A PROPOSED FRAMEWORK OF ISLAMIC INHERITANCE AND ESTATE PLANNING OF DIGITAL ASSETS: THE MALAYSIAN CASE OF CRYPTO ASSETS

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ABSTRACT

Purpose — This paper aims to propose a framework of Islamic estate planning of crypto assets in Malaysia.

Design/Methodology/Approach — The paper used an interview method to obtain information related to Islamic estate planning of crypto assets. Semi-structured interviews were conducted with informants of five different backgrounds including lawyers, estate planners, Sharīʿah experts, digital asset exchange (DAX) operators, and crypto owners. The data gathered was analysed using thematic analysis to construct the framework of Islamic estate planning of crypto assets.

Findings — The paper identifies important prerequisites of Islamic estate planning of crypto assets. Further, a framework of estate planning of crypto assets is developed based on the information gathered from all related stakeholders. It is posited that the Securities Commission Malaysia (SC) has a vital role to play in safeguarding the financial interests of digital asset holders and their beneficiaries and that implementation of this framework would align with and uphold the objectives of Sharīʿah (*maqāṣid al-Sharīʿah*).

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Originality/Value — This paper presents a framework of Islamic estate planning of crypto assets, it being one of the first studies to do so from the Islamic perspective, which is not only useful and relevant for Malaysians (Muslims) but also for other countries.
Research Limitations/Implications — The first limitation of the paper is that the framework is developed based on a qualitative method. There is no evidence of its validity, which is a gap that can be explored in the future. Second, it involves the perceptions of five types of respondents, which may be broadened to other related stakeholders such as regulators—i.e., Securities Commissions or any ministries—in future studies.
Keywords — Crypto asset, Digital asset, Intergenerational transfer, Islamic estate planning, Sharīʿah
Article Classification — Research paper

INTRODUCTION

Malaysia mirrors the global trend in adoption of digital assets such as crypto assets with an impressive uptake in adoption of crypto assets. Forty per cent of the Malaysian population owned crypto assets in the first quarter of 2024 as reported by Oppotus (2024). This signifies the nation's growing engagement with the new asset class and indicates a burgeoning interest and confidence in digital assets among Malaysian investors and the public. The financial value of digital assets traded in Malaysia has also skyrocketed, illustrating the profound impact of the new asset class. For instance, Securities Commission Malaysia's (SC) Annual Report 2023 shows that digital investment management grew significantly, with assets reaching RM1.6 billion by the end of year 2023, a 400-fold increase since 2018 and over 1 million accounts have been created since it started (New Straits Times, 2024).

A universally accepted legal definition of crypto assets—commonly referred to as cryptocurrencies, digital assets, or virtual assets—has yet to be achieved, complicating global regulatory efforts (Ismail Nawang & Abd Ghani, 2021; Narain & Moretti, 2022). Major financial institutions such as the Financial Stability Board (FSB) and the World Bank have provided frameworks for understanding these assets, emphasising their reliance on cryptography and distributed ledger technology (Financial Stability Board, 2022; Feyen *et al.*, 2022). In Malaysia, the definition and regulation of crypto assets are clearly delineated under the Capital Markets and Services (Prescription of Securities) (Digital Currency and Digital Token) Order 2019 with reference to the Capital Markets and Services Act 2007. Classified as digital currencies or tokens, these assets fall under the jurisdiction of Securities Commission Malaysia (SC) and Bank Negara Malaysia (BNM) (BNM, 2018). The regulatory framework aims to ensure fair trading practices and protect investors in the rapidly growing crypto market.

The rise of crypto assets has not only spurred the development of new financial intermediaries but also highlighted the transformative potential of blockchain technology. Blockchain enhances transaction efficiency and security by solving the double spending problem and preventing the fabrication of digital tokens (Katuk, 2019; Rijanto, 2020). This technological backbone has made crypto transactions more transparent and trustworthy.

The integration of crypto assets into real-world transactions reflects their growing mainstream appeal. In Malaysia, this is further compounded by their acceptance under the Sharīʿah (Islamic law). The Shariah Advisory Council of Securities Commission Malaysia (SAC SC) has recognised both digital currencies and digital tokens as being compliant with Islamic principles, thus broadening their appeal among Muslim investors (Saleh *et al.*, 2020; Securities Commission Malaysia, 2022).

As digital assets become more prevalent as mentioned above, concerns about digital inheritance and the future of virtual property ownership are coming to the fore. Many crypto asset owners are considering the implications of their digital wealth post-mortem, highlighting the need for proper estate planning to ensure that their assets are not lost (Davydova *et al.*, 2021; Murugiah, 2021). This evolving aspect of digital asset management underscores the broader impact of crypto assets on traditional financial practices and legal frameworks.

