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Legal Challenges and Framework for Cryptocurrency Inheritance in Indonesia

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ABSTRACT

The rapid advancement of digital technology has introduced new challenges for inheritance law, particularly with regard to digital assets such as cryptocurrencies. In Indonesia, the legal framework has yet to fully address the unique issues posed by the inheritance of digital assets. Although cryptocurrencies are classified as intangible movable property and can be inherited under the Indonesian Civil Code (KUHPerdara), specific regulations are lacking, leaving uncertainties around the transfer of these assets upon death. Moreover, from the perspective of Islamic inheritance law (faraid), cryptocurrencies can be considered as wealth (maal) and must be distributed according to Islamic principles. However, technical challenges, such as access to private keys and the decentralized nature of cryptocurrencies, complicate their transfer. This paper explores the legal challenges surrounding cryptocurrency inheritance in Indonesia, combining both civil and Islamic legal perspectives. The study concludes that Indonesia needs a comprehensive legal framework that addresses the inheritance of digital assets, ensures compliance with Islamic principles, and incorporates modern technical solutions for secure and lawful asset transfer.

KEY WORDS: Digital Assets, Cryptocurrency, Inheritance, Islamic Law, Faraid.

1. Introduction

Digital assets are becoming increasingly valuable in modern society. Although in Indonesia, this topic has only recently gained popularity among legal professionals, the trend has been developing for decades abroad. In 2011, the Center for Creative and Social Technologies (CAST) in the UK (Goldsmiths, University of London) published a study on internet use in the UK titled "Generation Cloud." The study found that Britons had at least £2.3 billion worth of digital assets stored in the cloud. Additionally, 24% of UK adults believed they owned digital assets worth more than £200 per person (Rackspace Hosting 2011). PricewaterhouseCoopers (PwC) conducted a similar survey in 2013,

revealing that individuals valued their digital assets at £25 on average (PwC 2013). Similar trends were observed in other European countries (Nemeth et al. 2017) and in the United States. Moreover, discussions around digital inheritance have emerged among internet companies, users, and government entities in China (Zhao and Yang 2012).

Given the size of this market segment, digital asset owners are increasingly concerned about what happens to their Facebook, Twitter, LinkedIn, and other social media accounts after they pass away, as well as how assets like tokens and cryptocurrency can be inherited. This issue is becoming even more urgent due to the potentially catastrophic consequences of losing passwords for

accessing digital asset repositories and platforms (Sarnek 2016). In Indonesian legal literature, digital asset inheritance has not yet been explicitly regulated. However, some legal experts suggest that digital assets can be viewed as part of an individual's estate that can be passed down to heirs under the general inheritance laws of the Indonesian Civil Code (KUH Perdata).

Legal scholars in Indonesia have proposed that digital assets should be treated as inheritable property, though this approach remains narrow. Today, Indonesian lawyers, notaries, and citizens are facing increasing questions about the inheritance of specific digital assets, such as cryptocurrencies, tokens, social media accounts, and virtual gaming assets. In recent years, many countries have engaged in detailed discussions about the possibility of universal succession for social media and other digital assets. The term "digital inheritance" has emerged in foreign legal literature to address this evolving legal challenge, and Indonesia may need to consider developing regulations in this area to address the growing concerns around digital assets.

From the perspective of Islamic inheritance (*faraid*), the issue of digital assets adds an additional layer of complexity. In Islam, inheritance is guided by specific rules regarding the division of wealth among heirs. Digital assets, such as cryptocurrency or intellectual property, could theoretically fall under the category of wealth (*maal*) that must be distributed according to these rules. Since Islamic law emphasizes justice and equitable distribution, questions arise about how to handle the transfer of passwords, access to accounts, and the valuation of intangible digital assets. Thus, there is a need for further research and possibly new fatwas to ensure that the inheritance of digital assets is in line with both Indonesian law and Islamic principles. This alignment will help address the concerns of Muslim families who seek to manage their digital inheritance in accordance with religious teachings while also navigating the complexities of modern digital ownership.

