERINGS

Initial Decentralised Exchange Offerings (IDO) are something which are still very much in their infancy. This is the latest fundraising mechanism in the crypto space and a new way for token offerings. Binance recently launched its first decentralized exchange, which allows users to trade cryptocurrencies directly from their digital wallets without a custodian mediating the transactions¹⁹. IDO is a fundraising method that will enable protocols available for traders. It's similar to ICOs, however, without any accountability to a central party. IDOs allow users to have access to their private keys of their wallet instead of the cryptocurrency exchange having access to all the private keys and getting hacks or to the owner dying. This allows people to have control over their assets in their accounts.

Shariah Analysis on IDOs

An IDO is the latest mechanism in the cryptosphere to raise capital via a decentralised exchange. The juristic maxim states: "The original and default position in transactions is permissibility" (Sharh al-Wiqayah) Therefore, the mechanism is permissible unless a clearly prohibited activity takes place in the coin offering. Since an IDO involves exchanging tokens, all the rules and principles of a sale (Bay') will apply. If the rules of Bay' are adhered to, then the actual IDO will be permitted as long as it passes the screening criteria suggested towards the end of the paper.

A CONTRAST BETWEEN THE DIFFERENT **TOKEN OFFERINGS**

The following two charts compare and contrast the different characteristics between the ICOs, STOs and IEOs.

	Characteristics	IEO	ICO	STO
	Token Sale	The exchanges are selling the tokens once listed	The issuer is responsible for the sale	Security token issuer takes care of the fundraising process
	Marketing & Advertising	Exchanges do all the marketing and advertising	Project teams take care of all the advertising and marketing	The team behind the project does the marketng and advertising
<u>=</u>	Transactions	Investors transact directly with the token Issuer	The issuer is responsible for the sale	Takes place on the issuer website
B	Trust	No trust issues; exchanges ensure due diligence before listing a token	There are trust issues due to some token issuers providing misleading information	High trust levels since the tokens have intrinsic value/they represent real assets
B	Security	Highly secure since all transactions happen within the exchange website	Highly insecure as transactions happen on ICO project website which could lack proper security measures	Highly secure since the token falls under regulations like under the SEC in the US.
	Fees	Exchanges charge issuers commission	No fees	No fees
(B)	Regulation	Unregulated	Unregulated	Regulated

Source: 101Blockchains

Comparison between IEO, ICO, and STO

	IEO (Initial Exchange Offering)	ICO (Initial Coin Offering)	STO (Security Token Offering)
Definition	Crowdfunding by issuing utility token/coin via cryptocurrency exchange	Crowdfunding by issuing utility token/coin	Crowdfunding via issuing asset-backed token/coin
Difficulty to Set Up	Medium	Easy	Hard
Fundraising Cost	Medium	Low	High
Investor Protection	Medium	Low	High
Investor Accessibility	Medium	High	Low
Regulation Level	Medium	Low	High
Governance Level	Medium	Loose	Tight
Liquidity	High	Medium	Low

Source: Kodorra



SHARIAH REVIEW OF THE VARIOUS TOKEN OFFERINGS

All token offerings should go through the following screenings before Shariah compliance can be determined:

- 1. Anti-scam screening
- 2. Business activity screening
- 3. Financials screening
- 4. Token screening

1. Anti-scam screening

A study of the ICOs launched in 2017 found that more than 80% of ICOs were a scam. According to the study, total funding of coins and tokens in 2017 amounted to \$11.9 billion. \$1.34 billion (11 percent) of ICO funding went to scams, the vast majority went to three large scammy projects; Pincoin (\$660 million), Arisebank (\$600 million), and Savedroid (\$50 million), which together equal \$1.31 billion. This suggests that while a large number of ICOs were scams, they received very little funding when compared with the industry as a whole²⁰. Traditional screening measures such as Know your customer (KYC) and Anti-money Laundering (AML) can be applied to validate the identity of the people behind the ICO. The introduction of such checks in the ICO process can help prevent fraud, scams and illegal financial transactions.