The rise and growing popularity of crypto assets has presented substantial challenges within Islamic finance, particularly concerning inheritance. Researchers observed varied and disunified Sharīʿah acceptance of crypto assets among global scholars, with some deeming them permissible and others rejecting them (Billah, 2019; Che Rani & Salleh, 2019; Mohd Noh, 2022). In Malaysia, the Sharīʿah opinions on crypto assets issued by the State Fatwa Committees

of Perlis, Perak and Selangor show divergent views and are not uniformly aligned with SAC SC's ruling (Kamis *et al.*, 2022). The lack of consensus has created confusion and delays in the inheritance of crypto assets, and the absence of an inheritance guideline in the Sharīʿah resolution by SAC SC exacerbates the issue, as noted by Kamis and Abd Wahab (2022).

Besides, the Malaysian government's minimalist regulatory approach to avoid stifling innovation has led to inadequate legal protection for inheritance of crypto assets (Ismail Nawang & Abd Ghani, 2021). There are concerns about the determination of the jurisdiction in estate administration, given the highly volatile nature of crypto assets as well as disputes over the distribution of assets in crypto asset units or their equivalent value in Malaysian ringgits. Moreover, fiduciary access to crypto assets upon the owner's death is another contentious issue. The anonymous nature of crypto transactions and the necessity for private keys to access these assets pose significant risks to identity theft and fraud (Beyer & Nipp, 2019; Mali & Prakash, 2020).

To address these challenges, it becomes imperative to develop an enhanced framework for the estate planning of crypto assets that specifically caters for the needs of Muslim individuals in Malaysia. Such a framework should take into account the principles of Islamic inheritance laws, provide guidance on the proper distribution of digital assets, and ensure compliance with religious obligations. By establishing an enhanced framework for estate planning of crypto assets that considers the specific requirements of Muslim individuals, Malaysia can provide a comprehensive and inclusive solution that respects both legal and religious aspects. This would not only protect the rights and interests of Muslim individuals but also promote confidence and trust in the digital asset ecosystem, enabling Muslims to fully participate in the digital economy while adhering to their religious beliefs.

Hence, the objective of this paper is to develop a new framework for Islamic estate planning of crypto assets in order to foster the protection of inheritance rights in digital assets in Malaysia. It aims to promote confidence and trust in the digital ecosystem by establishing the framework for estate planning of crypto assets and to promote a culture where inheritance planning is part of the business and operations pertaining to digital assets.

Accordingly, the paper is structured as follows: the next section provides a thematic literature review on estate planning of crypto assets; subsequently, the research methodology used is discussed, followed by explanation of findings. The proposed framework is then developed, and the conclusion is provided in the final section.

LITERATURE REVIEW

Inconsistencies in Sharīʿah Perspectives on Crypto Assets

Inconsistencies in Sharīʿah perspectives regarding crypto assets may significantly delay their distribution to heirs in the event of the owner's demise. Abdul Rahman and Hasan (2020) highlight that the lack of standardised fatwas is a contributing factor to the delay in inheritance distribution in Malaysia. Previous researchers have noted that the Sharīʿah acceptance of crypto assets among global scholars is varied and lacks uniformity (Billah, 2019; Che Rani & Salleh, 2019; Mohd Noh, 2022). Prominent Sharīʿah scholars such as the Grand Mufti of South Africa and Islamic finance expert Dr Mohd Daud Bakar have deemed crypto assets as permissible under Sharīʿah, provided that specific parameters are observed (Che Rani & Salleh, 2019; Bakar, 2019; Mohd Noh, 2022). Conversely, scholars from Egypt, Palestine, Kuwait, Turkey, and Indonesia oppose their permissibility, arguing that crypto assets do not meet the characteristics of money or

currency and therefore are not Sharīʿah-compliant (Billah, 2019; Che Rani & Salleh, 2019; Wartoyo & Haerisma, 2022).

In Malaysia, there are different Sharīʿah views on crypto assets. One view by the Shariah Advisory Council of the Securities Commission Malaysia (SC) and the State Fatwa Committee of Perak and Selangor allows crypto assets if they are issued by registered DAX operators in Malaysia. Meanwhile, another view by the State Fatwa Committee of Perlis only allows crypto assets such as bitcoin, regardless of the issuer. Kamis and Abd Wahab (2022) claimed that the different Sharīʿah views on crypto assets contribute towards creating legal ambiguity on this matter, further delaying inheritance processes. The inconsistency necessitates a comprehensive exploration to address the inheritance of crypto assets under Islamic law, as highlighted by Zul Kepli and Bustami (2021). The absence of specific Sharīʿah rulings on inheritance of crypto assets could lead to the misallocation of such assets.