The existing legal frameworks, both national and religious, have yet to fully address the unique challenges posed by digital assets, including access, valuation, and transfer of ownership. Therefore, this article aims to highlight the importance of developing a legal framework for the inheritance of digital assets in Indonesia, drawing on both national law and Islamic principles. By providing a comprehensive analysis of these issues, the article seeks to contribute to the broader discourse on how digital inheritance can be managed in a way that aligns with contemporary legal needs and religious obligations.

2. Methods

This research employs a normative juridical method, incorporating a statutory approach and a conceptual approach. The normative juridical method is used to analyze various legal regulations related to the inheritance of digital assets, focusing on Indonesian national law, such as the Indonesian Civil Code (KUH Perdata), as well as Islamic law concerning the distribution of inheritance (*faraid*). The statutory approach is utilized to explore and understand the relevant regulations and any legal gaps concerning digital asset inheritance. Meanwhile, the conceptual approach addresses the nature of digital assets, identifying the specific characteristics and challenges in inheriting assets like cryptocurrency, social media accounts, and tokens. Literature reviews from international studies and legal experts, including Islamic fatwas on inheritance, will strengthen the analysis. The research will also consider how other countries manage digital inheritance, with an eye toward adapting such practices within the Indonesian legal framework.

In addition to the normative juridical method, this study employs a comparative law method, examining the practices and regulations surrounding digital asset inheritance in various countries. By comparing legal systems, including those in the United States, the United Kingdom, China, and several European nations, this research seeks to understand how different jurisdictions handle digital asset inheritance. This approach aims to identify applicable strategies that can be adapted to the Indonesian legal system. The comparative method also considers digital assets' legal status, privacy issues, and inheritance processes, particularly for cryptocurrencies and virtual assets, in different countries.

Through the comparative method, the research will draw comparisons between the common law and civil law systems in addressing digital assets. It will also explore how Islamic law can be integrated into the context of digital inheritance in Indonesia. The insights gained from these comparisons will inform recommendations for a more comprehensive regulatory framework on digital asset inheritance in Indonesia, ensuring alignment with both national law and Islamic principles.

3. Discussion

a. The concept of digital assets

The digitization of the economy has introduced new types of assets, collectively referred to as digital assets. However, there is no consensus in current literature on what exactly constitutes a digital asset. Key characteristics often highlighted include their existence in "binary" form and their real or potential value. These traits are reflected in the term "digital assets," but they alone are insufficient to definitively classify binary-based objects as digital assets. According to various sources, digital assets encompass not only tokens and cryptocurrencies, but also Big Data, domain names, social media accounts, virtual gaming property, and digital content such as information stored online (e.g., text, video, audio, graphics, animations). However, this categorization is not always considered reasonable.

The classification of a digital object as an asset largely depends on the legal definition of digital assets found in the Revised Uniform Fiduciary Access to Digital Assets Act (RUFADAA 2014). Section 870(h) of the Act defines a digital asset as an electronic record in which an individual holds a right or interest, excluding any underlying assets or liabilities unless they themselves are electronic records. A "record" refers to information that is stored on a tangible device or an electronic medium and can be accessed in a perceptible form. Based on this definition, a digital asset can be broadly understood as any electronically stored and transferable item that can be owned and has associated ownership and usage rights (Hoffman, 2020).

From the perspective of Indonesian law, there is currently no comprehensive regulation that specifically defines or governs digital assets. However, one notable intersection of Indonesian regulations with digital assets is the allowance of cryptocurrency as a commodity for trading by the Commodity Futures Trading Regulatory Agency (Bappebti). This is regulated under Bappebti Regulation Number 5 of 2019 concerning the Technical Provisions for the Physical Market of Crypto Assets in Futures Exchanges, which has undergone several amendments. This regulation establishes the framework for the legal trading of crypto assets as commodities, but it does not comprehensively address broader issues related to ownership, inheritance, or the legal standing of other types of digital assets, such as social media accounts or virtual gaming property.

