


## Legal Review of the Application of Conventional Inheritance Law Provisions to Cryptocurrency Assets

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Article Info	ABSTRACT
<p><b>Keywords:</b> Cryptocurrency, Inheritance Law, Civil Code Digital Assets</p>	<p>The digitalization era has brought fundamental transformations to the financial sector, particularly with the emergence of cryptocurrency, which has experienced significant growth in Indonesia. However, the existence of cryptocurrency as a new investment asset raises legal implications that have not been anticipated by the existing legal system, especially in inheritance law, where the Civil Code was drafted during the Dutch colonial period when digital technology did not yet exist, thus creating complex problems in the inheritance of cryptocurrency, which has technical characteristics that differ from conventional assets. This study aims to examine the application of Indonesian inheritance law provisions to cryptocurrency assets, identify obstacles in the application of conventional inheritance law to digital assets, and explore the necessary adaptations. The study employs a normative legal approach with doctrinal research based on an analysis of Indonesian positive law principles through literature review. The results of the study indicate that cryptocurrency can be classified as intangible movable property based on Articles 503 and 504 of the Civil Code, but its practical application faces significant obstacles in terms of asset accessibility, which depends on private keys, difficulties in identifying and inventorying digital assets, and issues of proof of ownership. The conclusion states that while conventional inheritance law provisions can theoretically be applied to cryptocurrency, legal mechanisms require adaptation through expanded interpretation of will provisions, development of escrow systems, and updates to the Civil Code to provide adequate legal certainty.</p>
<p>This is an open access article under the <a href="https://creativecommons.org/licenses/by-nc/4.0/">CC BY-NC</a> license</p> 	<p><b>Corresponding Author:</b> Yulkarnaini Siregar Universitas Pembinaan Masyarakat Indonesia <a href="mailto:yulkarnainis@gmail.com">yulkarnainis@gmail.com</a></p>

### INTRODUCTION

The era of digitalization that has been developing very rapidly since the beginning of the 21st century has brought fundamental transformations in various aspects of human life, and the financial and investment sectors are no exception. One of the most revolutionary innovations to emerge from this wave of digital transformation is cryptocurrency (Pernice & Scott, 2021). As a form of digital currency that utilizes advanced encryption technology and blockchain systems, cryptocurrencies have changed the way people view the concept of money and investment (Xu et al., 2019). In Indonesia, the enthusiasm for cryptocurrency investment has grown significantly, especially among the millennial and Z generations who are more familiar with digital technology.

The existence of cryptocurrency as a new investment asset raises various legal implications that have not been fully anticipated by the existing legal system. Unlike conventional forms of investment such as property, gold, or stocks that already have a clear legal framework, cryptocurrency presents its own challenges for the Indonesian legal system (Rohman, 2021). The characteristics of cryptocurrencies that are intangible, decentralized, and highly dependent on digital technology create new complexities in various aspects of law, including in the field of inheritance law.

The issue becomes even more complicated when we see that the foundation of inheritance law in Indonesia, the Civil Code, was drafted during the Dutch colonial era when digital technology did not exist. The provisions in the Civil Code mostly accommodate tangible assets such as land, buildings, jewelry, vehicles, and various other forms of physical property. As a result, when someone who owns cryptocurrency assets dies, various legal questions arise that are not easily answered by referring to existing inheritance law provisions.

The main problem faced in cryptocurrency inheritance lies in its technical nature which is very different from conventional assets. To access cryptocurrencies, one needs a private key that functions like a highly confidential digital password. Without this private key, cryptocurrency becomes completely inaccessible, even to heirs who are legally entitled to the asset. Unlike a bank account that can be accessed by heirs through certain legal procedures, or a property that can be transferred through a certificate of ownership, a cryptocurrency that loses its private key will become a lost asset forever (Addinanto, 2019).

Kondisi ini diperparah oleh belum adanya regulasi khusus yang mengatur secara detail mengenai mekanisme pewarisan aset digital di Indonesia. Meskipun Badan Pengawas Perdagangan Berjangka Komoditi (Bappebti) telah mengakui cryptocurrency sebagai komoditas yang dapat diperdagangkan, namun pengakuan ini belum disertai dengan pengaturan yang memadai mengenai aspek pewarisannya. Akibatnya, para pemilik cryptocurrency dan calon ahli warisnya berada dalam situasi ketidakpastian hukum yang dapat merugikan kedua belah pihak (Hartono et al., 2022).