Legal and Regulatory Challenges

The lack of comprehensive laws regarding the inheritance of crypto assets also presents a significant challenge in estate planning. Previous studies emphasise the absence of uniform global regulation on crypto assets, with legal frameworks varying widely (Conway & Grattan, 2017; Zalucki, 2020; Sylvester, 2021; Zul Kepli & Bustami, 2021; Abd Aziz *et al.*, 2022). Countries such as El Salvador and the Central African Republic have accepted crypto assets as legal tender, whereas others regulate them as securities, commodities, or digital assets subject to taxation (The New York Times, 2021; CNBC, 2022). Some nations, such as Bolivia, Iran and Turkey, have banned crypto assets outright (Ehret & Hammond, 2021).

The Malaysian government's minimalist regulatory approach, in order to avoid stifling innovation and growth in the crypto assets sector (Ismail Nawang & Abd Ghani, 2021), has led to the lack of a legal framework to protect the digital assets of a deceased person and to provide for fiduciary access to the assets (Zul Kepli & Bustami, 2021). As can be seen in the case of Robert Ong Thien Cheng v Luno Pte Ltd & BitX Malaysia Sdn Bhd [2020] 1 LNS 2194 fluctuating prices of crypto assets can lead to disputes. Kamis *et al.* (2023) inferred that without specific laws or regulation for estate administration of crypto assets in Malaysia, the volatile value of crypto assets may cause significant issues in estate administration and distribution in the event the owner dies

Security and Accessibility Concerns

Inheritance of crypto assets faces additional challenges due to the high risk of identity theft and fraud (Mali & Parakash, 2020). Proper estate planning is essential to prevent the loss of crypto assets upon the owner's death, as transactions in the crypto ecosystem are anonymous, and access requires private keys (Beyer & Nipp, 2019; Shovkhalov & Idrisov, 2021). Traditional estate planning methods are insufficient for managing crypto assets, necessitating specific protocols for login credential (Genders & Steen, 2017).

Legal frameworks in various countries, such as the Revised Uniform Fiduciary Access to Digital Assets Act (RUFADAA) in the United States, provide models for regulating access to digital assets like crypto assets (Uniform Law Commission, n.d.). In Malaysia, however, no specific laws address crypto asset inheritance, underscoring the urgent need for legal reform (Zul Kepli & Bustami, 2021).

Estate Planning Strategies for Crypto Assets

Effective estate planning for crypto assets must consider their unique characteristics, such as the requirements for private keys and the decentralised nature of transactions. Traditional wills may not suffice, as including credential information in public records poses security risks (Beyer & Nipp, 2019). Alternative strategies include storing private keys separately from the will, using encrypted electronic storage, or combining traditional and technological methods to ensure secure transfer of access information (Saleh *et al.*, 2020; Paulger, 2022).

Establishing a trust offers another estate planning method, though it carry risks related to the volatility of crypto assets' prices and the potential for unauthorised asset sales by trustees (Saleh *et al.*, 2020). Technological solutions, such as blockchain-based storage for private keys, can facilitate the transfer of crypto assets information to designated heirs upon submission of the death certificate (Singh *et al.*, 2022). Online storage tools also allow the configuration setting to transfer access information, subject to the service provider agreement and subscription fees (Klasicek & Vucemilovic, 2019).

Global Perspectives on Crypto Assets Inheritance

Crypto asset inheritance laws vary globally. In Australia and Germany, crypto assets are considered part of the digital estate and are subject to inheritance taxes (Australian Taxation Office, 2021; Bichat, 2023). In Japan, although crypto assets are recognised legally, there are no specific laws governing their inheritance (Atsushi, 2020; Nagase *et al.*, 2022). Singaporean courts have acknowledged crypto assets as inheritable, setting a legal precedent for their inclusion in estate planning (Lim & Nah, 2023).

The lack of specific laws and regulations in Malaysia that align with global practices highlights the need for a comprehensive framework to address the unique challenges of crypto assets' inheritance. This framework should ensure the continuity of ownership, prevent asset loss, and protect against identity theft, thereby supporting the sustainable transfer of digital wealth to future generations (Beyer & Griffin, 2011). Hence, developing a comprehensive framework in Malaysia is essential for protecting digital assets, ensuring their fair distribution, and upholding Sharīʿah principles in inheritance law.