The scope of what constitutes a digital asset often depends on the purpose of the classification. When it comes to protecting rights to digital assets by limiting access, it may be beneficial to define digital assets as broadly as possible to ensure greater security. However, the legal regulation of assets like tokens and cryptocurrencies requires more specific provisions that address their financial nature. Indonesian legal scholars have noted that while the general civil code may offer some protection, the complexity of digital assets demands a more nuanced legal framework to handle issues such as ownership, transfer, and inheritance.

Other researchers have proposed different classifications for digital assets based on varying purposes. For instance, (Ruan, 2019) categorizes digital assets into types such as networked system assets, software assets, hardware assets, service assets, robotic assets, data and metadata assets, and digitally-enabled devices. When conventional civil rights objects take on digital forms, unique legal issues arise. In such cases, recognizing them as digital assets is often justified. However, it is important to differentiate between a broad and a narrow understanding of digital assets. Broadly, any property in digital form can be considered a digital asset. In a narrower sense, digital assets refer to new economic objects created through digital technology.

Distinguishing between digital assets in the narrower sense is crucial to identifying new types of property that require specific legal frameworks. This includes tokens, cryptocurrencies, Big Data, domain names, social media accounts, and virtual gaming property. To maintain the stability of these assets' property circulation, it is necessary to create a specialized legal regime, either by adapting existing civil law or by formulating new regulations in Indonesia. To address these challenges, it is important to clarify the legal nature of digital assets and differentiate them from already established legal concepts that now exist in digital form. This distinction will help develop appropriate legal frameworks and propose specialized regulations for certain types of digital assets in Indonesia, building upon existing frameworks such as Bappepti's regulation of crypto assets.

b. Digital Inheritance

The Civil Code (KUHPerdata), which governs inheritance laws in Indonesia, recognizes that only assets classified as property—whether tangible or intangible—can be inherited. However, the rapid growth of digital assets, such as cryptocurrencies, social media accounts, and other online properties, presents a significant gap in the existing legal framework. Although digital assets could potentially be classified as intangible movable property under the current inheritance laws, this alone is insufficient. Specific regulations are needed to ensure legal certainty, fairness, and ease in transferring digital assets to heirs, considering the unique characteristics of digital ownership.

One of the key challenges in digital inheritance is access and security. Digital assets, particularly cryptocurrencies, are controlled by private keys, and without these keys, heirs may be unable to access or transfer them. The decentralized and secure nature of blockchain technology further complicates the situation, as losing access to private keys can result in the permanent loss of digital assets. This emphasizes the urgent need for a legal framework that addresses these security concerns and facilitates the smooth transfer of digital assets after death.

Globally, the concept of digital inheritance is still evolving, with no unified definition or legal regime. In foreign literature, digital inheritance typically refers to the transfer of digital assets like

cryptocurrencies, emails, social media accounts, and other online properties through universal succession. However, not all digital objects are automatically considered inheritable. Only those with personal, economic, or social value to the deceased are typically included in the estate. This lack of clarity further complicates inheritance processes, as different types of digital assets may require distinct legal approaches.

In Indonesia, Bappepti Regulation No. 5 of 2019 recognizes cryptocurrency as a tradable commodity, but there is still no specific regulation governing its inheritance. As digital assets continue to grow in importance, Indonesia needs to develop a comprehensive legal framework that addresses the inheritance of these assets. Such a framework should not only define and classify digital assets but also establish clear processes for their transfer upon death. It must also take into account the unique legal challenges posed by digital assets, such as privacy, intellectual property, and data security.