A Shariah board should have a technical advisor(s) or scholars who can review the project and token offering from a legitimacy and authenticity perspective. In the absence of a regulator for the crypto-asset industry, it is part of the Shariah governance to screen crypto-assets using traditional financial KYC and AML protocols to detect scams. Any Fatwa on a token offering should reflect the findings of the anti-scam screening process. The Shariah supports such a filter and screening based on the following texts: Allah Almighty says:

"O you who have believed, do not consume one another's wealth unjustly but only [in lawful] business by mutual consent."

(Quran 4:29)

20 Cointe

20 Cointelegraph (2018), New Study says 80 percent of ICOs Conducted in 2017 were scam, Available from: https://cointelegraph.com/news/new-study-says-80-percent-of-icos-conducted-in-2017-were-scams

Consuming money unjustly comprises all methods of exchanging money among the people in a way that Allah does not allow and totally prohibits. Some of these methods are fraud, bribery and gambling. The Prophetic narration states:

"Whoever cheats us, is not one of us." (Sahih Muslim)

According to another report, the Prophet (peace be upon him) passed by a pile of food in the market. He put his hand inside it and felt dampness, although the surface was dry. He said:

"O owner of the food, what is this?" The man said, 'It was damaged by rain, O Messenger of God."

He said,

"Why did you not put the rain-damaged food on top so that people could see it! Whoever cheats us is not one of us."

(Sahih Muslim)

Ibn Qudamah states: If a person knows that there is a defect in his goods, it is not permissible for him to sell them unless he discloses it to the purchaser. If he does not disclose it then he is sinning²¹. Thus, fraudulent activity is not permitted at all. The

Shariah board will be discharging a form of enjoining good and forbidding evil (*amr bil-ma'ruf and nahi anil-munkar*) by highlighting potential scams.

According to experts, the following are signs and indicators for a potential scam in the crypto space:

- 1. Plagiarism of other whitepapers and ICOs
- Inconsistent content posting across social channels
- 3. Using fake followers or subscribers to create an artificial buzz
- 4. Unrealistic claims
- 5. No escrow account
- **6.** Token distribution disproportionately favours the management team by 30% or more
- 7. The lack of key information in the whitepaper
- 8. No KYC (Know Your Customer) or AML (Anti-Money Laundering) solutions
- 9. Empty GitHub repositories
- 10. Fake wallets & private keys

In the absence of regulation from the regulatory bodies, the above checks and balances should be carried out on any token being reviewed for Shariah compliance.



2. Business activity & project screening

The second screening should consider the core business activity or project of the token offering. It is not permissible to purchase the tokens of any offering whose project is primarily non-compliant with Shariah²². This applies to all types of tokens being offered; equity tokens or otherwise. In equity tokens, a project offers you equity and an ownership interest in the project which is symbolised by the token in return for your capital. Having an ownership interest in a Shariah non-compliant business is not permissible. If a token offering is giving another type of token and not an equity token, it will still not be permitted to invest in the project. The primary reason behind this is that purchasing any token of a non-Shariah compliant project will result in funding the launch of a non-compliant project.

This filter will apply for primary market and secondary market transactions. The primary market encompasses the private sales, pre-ICO sales and ICO sales where investments are transferred directly to the token-offering company. Similarly, it will apply to secondary market transactions where investors trade the token among themselves. For equity tokens, it is clear that even secondary market transactions will give you an ownership interest in the project and therefore not permitted.