From the above literature, it is found that despite the growing relevance of crypto assets in the modern financial landscape, there exists a significant inconsistency in Sharīʿah perspectives regarding their permissibility and inheritance. This inconsistency contributes to delays in crypto assets' inheritance, particularly in Malaysia, where the lack of a standardised fatwa exacerbates legal ambiguities. Global scholarly opinions on crypto assets vary widely, with some prominent scholars deeming them permissible under certain conditions, while others consider them non-compliant with Sharīʿah principles. This divergence is reflected within Malaysia, where differing opinions from state fatwa committees further complicate the legal landscape. The absence of a unified Sharīʿah ruling on inheritance of crypto assets undermines the traditional Islamic inheritance system (*farāʾiḍ*), leading to potential improper distribution of such assets. Therefore, there is an urgent need for a comprehensive exploration and standardisation of Sharīʿah rulings on crypto asset inheritance to address these inconsistencies and ensure equitable and compliant asset distribution.

METHODOLOGY

The aim of this study is to develop a new estate planning framework for crypto assets in Malaysia. This study uses a qualitative research method by conducting structured interviews, followed by thematic analysis of them. Several processes are involved in this study to develop the framework, including sampling design, the development of structured interview questions, the coding process and the theme development process. This study tends to make analytic generalisations whose aim is to develop a new estate planning framework for crypto assets.

The sampling design of this study is based on Onwuegbuzie and Leech (2007), Malterud *et al.* (2016), and Cunningham *et al.* (2015). This study uses the stratified and purposive sampling technique, in which the informants are stratified into crypto owners, lawyers, estate planning providers and digital asset exchange (DAX) operators. As this framework involves Muslims as part of the owners of the assets, Sharīʿah experts are also included as one category of informants in this study. All types of informants chosen for the interviews are specialists in their respective organisations with knowledge of the required particulars. They provided the precise details needed for a comprehensive study. **Table 1** displays the list of respondents in this study.

Table 1: List of Respondents and Their Affiliation

No.	Role	Affiliation	Code
1	Sharīʿah expert	Former Chairman, Shariah Advisory Council, Securities Commission Malaysia	R1
2	Sharīʿah expert	Professor in Islamic finance	R2
3	Sharīʿah expert	Former Head of Shariah department, regulatory institution of capital market in Malaysia	R3
4	Judge	Syariah High Court	R4
5	Lawyer	Lawyer, Ikbal Salam & Associates	R5
6	Lawyer	Lawyer, Zamri, Zaini & Nazliyah	R6
7	Lawyer	Lawyer, Termizi & Co.	R7
8	Judge	Civil High Court	R8
9	Estate planner	Wasiyyah Shoppe representative	R9
10	Estate planner	As-Salihin representative	R10
11	Estate planner	MyPusaka representative	R11
12	DAX	MX Global representative	R12
13	DAX	Tokenize Technology (M) Sdn Bhd representative	R13
14	DAX	Luno Malaysia Sdn Bhd representative	R14
15	Crypto owner	Has owned crypto since 2014	R15
16	Crypto owner	Has owned crypto for more than 5 years	R16

Source: Authors' own

This study mainly focuses on the structured interviews which were conducted from May 2022 to March 2023. The structured questions in this study comprise three key elements related to the knowledge, experience and views on Islamic estate planning of crypto assets. The interview sessions were recorded with the informants' permission and lasted between one and one-and-a-half (1–1½) hours for each informant. The informants were informed earlier about the reason for their selection in this study and the objective of the interview sessions. The informants were also free to ask any questions to the researchers and to share their own experiences and views on Islamic estate planning of crypto assets.

In this study, the results from the interviews provided the inputs in developing the framework of Islamic estate planning of crypto assets. For validation purposes, the final step of

the analysis involved interviews with Islamic estate planning experts. Two experts highly regarded in the field of Islamic estate planning in Malaysia were chosen from industry and academia.

FINDINGS

As the study aims to develop a framework for inheritance and estate planning of crypto assets in Malaysia, structured interviews with two crypto owners, three DAXs, three estate planners, five legal experts, and three Sharīʿah experts were conducted. **Table 2** shows the results of the interviews with all the respondents.

Inheritance of estate is not unique for Muslims. Unlike the case of non-Muslims, there are conditions for an asset to be considered inheritable for Muslims, including its recognition as *māl* (property) in Islam.

Based on the interviews with the Sharīʿah experts, crypto assets basically fulfil the conditions for recognition as an asset. That being one of the key requisites for inheriting an asset, Muslims should be allowed to inherit crypto assets, provided they are proven to have value in court (Respondent R4). This is where the recognition of crypto assets by the related authorities (in this case, the Department of Islamic Development Malaysia (JAKIM), State Fatwa Committee and Syariah court) is the main concern that needs to be resolved. This is especially important for Muslim owners as the decision made on inheritance will be based on this decision, as mentioned by respondents R4, R5, and R6. For instance, respondent R6 highlighted the following:

> Majlis Kebangsaan Bagi Hal Ehwal Ugama Islam Malaysia (MKI) must issue its Sharīʿah view on crypto assets as the Syariah court will refer to its fatwa to make decisions.