In conclusion, digital inheritance involves the transfer of digital assets through universal succession. However, to ensure a smooth and legally sound process, Indonesia must establish a legal framework that distinguishes between different types of digital assets and addresses the challenges posed by digital ownership. This would allow digital assets to be inherited in a way that aligns with existing inheritance laws while accounting for the specific complexities of the digital age.

c. Types of digital inheritance

Modern individuals have access to a wide range of platforms and tools that enable the creation, acquisition, and transfer of digital objects in electronic or binary form. Legally, these digital objects can be categorized into several groups based on their inheritability: 1) personal accounts on social networks and digital media sites (e.g., Spotify, Netflix), multiplayer virtual games, and domain names; 2) content on social media pages (e.g., posts, photos, videos) and cloud storage (e.g., music, videos, and photos, either created by the individual or acquired through a license), and software; and 3) other digital objects on digital platforms that require login credentials for access, such as cryptocurrency wallets and tokens. These types of digital assets are considered valuable due to the access they provide to an individual's property (Marchisotti 2016).

The distinction between different legal understandings of digital assets varies by region. For example, in Russia, the focus tends to be on the "tokenization" of traditional property, where digital assets are seen as new forms of classical legal objects, such as property rights. This approach leads to the belief that tokens or digital representations have no intrinsic value unless paired with a physical legal object (Novoselova and Polezhaev 2019). Conversely, in Europe and the United States, digital assets are recognized as having independent value, with unique legal regimes governing their treatment (Sannikova and Kharitonova 2018).

A key legal debate in the context of digital inheritance concerns whether user accounts and the associated content can be considered property that can be passed on to heirs. While user accounts themselves are typically bound by contracts between service providers and users, the intellectual property (IP) related to the content generated by users may be transferred upon death, provided that such rights exist at the time of the individual's death (Navas 2019). For instance, exclusive IP rights related to digital creations like photos, videos, and texts can be inherited, provided these rights are established by law. However, if the content was created under a license agreement or by third parties, the extent of inheritance depends on the specific terms of the agreement.

In the context of Indonesia, the Civil Code (KUHPerdata) governs inheritance laws, recognizing both tangible and intangible assets as inheritable. However, the current legal framework does not specifically address the inheritance of digital assets such as cryptocurrencies, social media accounts, or domain names. Despite the increasing relevance of digital assets in modern life, the legal recognition and regulation of these assets remain underdeveloped. Cryptocurrencies, for example, are treated as commodities under Bappebti Regulation No. 5 of 2019, but there is no explicit legal mechanism for their inheritance. As a result, when it comes to digital inheritance, the same general inheritance principles under KUHPerdata apply, but with significant legal ambiguities.

Furthermore, Indonesian Islamic inheritance law, governed by *faraid*, also applies to digital assets. In this system, wealth is distributed according to predefined shares, and digital assets such as intellectual property, cryptocurrency, or social media accounts would need to be assessed for their value in the same way that physical property is. However, the complexity and lack of explicit regulations in Islamic law regarding the nature and transferability of these digital assets present challenges, especially when the assets are controlled by access credentials like passwords or private keys.

d. Digital Inheritance in Various Countries

In most legal systems, heirs automatically inherit all transferable rights and property owned by the deceased without needing to transfer individual assets or obligations. This means that, upon succession, the heirs effectively step into the testator's legal position. According to Article 1112 of the Civil Code of the Russian Federation, inheritance includes all assets owned by the testator at the time of death, as well as property rights and obligations. Similar provisions can be found in other legal systems, such as § 1922 of the German Civil Code. As a result, digital assets that have transferable value and are not inherently tied to the testator's personal identity can also be inherited unless specific regulations state otherwise.

However, the transfer of certain digital assets, especially those involving personal or confidential information, can be more complex. Access to these assets often requires login credentials (e.g., passwords), and much of the digital content could include personal data or information tied to the testator's private life. In some cases, heirs may not even be aware of the existence of such content. As legal doctrine has established, personal data and other private information are generally not considered objects of civil rights and thus cannot be transferred through traditional inheritance mechanisms (Harbinja 2017). Furthermore, such content may contain personal data about third parties, such as individuals the deceased communicated with, raising further privacy concerns.