Fenomena pertumbuhan investasi cryptocurrency di Indonesia yang terus meningkat membuat urgensi penyelesaian permasalahan hukum ini semakin tinggi. Data dari berbagai platform perdagangan cryptocurrency menunjukkan bahwa jumlah investor cryptocurrency Indonesia telah mencapai jutaan orang dengan nilai investasi yang mencapai triliunan rupiah. Dengan besarnya nilai aset yang terlibat, permasalahan pewarisan cryptocurrency bukan lagi sekadar isu teoritis, melainkan permasalahan praktis yang memerlukan solusi hukum yang jelas dan komprehensif.

This study is to examine in depth how the existing inheritance law provisions in the Indonesian legal system can be applied to cryptocurrency assets. This study will identify various obstacles and challenges that arise in applying conventional inheritance law to digital assets, as well as explore various possible adaptations and modifications needed to accommodate the unique characteristics of cryptocurrencies.

## METHOD

This research uses a normative juridical approach with doctrinal research characteristics that

rely on in-depth analysis of Indonesian positive legal principles (Vranken, 2010). This approach was chosen due to the nature of the research that examines aspects of conventional inheritance law in the context of the development of digital technology, especially cryptocurrency assets, which do not have special arrangements in depth in the Indonesian legal system. This method allows researchers to conduct an academic exploration of the legal gap that occurs between the provisions of traditional inheritance law and the reality of contemporary digital asset ownership. Data collection techniques are carried out through library research by systematically reviewing legislation, court decisions, and relevant legal literature. Primary data sources include the Civil Code, Law Number 8 of 2010 concerning Prevention and Eradication of Money Laundering, Bank Indonesia and Financial Services Authority regulations related to crypto assets, as well as international regulations that can be used as a comparison. Secondary data sources are obtained from the results of previous research, scientific journal articles, law books, and academic publications that discuss the intersection between inheritance law and blockchain technology.

In conducting desk research, the data collection method was carried out through quoting from various sources, both offline and online. Offline sources were obtained through literature review in the form of books relevant to the research topic. Meanwhile, for online sources, researchers utilize various scientific journals and articles available on the internet that have relevance to the focus of the research being studied. The combination of these two types of sources provides a comprehensive theoretical foundation to support the analysis and discussion in the research (Assyakurrohim, 2023).

## RESULTS AND DISCUSSION

### Legal Classification of Cryptocurrency Assets in the Conventional Inheritance Law System

To understand how conventional inheritance law can be applied to cryptocurrency assets, the first step is to classify the legal position of cryptocurrencies in Indonesia's property law system. Based on the provisions in the Civil Code, specifically Article 499, which defines property as "every good and every right that can be controlled by property rights", cryptocurrency can be categorized as a legal object that can be owned. Furthermore, referring to Articles 503 and 504 of the Civil Code which distinguish objects based on their nature and transferability, cryptocurrencies can be classified as intangible movable property. This classification is based on several characteristics of cryptocurrencies, namely: First, cryptocurrency has no physical form because it exists only in the form of digital data; Second, cryptocurrency can be transferred relatively easily through digital transactions; and Third, cryptocurrency has economic value that can be measured and traded.

The classification of cryptocurrency as intangible movable property has significant legal implications in the context of inheritance. Based on the provisions of Article 830 of the Civil Code which states that inheritance only takes place due to death, and Article 832 which regulates the subjects entitled to receive inheritance, cryptocurrency as part of the testator's estate automatically becomes the right of the legal heirs according to the law (Amalia et al., 2024).

However, this classification also raises complex questions about how conventional

property law principles can be applied to assets that are highly dependent on technology. For example, the concept of mastery (bezi) in traditional property law, which requires a physical connection between the person and the object, becomes irrelevant in the context of cryptocurrencies where mastery is proven through the ownership of private keys (Saputra, 2018).

In addition, from the perspective of applicable regulations in Indonesia, cryptocurrencies have been recognized as tradable commodities under the Regulation of the Commodity Futures Trading Supervisory Agency (Bappebti). This recognition strengthens the position of cryptocurrency as an asset that has economic value and can become a legal object, including in the context of inheritance. However, its recognition as a trading commodity does not automatically resolve all legal issues related to its inheritance.

In practice, the classification of cryptocurrency as intangible movable property must also consider the technical aspects of the underlying blockchain technology (Cadizza, & Yusandy, 2021). Cryptocurrencies cannot be simply equated with other digital financial instruments due to their decentralized characteristics and dependence on cryptographic keys. This requires a special approach in the application of conventional inheritance law provisions.