With regard to the regulation of crypto assets and related matters, the SC is the sole regulator for digital asset service providers in Malaysia. However, there are no crypto inheritance regulations to protect consumers to date. According to respondents R15 and R16, the current practice of crypto owners is to share their account passwords with family members so they can gain custody of the crypto assets. However, the downside is that it may lead to other issues, such as identity theft, fraud, and conflict between heirs.

Hence, a specific regulation on crypto assets is required to ensure their protection. This is admitted by respondents R5, R6, R7 and R8. According to respondent R6:

> Nowadays, the law related to crypto refers more to BNM and SC's guidelines…but it does not touch on inheritance….The existing regulation is mostly with regard to funding (investing).

Hence, when asked about the need for specific regulations on crypto inheritance, most legal experts agree that a specific regulation should be developed or refined to ensure the smooth running of the distribution of the estate later. Nevertheless, respondent R7 stated that there is no need for specific regulations for crypto inheritance; rather, recognition of the asset to be listed as inheritance is more important. Respondent R5 added the role of the Syariah court:

> We need to prove to the Syariah court the existence of crypto assets. They must clearly exist and have value.

R6 echoed the same sentiment by saying:

> The Syariah court needs to be equipped with knowledge about this asset....I think the Jawatankuasa Fatwa Majlis Kebangsaan should come up with a fatwa on this since the Syariah court will refer to the fatwa to decide.

When it comes to determining the lock date to determine the value of the crypto asset, some respondents opined that the lock date should be the current market value (Respondent R5). However, according to the recent law on inheritance, the lock date should be the date of death (Respondents R6 and R8). The lock date must be determined because the crypto asset's price will fluctuate before the court's order is obtained (R4). An issue arises when the Distribution Section of the Director General of Lands and Mines (JKPTG), Amanah Raya or High Court requires the value of the crypto asset to be stated in the application for distribution of inheritance form (Respondent R7).

Respondents R9, R10 and R11 unanimously opine that the inheritance management of crypto assets should be the same as the existing management of tangible assets. Appointing an administrator would be the most important element in realising the distribution of crypto assets to the heirs. The appointment will be the most challenging part as it is difficult to blame the administrator of crypto assets for damages such as loss of asset, and so forth. Hence, the administrator should be someone who is trusted and is knowledgeable about the asset (Respondent R10). In realising the distribution of the asset, respondent R9 suggested that there should be an agreement among the stakeholders, such as the crypto owner, DAX and administrator.

The existing system does not require any party to take any action on inactive accounts that may arise due to the demise of the owner. In this case, it is suggested that the DAX should have an alarm system to detect inactive accounts which would require them to contact the heirs regarding the owner's status. Respondent R11 said:

> ...for example, if the account has been idle for seven years…at least the company should take the initiative to contact the heirs to ask about the owner's status, whether he is alive or otherwise.

Based on the above findings, it is found that all respondents unanimously agreed that there is a need for inheritance and estate planning of crypto assets in Malaysia. The importance of Sharīʿah recognition and specific regulations to ensure the distribution of assets to the next generation is among the important conditions to realise this matter. Meanwhile, the respondents also highlighted the importance of awareness on Islamic estate planning of crypto assets as part of customer protection.

Table 2: Results of Interview

Theme	R1	R2	R3	R4	R5	R6	R7	R8
Crypto as asset	There is no definite definition of *māl* in the Qurʾān. Crypto can be considered as asset (*māl*) as it can be owned and has value.		Crypto fulfils the four features of *māl*: (i) has value; (ii) benefit based on custom; (iii) ability to be consumed and transferred; (iv) no Sharīʿah prohibition.	Crypto assets must be proven to have value in court to be considered *māl*.	Fatwa on crypto or expert evidence for the Syariah court to decide on the validity of crypto asset as *māl*.	Majlis Kebangsaan Bagi Hal Ehwal Ugama Islam Malaysia (MKI) must issue its Sharīʿah view on crypto assets as the Syariah court will refer to the fatwa to make decisions.	Crypto assets have value and are considered *māl*, although there are arguments about the existence of *gharar*.	Crypto assets that are permissible must be crypto assets that are recognised by SC.
Inheritance of crypto	Crypto can be inherited as long as it can be considered an asset (*māl*).	It depends whether it can be considered an asset.						
Regulation of inheritance of crypto					To date, there is no regulation on crypto asset inheritance.	To date, there is no regulation on crypto asset inheritance.	Regulation on crypto asset inheritance is still uncertain.	The existing legal framework of crypto is insufficient to recognise it as an asset. Legal recognition is required before its inheritance is done.
The need of specific regulation on crypto inheritance				The government needs to refine existing legislation. The Syariah court has to determine whether crypto assets can be regarded as *māl*.	The Syariah court has to determine whether crypto assets can be regarded as *māl*.	There is a need for specific regulations on crypto asset inheritance. The Syariah court refers to fatwa to decide whether crypto assets are *māl*.	There is no need for specific regulations on crypto asset inheritance. If the law recognises it, then it can be listed as an inheritance.	