Information shared on social networks or during account registration may include personal details that the deceased might not have wished to be disclosed to their heirs. Consequently, the inheritance of such data is not governed by traditional property inheritance laws but raises issues about whether service providers can disclose such information to heirs. This issue is currently under debate in various legal systems. For instance, Italian inheritance law provides certain rules allowing the transfer of a deceased person's personal data to individuals who have a legitimate interest in protecting the deceased's rights or other valid reasons.

At the European level, the General Data Protection Regulation (GDPR) does not specifically regulate the personal data of deceased individuals, leaving it up to individual EU Member States to establish national rules. The GDPR, which came into effect in 2016, only covers the personal data of living individuals, and member

states have been encouraged to implement national measures regarding the handling of deceased persons' data. For example, Italy recently introduced Legislative Decree No. 101 of 2018, which aligns national laws with the GDPR and includes provisions related to the personal data of deceased individuals.

Despite the general principle of universal succession, whereby heirs inherit everything owned by the deceased unless otherwise regulated, there are certain rights in the digital realm that cannot be passed on to heirs. Some digital assets, due to their personal nature, are not transferable to third parties. For instance, digital assets like cryptocurrencies can be freely traded, while other assets, such as social media accounts, may be restricted because of their close association with the deceased's personal identity (Vučković and Kanceljak 2019). Thus, the inheritability of digital assets depends on their nature and whether they can be legally transferred beyond the testator's ownership.

e. Inheritance of Cryptocurrencies Under Islamic Law

In Islamic law, inheritance (*faraid*) is a mandatory process of distributing a deceased person's estate among their heirs based on fixed shares as outlined in the Qur'an and the Hadith. The wealth, or *maal*, left by the deceased is to be distributed according to these predetermined shares, ensuring justice and fairness. Cryptocurrencies, as a relatively new form of wealth, are becoming increasingly relevant in this context, and their treatment under Islamic law requires careful analysis to ensure they align with the principles of *faraid*. Islamic inheritance law is derived from several key sources:

1. The Qur'an: The primary source of Islamic law, the Qur'an, contains clear injunctions regarding the distribution of wealth after death. Surah An-Nisa (4:11–12) specifically details the shares that heirs are entitled to receive: "*Allah commands you as regards your children's (inheritance): to the male, a portion equal to that of two females...*" (Surah An-Nisa 4:11)

This verse outlines the share for male and female heirs and sets the foundation for the division of wealth in the Islamic inheritance system.

2. The Hadith: The traditions and sayings of Prophet Muhammad (PBUH) further clarify the application of inheritance laws. The Prophet emphasized the importance of fair and equitable distribution of wealth, as highlighted in several authentic narrations: "*It is not permissible for any Muslim who has something to will, to stay for two nights without having his last will and testament written and kept ready with him.*" (Sahih al-Bukhari)

This hadith stresses the importance of preparing a will (*wasiyyah*) to ensure that assets, including cryptocurrency, are distributed properly.

3. *Ijma'* (Scholarly Consensus): Islamic jurists have, over time, built upon the principles found in the Qur'an and Hadith to develop a comprehensive system of inheritance. Through *ijma'*, scholars have extended these rulings to cover new forms of wealth and property that were not explicitly addressed during the Prophet's time.
4. *Qiyas* (Analogical Reasoning): *Qiyas* allows scholars to apply existing principles to new issues, such as cryptocurrency. Since cryptocurrencies have value, ownership, and transferability, they can be analogized to

other forms of wealth, such as gold, silver, or cash, and thus can be subject to Islamic inheritance laws.

The concept of *maal* in Islamic law refers to anything that has value and can be owned, used, or transferred. Wealth, in this sense, is not limited to physical objects but also includes intangible assets, such as intellectual property or financial instruments. Cryptocurrencies, although digital, are recognized as valuable because they can be owned, transferred, and traded.