Any token offering whose core business activity is from the following industries is non-Shariah compliant:

- Riba-based conventional financial services
- Non-Shariah compliant exchanges and investment platforms
- Trading in risk and *Gharar* such as insurance companies
- Qimar and Maysir activities such as gambling and betting platforms
- Alcohol and prohibited beverages
- Pork related products and non-halal food production, packaging, processing or any direct activity linked to unlawful consumables
- Tobacco related products
- Illicit adult industry such as pornography
- Non-Shariah compliant entertainment and recreational facilities



3. Token Screening

The token screening is an additional layer to the business activity screening. The business activity screening ensures equity tokens are Shariah compliant. The token screening considers the nature of the various types of tokens and whether they are Shariah compliant and the rules that will apply to such tokens.

a. Currency coins

Any crypto-asset which is identified as a currency coin should be treated as a currency. As such, if it is traded in lieu of another currency, all the rules of *Bay' al-Sarf* (contract of exchange of money for money) will apply. Likewise, if it is exchanged in lieu of gold or silver, the rules of *Bay' al-Sarf* will apply as per AAOIFI Shariah Standard 1 on trading in currencies and Shariah Standard 57 on trading in gold. If the currency coin is exchanged for an asset, it will be regarded as the purchase price (*thaman*), and all the Shariah rules pertaining to the purchase price in transactions will apply.

b. Utility tokens

Utility tokens grant the holder rights to the utility and benefits of a project. Any token which offers a non-Shariah compliant utility, service or access to non-Shariah compliant activities will be deemed impermissible. It is not permissible to trade the rights to an impermissible service or utility. The Shariah rulings of *Bay'* (trading) will apply to utility tokens.

c. Asset-backed tokens

An asset-backed token is a digital representation of an underlying asset. The value of such type of token is pegged against the value of the underlying asset. For such a token to be Shariah compliant, the following needs to be ensured:

I. The token represents something which is *Mal*. This is a technical term which refers to something being identified as a valid asset and property which can be traded.

- II. The token represents something which is *Mutaqawwim*. This refers to an asset or item being lawful to trade in Shariah.
- III. The token represents ownership of the underlying asset and not simply a correlation in price to an underlying commodity. This is crucial, otherwise, it can be a derivative token which is not Shariah compliant.

 Therefore, every time an asset-backed token is exchanged, it must correspond to the transfer of ownership of the underlying commodity.

 The token therefore is a digital representation of the commodity and evidence of ownership. An asset-backed token is the tokenisation of an asset. If a non-Shariah compliant commodity is being tokenised and sold, trading such a token will not be permitted as it involves trading non-Shariah compliant assets.

4. Financial Ratios Screening

The financial screening criteria apply for security tokens only where investment is being made into equity. The AAOIFI Shariah Standard 21 offers the following financial screening for equities:

- 1. Total interest and income from any noncompliant activity must not exceed 5% of total revenue.
- 2. Interest-taking deposits must be less than 30% of the market capitalisation or book value of the company.
- 3. Interest-bearing debt must be less than 30% of the market capitalisation or book value of the company.
- 4. Total market value of non-cash and nondebt assets should be at least 30% of the total value of all the assets.

Further Shariah concerns

The token screening is an additional layer to the business activity screening. The business activity screening ensures equity tokens are Shariah compliant. The token screening considers the nature of the various types of tokens and whether they are Shariah compliant and the rules that will apply to such tokens.

1. Smart contract rules must be Shariah compliant

Security tokens are made out of many smart contracts. A smart contract is a simple program designed to execute once a specified criterion is automatically satisfied. Smart contracts also determine how the token can be purchased, traded and sold in a compliant fashion, and since they are blockchain based, the transactions are immutable, traceable, and fully transparent.

2. Token distribution mechanisms must be Shariah compliant.

Any distribution method adopted in the token sales must be Shariah compliant.