Role of legal administrator of the deceased estate					Executor's duty is to open the safety box if he is appointed to do so. He must get a court order to administer the assets.	Legal administrator is obliged to follow applicable rules of law. Any misconduct shall be lodged to the court for legal action.	Legal administrator needs to liquidate the crypto assets and know how to do it.	
Challenges in crypto inheritance	Custodian and security		Capacity of the executor and heirs. Password sharing – legally prohibited. Declaration of crypto – tax issues.		Challenge on how to identify the existence of the crypto asset.	Do crypto assets qualify as inheritable assets? Can they inherit the asset if it is managed by an unregistered DAX? How do we prove cases such as identity theft?		The issue of dual court jurisdiction in determining whether crypto assets are estate – either in the Syariah court or civil court.

Theme	**R9**	**R10**	**R11**	**R12**	**R13**	**R14**	**R15**	**R16**
Crypto as asset							Use of crypto to buy goods and business.	Use of crypto for business and savings.
Inheritance of crypto	Can be managed by Amanah Raya Berhad, Small Estates Distribution Section of the Director General of Lands and Mines (JKPTG)	Same process as tangible assets. Liquidation process (to determine date, time for liquidation, and transfer of asset to heirs).	Same process as tangible assets – the most important thing is to appoint the *waṣī* (administrator)			Luno experience: heirs to fill up a form & provide the deceased death certificate and will document.	Through sharing of password with son.	Through hard wallet—to be accessed by wife.

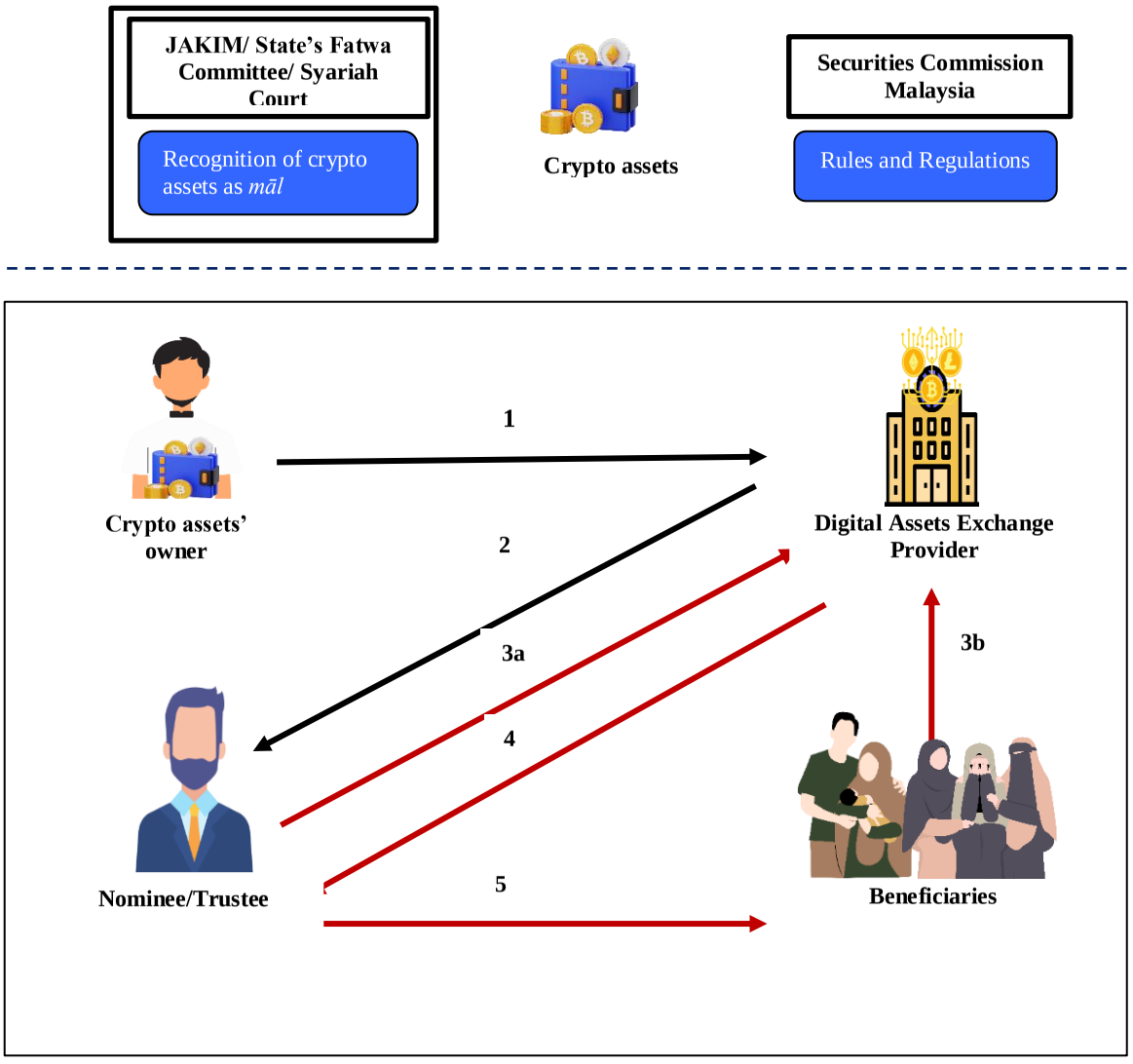
	or High Court provided that access to the asset is granted and letter to liquidate the asset is available.							
Regulation of inheritance of crypto								
Challenges in crypto inheritance	Access to the asset itself	To find suitable digital manager (knowledgeable and expert in digital assets, honest and trustworthy). Legal support for 'calling asset'. To locate assets of the deceased.	High risk as everything is digital. The need for LA (Letter of Administration) – otherwise, the asset cannot be liquidated. Administrator or heir does not know the account information.	Awareness of estate planning is quite low.	Customer awareness towards crypto inheritance. Appointment of administrator (double proof to confirm).		Security key	Security key
Suggestion	There should be a discussion between the owner, DAX and the administrator if the demand to inherit this type of asset is there.	To use *waṣiyyah* (will) as the most suitable planning instrument for crypto assets. Owner to share partial information for ease of locating the asset.	Owner to name administrator with the crypto company. DAX to have a system to detect inactive account – to contact heirs on the status of the owner.				Will (*waṣiyyah*) such as through lawyer or someone with integrity (*amānah*).	