1. **Ownership (Milkiyah):** Islamic law emphasizes the right to own property, whether tangible or intangible. Cryptocurrencies fulfill this criterion because they can be exclusively owned through private keys, similar to cash held in a bank account. Surah Al-Baqarah (2:188): “*And do not consume one another’s wealth unjustly or send it [in bribery] to the rulers in order that [they might aid] you [to] consume a portion of the wealth of the people in sin, while you know [it is unlawful].*” This verse emphasizes the need for wealth to be rightfully owned and transferred.
2. **Transferability and Inheritance:** Islamic law requires that wealth be transferred according to the rules of inheritance (*faraid*). Cryptocurrencies, which can be transferred to heirs via the possession of private keys, meet this requirement. However, the challenge lies in ensuring that these keys are accessible to heirs upon the death of the owner.

Several legal principles from Islamic law apply directly to the inheritance of cryptocurrencies:

1. **Wasiyyah (Wills):** According to Islamic law, up to one-third of a person’s estate can be distributed through a will to non-heirs or as charitable donations. The rest must follow the rules of *faraid*. Preparing a will that includes instructions on how to access cryptocurrency assets is crucial. Surah Al-Baqarah (2:180): “*It is prescribed, when death approaches any of you, if he leaves wealth, that he makes a bequest to parents and next of kin, according to reasonable manners. (This is) a duty upon the pious.*”
2. **Faraid (Fixed Shares):** The remaining two-thirds of the estate must be distributed according to the shares prescribed in the Qur’an. Cryptocurrencies, as part of a person’s wealth, must be divided among heirs in accordance with the *faraid* system.
3. **Transparency and Security:** Cryptocurrencies are accessed via private keys, and the lack of these keys can lead to the permanent loss of the asset. Therefore, Islamic law supports the preparation of transparent and secure methods to ensure heirs receive their rightful inheritance. Surah Al-Baqarah (2:282) emphasizes the importance of clear, written contracts and documentation in financial transactions, which can be extended to the management and inheritance of digital assets.

To ensure that cryptocurrency inheritance aligns with Islamic law and follows the principles of *faraid*, there are several practical steps that can be taken to facilitate the secure and proper transfer of these digital assets to the rightful heirs. These steps are crucial for ensuring compliance with both Islamic legal principles and the technical requirements for managing cryptocurrency.

1. **Creating a Will:** The testator should clearly state the existence of cryptocurrency assets and how they can be

accessed. The private keys must be stored securely, either through a will or in a safe deposit box, with instructions for retrieval.

2. **Trust and Custodianship:** Islamic law permits the appointment of a trustee or custodian to manage the distribution of assets. The trustee can be instructed to handle the transfer of cryptocurrency by ensuring heirs have access to the private keys and understand how to manage the assets.
3. **Islamic Financial Platforms:** As cryptocurrency grows in popularity, several Islamic financial platforms are beginning to offer Shariah-compliant services for managing and transferring digital assets. These platforms ensure that the distribution of cryptocurrencies adheres to Islamic legal principles.

Cryptocurrencies can be regarded as *maal* under Islamic law and are thus subject to inheritance rules outlined in the Qur’an and Hadith. However, due to their unique nature, special attention must be given to ensuring their accessibility after death. Islamic legal principles such as *faraid*, *wasiyyah*, and ownership provide the foundation for distributing these digital assets. As cryptocurrency becomes more integrated into modern financial systems, further fatwas and legal rulings will be necessary to ensure compliance with Islamic law, especially regarding the management of private keys and secure transfer methods for heirs.

f. Cryptocurrency Assets as Inheritance Objects

Wealth refers to all tangible and intangible assets, movable and immovable, that possess economic or aesthetic value, are legally recognized and protected, and can be transferred to others. In the context of inheritance, wealth refers to all goods or property left behind by someone who has passed away, which belonged to the deceased at the time of death. Meanwhile, inheritance refers to the goods or property left behind by the deceased, which become the right of the heirs, after deductions for funeral expenses, debts, and bequests. There are two types of inheritance: tangible and intangible assets. These assets also have two characteristics: movable property, which can be transferred, and immovable property, which cannot be transferred. Inheritance can then be divided among heirs, who have the right to enjoy, manage, or transfer the assets to family members or others. From the above definitions, it is clear that the concepts of the deceased’s estate and inheritance have different meanings.