3. Features and facilities of any exchange must be Shariah compliant

When a token is being offered via an exchange such as IEOs and IDOs, the features and facilities of the exchange should be reviewed to ensure the token is sold in a Shariah compliant manner

Conclusion

Crypto-assets can be defined as "a digital representation of value that uses cryptographic encryption techniques". There are different taxonomies of crypto-assets; one taxonomy categorises crypto-assets into crypto-coins, utility tokens, security tokens, asset-backed tokens and hybrid tokens. A token is a representation of something in its particular ecosystem. It may represent value, stake, voting right, or anything. These tokens are offered to the public via offerings. ICOs were the earliest form of token offerings and can be considered as blockchain crowd sales. Due to the number of scams present in ICOs, the industry evolved into offering STOs, which are offerings for security tokens. The STO is an attempt by founders to issue a token offering that remains compliant with local legislation, depending on the specific geographies from which it is taking investment. This usually means registering the STO with local regulators as a securities' offering. The industry further developed IEOs which are fundraising events administered by an exchange. In contrast to an ICO where the project team themselves conduct the fundraising, an Initial Exchange Offering means that the fundraising will be conducted on a well-known exchange's fundraising platform, such as Binance Launchpad. The latest iteration of the offerings is the IDO, a decentralised exchange. All token offerings require Shariah screening. A number of Shariah screenings were suggested in this paper. Due to the number of scams in the crypto markets, an anti-scam screening is also imperative if there are no regulatory bodies overseeing the offerings. Thereafter, a screening of the business activity should commence to ensure the core activity of the project is Shariah compliant. An additional filter and screening is proposed in this paper termed as token screening. This screening considers the nature of the token and suggests the appropriate Shariah principles governing such a token. Finally, for equity tokens, the financial ratios screening is proposed. As the crypto industry continuously evolves, it is imperative for Shariah practitioners to keep up with pace of the various evolutions and developments for sound guidance to the sector.

SCHEDULE 1

Principle 1

The token must be existing at the time of the token offering and sale.

This principle applies to the sales of all tokens. A token which has not been created as of yet cannot be sold unless the contract is designed with special measures under an Istisna' agreement.

Principle 2

The token must be in the ownership of the issuing company at the time of the token offering.

A token which is not yet in the company's ownership cannot be traded. If it is traded, the sale is void unless the contract is designed with special measures under a Salam agreement.

Principle 3: The token must be in the physical or constructive possession of the company at the time of the token offering.

A token must be in the possession of the company wishing to sell it via an offering. This ensures that the risk of the token is with the seller at the time of trading which is a key principle in *Fiqh al-Mu'amalat*.

"Constructive possession" means a situation where the possessor has not taken the physical delivery of the commodity, yet the commodity has come into his control, and all the rights and liabilities of the commodity are passed on to him, including the risk of its destruction.

Principle 4

The sale of the token must be instant and absolute.

A token sale attributed to a future date or a sale contingent on a future event is void. If the parties wish to effect a valid sale thereafter, they will have to effect it afresh when the future date comes or the contingency actually occurs.

Principle 5

The sale of the token must be unconditional.

A token offering cannot be conditional on anything. A Shariah compliant sale demands that the transfer of ownership is unconditional. This prevents disputes and uncertainty. This principle also bans any form of gambling mechanisms and games in token offerings.

Principle 6

The token must be categorised as *Mal Mutaaawwim*

A token must be screened in order to ensure it qualifies as *Mal Mutaqawwim*. This means that the token must be a valid asset of sale and must be lawful in Shariah. This ensures that the token is not a derivative and nor is it something which cannot be traded in Islamic law. This screening must be done by Shariah scholars who are trained in understanding the complexities of *Mal Mutaqawwim*.

Principle 7

The token cannot be designated for a non-Shariah compliant purpose and utility.

Any token whose primary utility is non-Shariah compliant cannot be traded or sold via a token offering.

Principle 8

The token must be clearly known to the buyers.

This principle ensures that there is transparency and a level playing field between the parties. All the key information of the token should be readily available for potential buyers in any token offering.

Principle 9

The price of the token must be clearly known and certain at the time of selling the token.

The token price must be known and clear to the buyers in any token offering.

Principle 10

The delivery of the token to the buyer must be certain and should not depend on a contingency or chance.