Source: Authors' own

THE PROPOSED FRAMEWORK

Following the results and findings discussed earlier, the researchers propose the following framework for Islamic estate planning of crypto assets in Malaysia. The framework is validated by two experts who have both academic and industry backgrounds on the subject matter of this study. **Figure 1** displays the proposed framework for estate planning of crypto assets in Malaysia.

Figure 1: Proposed Estate Planning Framework for Crypto Assets



NOTE:

: Upon registering and opening a crypto asset account with a registered and licensed DAX

: After the demise of the crypto owner

(1) Upon registering and opening a crypto asset account with a regulated DAX, the crypto owner shall appoint a nominee/trustee to administer the estate.

(2) The DAX shall notify the nominated nominee*/appointed trustee* on his/her nomination/appointment by the crypto owner.
* Nominee for Muslim members is a *waṣī*/administrator to apportion the owner's crypto assets upon the crypto owner's death to the rightful beneficiary in accordance with Islamic Law. Upon receiving notification from the DAX, the nominee is required to sign up and open a crypto asset account with the regulated DAX.

(3a)/(3b) Any person, including the nominee/trustee or beneficiary, must present the crypto owner's death certificate or any legal documentation confirming the crypto owner's demise to the DAX.

(4) Upon receiving the death certificate of the crypto owner or any legal documentation confirming the crypto owner's demise, the DAX will transfer the crypto assets to the nominee/trustee's crypto wallet.

(5) For Muslims, the nominee/trustee is required to apportion the deceased crypto assets to the rightful beneficiary in accordance with Islamic law.
For non-Muslims, the nominee/trustee is the rightful owner of the deceased crypto asset.

Source: Authors' own

A prerequisite that needs to be cleared is the status and recognition of crypto assets as *māl*. To date, only Perlis and Perak have issued a religious opinion stating that zakat can be paid by using cryptocurrency. There is still no fatwa from other State Fatwa Committees in Malaysia regarding this matter. Hence, it can be concluded that the Sharīʿah status of crypto assets remains a grey area for the Fatwa Committees. A fatwa is important since the Syariah court will decide on crypto-related cases based on the Fatwa Committee's rulings. In this regard, the Department of Islamic Development Malaysia is also encouraged to discuss Sharīʿah rulings at the national level.