According to Article 499 of the Indonesian Civil Code (KUHPerdata), “according to the law, property includes all goods and all rights that can be controlled by ownership.” Prof. Mahadi offers an alternative formulation of this article: “What can be the object of ownership is an object, which consists of goods and rights.” Furthermore, “goods” refer to material objects, while “rights” refer to immaterial objects. Pitlo, as cited by Prof. Mahadi, explains that immaterial rights do not have tangible objects. Immaterial property rights are included in the rights referred to in Article 499 of the Civil Code. Therefore, immaterial property rights themselves can be the object of property. It is also stated that property rights are absolute rights over an object, but there are also absolute rights whose objects are not physical. This provides a framework for viewing cryptocurrency assets as objects that can be owned, controlled, and possessed by legal subjects or as “anything” that can be a legal object.

In line with Article 504 of the Civil Code, cryptocurrency assets are classified as movable property, and Article 503 of the Civil Code

indicates that cryptocurrencies are intangible due to their digital ownership. In Indonesia, the regulation of cryptocurrency assets starts from their categorization as commodities, which can be considered rights or interests, thus falling under the category of commodities in Law No. 10 of 2011 concerning Amendments to Law No. 32 of 1997 on Commodity Futures Trading (UU PBK), as stated in Article 1, paragraph 2: "Commodities include all goods, services, rights, and other interests, as well as any derivatives of commodities that can be traded and are subject to futures contracts, sharia derivative contracts, and/or other derivative contracts." Furthermore, Regulation of the Commodity Futures Trading Regulatory Agency (Bappebti) No. 3 of 2019 regarding "Commodities that Can Be Traded on Futures Exchanges" states that cryptocurrency assets (crypto assets) are designated as commodities that can be the subject of futures contracts traded on futures exchanges.

Based on the above regulations, cryptocurrency assets are considered movable and intangible property, meaning they can be transferred, either wholly or partially, through inheritance, wills, waqf, gifts, written agreements, or other legally recognized means. Cryptocurrency assets that are transferred through inheritance occur in accordance with the law, and ownership automatically passes to the heirs upon the death of the asset owner, although they can also be transferred by a deed while the testator is still alive. The inheritance of cryptocurrency assets is governed by the Civil Code (KUHPerdata), which regulates the status of a person's estate after death and the procedure for transferring that estate to others.

The law respects the existence of property rights, whether over tangible or intangible assets such as cryptocurrency. Property rights are considered the most complete form of property rights, as recognized by law, allowing the transfer or alienation of those rights by the owner. When a person dies, the estate becomes subject to inheritance, including cryptocurrency assets, which are part of the deceased's wealth and can become objects of inheritance. However, to date, there are no specific regulations governing the inheritance of cryptocurrency assets in the Civil Code (KUHPerdata) or in Bappebti regulations, which oversee cryptocurrency as a commodity in futures trading. Nevertheless, inheritance includes both movable and immovable, tangible and intangible assets. As cryptocurrency is classified as movable intangible property, it becomes part of the owner's wealth. This means that if the owner of cryptocurrency assets dies, those assets become part of the deceased's estate and can be included as objects of inheritance, in accordance with the relevant inheritance provisions in the Civil Code.

According to Article 832 of the Civil Code, "According to the law, those entitled to be heirs are blood relatives, whether legitimate or illegitimate, and the surviving spouse, all in accordance with the regulations outlined below. If neither blood relatives nor the surviving spouse exist, all the estate of the deceased becomes the property of the state, which is obliged to settle all debts, insofar as the estate's value is sufficient for this purpose." This means that individuals or parties designated by law and the Civil Code are legally recognized as heirs (ab intestate). Furthermore, heirs are divided into four categories. Additionally, some individuals may become heirs due to legal acts performed by the deceased during their lifetime, such as the legal recognition of an illegitimate child or by making a will.