Once the token has been sold, the delivery of the token cannot be contingent on any game or chance. Therefore, no mechanism is permitted whereby the token delivery is subject to further chance or problem-solving mechanism.

ABOUT SRB

Since our humble beginnings more than 13 years ago we've grown to include more than 100 companies across a host of industries, thousands of transactional programs, multi-disciplinary teams and a combined scholarly workforce of 35 Sharia Scholars from 19 countries. And we're not done yet: our Sharia Advisory and Sharia Audit services will continue to improve—serving local and international businesses to help them maintain and manage Shari'a compliance.

We've been preparing our clients for a new world in which Sharia Advisory rapidly becomes the currency of choice. From faster Certification programs, to direct Sharia Supervisory access, and perhaps most critically, navigating through the economic structures of clients offerings within a matter of days. We've have been working hard to help clients like you capitalize on opportunities in global Islamic financial markets.

Today, scores of institutions across nations, covering public and private businesses, commercial and corporate funds, Sukuks and Islamic equity markets, IPO's and Investment Banking Practices rely on us to run their companies, funds and transactions.

The future of Sharia Advisory and Audit is exciting and we are very lucky to be a part of this business!

ABOUT OUR PEOPLE



RESEARCH AUTHOR

MUFTI FARAZ ADAM

SHARIAH CONSULTANT AT SRB

- > Completed his Islamic studies in the six-year Alimiyyah degree at Darul Uloom Leicester.
- > Specialised in Islamic law and graduated as a Mufti in South Africa at Darul Iftaa Mahmudiyyah, Durban.
- > Accredited with: Masters of Arts in Islamic Theology with specialisation in Juristic verdicts (Iftaa) and a Diploma in Islamic Finance.
- > Completed a Master's Degree in Islamic Finance, Banking and Management at Newman University in 2017.



PEER REVIEWER
SHAIKH MUHAMMAD AHMAD SULTAN
SHARIAH ADVISOR AT SRB

- > Over 10 years of experience as a Shari'a consultant and academic in various parts of Islamic finance.
- > Worked predominantly in the financial services along with retail and investment banking and has expertise in corporate advisory and real-estate funds.
- > He procured his Masters (A'alamiyah) in Fiqh and Usool ul Fiqh from Jami'ah Ahsan Ul Uloom and procured Bachelors in Islamic sciences from Jamia Dar-ul-Uloom.



PEER REVIEWER

MUFTI ISMAIL DESAI
INDEPENDENT COMPLIANCE EXECUTIVE

- > MA, Islamic Banking, MA, Islamic Theology and BSc Banking from the London School of Economics (LSE)
- > Chairman and advisor to various banks, financial institutions and global funds
- > Appeared on various prestigious media such as Bloomberg and Reuters
- > Created the first ever Shariah Compliant models for leveraged/structured finance and currency trading

Disclaimer

This is a preliminary Shariah research and is by no means a definitive conclusion or fatwa on the aforementioned subject. This paper was written to develop knowledge and research on this complex subject from a Shariah perspective. We hope that this paper will prompt and engage global Islamic finance bodies, Shariah scholars and Muslim economists to analyze, comment and build upon the arguments expressed.

Additionally, the views, analysis and opinions expressed in this article are those of the author and Peer Reviewers and do not necessarily reflect the official policy or position of Shariyah Review Bureau or scholars on its network or other practicing scholars of the Islamic Industry. Moreover, the information contained or quoted in this paper are derived from public and private sources which we believe to be reliable and accurate but which, without further investigation, cannot be warranted as to their accuracy, completeness or correctness. Shariyah Review Bureau or its employee, are not liable for any error or inaccuracy contained herein, whether negligently caused or otherwise, or for loss or damage suffered by any person due to such error, omission or inaccuracy as a result of such supply. Shariyah Review Bureau will incur obligation of no kind arising from this document and will not be held responsible for any use of this document.