In Malaysia, SC recognises the value and ownership of digital assets. Hence, the asset is subject to the existing rules and regulations enforced in Malaysia. However, there is discussion on the acceptance of digital assets, particularly crypto assets, from the Islamic perspective. By holding the opinion of a group of Muslim scholars, crypto assets have value and benefit to society and are the valid subject of ownership. In this regard, in the case of the death of the owner, the assets should be administered pursuant to Islamic law, especially in Malaysia, according to the fatwa issued by the State Fatwa Committee or the Syariah court's decision.

For example, before the distribution of the assets to the heirs, there should be no arising issues pertaining to *hibah* (gift) or will. If there is, then such matters should be decided by the Syariah court prior to the distribution according to Islamic inheritance law.

Another prerequisite that should be addressed is the nomination and appointment of a trustee during the agreement concluded between the owner and DAX operators. As highlighted by Abd Wahab *et al.* (2023), Luno Malaysia Sdn Bhd. has provided Terms of Use related to the inheritance of crypto assets which should be followed by other DAXs. It should be clearly stated that the appointment of the nominee is only as a *waṣī* for the sake of administrative purposes if the owner is Muslim. However, for non-Muslims, it is subject to the intention of the owner, and normally the nominee is the recipient or beneficiary of the assets. It is also crucial to appoint and to have the details of the trustee.

As of February 2024, there are six registered DAXs in Malaysia, namely Luno Malaysia Sdn. Bhd., Tokenize Technology (M) Sdn. Bhd., MX Global Sdn. Bhd., SINERGY DAX Sdn. Bhd., HATA Digital Sdn. Bhd and Torum International Sdn. Bhd. These DAXs are regulated under the SC to ensure protection of the assets. Following the vigorous application process, the asset is protected whereby investors are able to seek redress with the SC. However, it is also possible in Malaysia to trade crypto assets with an unregistered DAX. The application of the proposed framework developed in this study is limited to the registered DAXs in Malaysia.

CONCLUSION AND POLICY IMPLICATIONS

As the adoption of digital assets and cryptocurrencies continues to grow, it is crucial to address the challenges associated with the inheritance of these assets. To ensure that the value of the crypto assets is preserved and passed on to designated beneficiaries, it is strongly recommended that the proposed estate planning framework of crypto assets be established as a guideline, best practice, or policy by SC.

The framework developed in this study suggests the following key elements:

1. Education and awareness: Develop educational resources and awareness campaigns to inform the public about the importance of estate planning of crypto assets and the steps they should take to protect their digital wealth.
2. Designation of beneficiaries during the first step of registering with the DAX operator: DAX operators should collect beneficiaries' information once an individual registers an account. Similarly, crypto asset owners should specify their intended beneficiaries for each crypto asset, and the DAX operators must explain the process of legally transferring ownership of these assets.
3. Clear identification of crypto assets: Encourage individuals to maintain an up-to-date inventory of their digital assets, including public and private keys, wallet addresses, and any related hardware or software and advise trustees or estate planners to include the asset in the estate plan.
4. Secure storage of critical information: Advise individuals to securely store essential information, such as private keys, seed phrases, and backup codes, using trusted methods like hardware wallets, safety deposit boxes, or encrypted digital storage solutions.

By implementing this suggested framework, the SC will play a vital role in safeguarding the financial interests of digital asset holders and their beneficiaries. This proactive approach will not only provide clarity and security for individuals but also contribute to the long-term stability and growth of the crypto asset market.

Moving forward, to safeguard the stability and sustainability of the digital economy in Malaysia, the legacy of digital assets must be protected, and their continuity must be assured. This paper proposed the death policy and framework for estate planning of crypto assets to the SC as the latter is empowered by the Capital Markets and Services Act 2007 (Section 377) to issue guidelines or practice notes as deemed necessary on the matter. It is affirmed that the implementation of this framework aligns with and upholds the objectives of Sharīʿah (*maqāṣid al-Sharīʿah*) in the protection of wealth in particular.

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DECLARATION

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- Norliza Katuk: Interviews, presentation of findings, write up.
- Mohammad Azam Hussain: Interviews, analysis, write up.
- Zairy Zainol: Interviews, review, write up.
- Selamah Maamor: Interviews, methodology, write up.
- Nur Syaedah Kamis: Interviews, editing, write up.

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The authors declare that they have no known competing financial interest or personal relationships that could have influenced the research work.

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Ethical Statement

The authors declare that they understand the Ethical Guidelines and have adhered to all the statements regarding ethics in publishing. They also confirm that this paper is original and has not been published in any other journal nor is under consideration by another publication.

Data Availability

None

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

Appendix

None