The main requirement for inheritance to take place is the death of an individual (Article 830 of the Civil Code), and the heirs must exist at the time of the testator's death, in accordance with Article 2 of the

Civil Code. Moreover, an heir must be capable and entitled to inherit, meaning they are not disqualified by law from inheriting due to death or legal incapacity. Article 913 of the Civil Code states: "The legitimate portion is a part of the estate that must be given to heirs in the direct line according to the law, and the deceased cannot dispose of this portion, whether by inter vivos (between the living) gift or by will." While a testator has the right to distribute their assets, there are legal restrictions on that right, and they must respect the legitimate portion, except when the testator has no descendants, in which case the entire estate can be given to the beneficiary. The Civil Code makes no distinction between male and female heirs, or between husbands and wives, as all have the right to inherit equally. Once cryptocurrency assets are transferred through inheritance, their status as part of the heir's or beneficiary's estate cannot be seized unless the rights were acquired unlawfully.

However, as this discussion focuses on cryptocurrency inheritance, and considering the unique characteristics of cryptocurrency as a digital financial asset that utilizes cryptography and blockchain technology, it is important to understand that its system lacks a central authority to control it. As a result, no one can control these assets except the owner, and it is impossible to recover private or public keys. Therefore, the author concludes that the inheritance process can be technically regulated through the following methods:

- 1) Drafting a will explaining that the testator stores ownership documents and usage instructions in a safe deposit box at a bank.
- 2) Using cryptocurrency exchange services to store private keys, ensuring that the exchange provider verifies the legitimacy of the heirs by requesting valid documentation according to each exchange's regulations.
- 3) Employing the Shamir Backup method, which divides the master key (master seed) into several keys, requiring a majority of key holders to consent for access to be granted..

4. Conclusion

In conclusion, the inheritance of digital assets, particularly cryptocurrencies, presents both challenges and opportunities within Indonesia's legal framework. While cryptocurrencies are recognized as intangible movable property and can be inherited under the Civil Code (KUHPerdata), there remains a significant gap in specific regulations addressing the transfer and management of these assets upon death. The decentralized nature of cryptocurrencies, which relies on private keys for access, further complicates the inheritance process, as losing these keys could result in the permanent loss of the assets.

From an Islamic law perspective, cryptocurrencies can be classified as *maal* (wealth) and are therefore subject to the rules of *faraid* (Islamic inheritance). Islamic law emphasizes the fair and just distribution of wealth among heirs, and cryptocurrencies, as part of a deceased's estate, should be distributed according to these principles. However, practical challenges arise in terms of access and security, as Islamic law has yet to fully address the specific technical requirements of digital assets like cryptocurrencies. Fatwas and further guidance from Islamic scholars are needed to clarify how these digital assets can be managed and transferred in a Shariah-compliant manner.

The need for a comprehensive legal framework is clear, both from the perspective of Indonesia's national inheritance laws and Islamic

law. Such a framework would not only provide legal certainty for the inheritance of digital assets but also ensure compliance with Islamic principles, offering protection for testators and heirs alike. By integrating technical solutions, secure platforms, and proper documentation, Indonesia can address the complexities of digital inheritance in a way that aligns with both modern technology and traditional legal and religious values.

5. Suggestion

To address the complexities of cryptocurrency inheritance in Indonesia, it is recommended that the government develop specific regulations governing the transfer of digital assets in both civil and Islamic law contexts. This should involve collaboration with Islamic scholars to ensure compliance with Shariah principles, alongside public education initiatives to raise awareness about the importance of securing private keys and planning for the transfer of digital wealth. Additionally, financial institutions and legal professionals should incorporate digital assets into estate planning services, offering secure solutions like key management systems and Shariah-compliant platforms to facilitate the smooth and lawful transfer of these assets to heirs. Continuous research and adaptation of the legal framework are also crucial as the technology surrounding digital assets evolves.

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