#### **Challenges in Applying Conventional Inheritance Law Provisions to Cryptocurrency Assets**

The application of conventional inheritance law provisions to cryptocurrency assets faces various fundamental challenges that are not encountered in the inheritance of conventional assets. The first and most significant challenge is the issue of asset accessibility. Unlike conventional assets that can be identified and accessed through physical ownership documents or records in official institutions, cryptocurrencies can only be accessed through private keys that are generally only known by the owner. If the inheritor passes away without providing information regarding the private key to his/her heirs, then the cryptocurrency asset will become inaccessible forever, even though it has legally passed to the heirs.

The second challenge relates to the identification and inventory of the estate. In conventional inheritance law, the process of inventorying an estate can be done relatively easily as most assets have a paper trail or are recorded in an official administrative system. In contrast, cryptocurrencies can be stored in various platforms, digital wallets, or even in an offline form (cold storage) that is not well documented. This makes it difficult for heirs to know exactly the type and amount of cryptocurrency owned by the heir. The third challenge concerns the issue of proving ownership and legitimizing heirs. In a blockchain system, cryptocurrency ownership is proven through the ability to control private keys, rather than through conventional ownership documents. This raises the question of how heirs can prove their rights to the testator's cryptocurrency, especially if the cryptocurrency is held on platforms that require identity verification or in systems that do not recognize the concept of legal inheritance.

In addition, the irreversible nature of cryptocurrency transactions adds to the problem of resolving inheritance disputes. If there is an error in the process of transferring cryptocurrency to the heirs, or if there is a dispute over the distribution of inheritance, there is no mechanism to cancel the transaction that has been made. This is different from conventional assets where there is still a possibility to make corrections or recoveries through

legal processes (Dika, 2024). Another challenge relates to the valuation and division of cryptocurrency assets.

The value of cryptocurrencies is highly volatile and can change drastically in a short period of time. This raises the question of when and how the valuation of cryptocurrency assets should be done for the purpose of inheritance distribution. Should the valuation be done at the time of death of the testator, at the time of distribution of the estate, or at some other specific time? These fluctuations in value may also create injustice if the division of inheritance is not done simultaneously.

From a procedural perspective, conventional inheritance law provisions also do not accommodate the special needs of cryptocurrency inheritance (Feliks, 2022). For example, there are no provisions governing the obligation of the testator to document his cryptocurrency assets, or on specific mechanisms to ensure continuity of access to heirs. This is in contrast to some other jurisdictions that have begun to develop specific provisions to govern the inheritance of digital assets.

### **Adaptation of Conventional Inheritance Law Mechanisms to Accommodate Cryptocurrency Assets**

Facing various challenges in applying conventional inheritance law to cryptocurrency assets, adaptation and development of legal mechanisms that can accommodate the unique characteristics of these digital assets are needed. This adaptation can be done at several levels, ranging from the interpretation of existing provisions to the development of new, more specific legal instruments.

At the interpretation level, the provisions regarding wills in the Civil Code can be expanded to include special instructions regarding cryptocurrency assets. Article 875 and related articles in the Civil Code governing wills could be interpreted in such a way as to allow the testator to include information regarding private keys, access instructions and other technical guidance required to access cryptocurrencies. However, this implementation requires special care as private keys listed in wills can be vulnerable to abuse. A more profound adaptation can be done through the development of an escrow mechanism or the storage of private keys by a trusted third party (Zhang, 2022).

In this mechanism, the testator can deposit his cryptocurrency private key with a notary, bank, or other financial institution with specific instructions on when and how the key can be handed over to the heirs. This mechanism adapts the concept of a safe deposit box in conventional banking for the purpose of storing digital asset access information (Cahyani et al., 2023).

In addition, a key sharing mechanism can also be developed using Shamir's Secret Sharing technology that allows private keys to be divided into several parts and distributed to several parties. In this mechanism, access to the cryptocurrency is only possible if a minimum number of key share holders agree to combine their shares. This mechanism can be adapted for inheritance purposes where key parts are distributed to heirs with the stipulation that access to the cryptocurrency can only be done if there is an agreement between them.

From a regulatory perspective, it is necessary to develop special provisions governing the obligations and rights of inheritors and heirs in the context of cryptocurrency assets.

These provisions may include the obligations of heirs to document their cryptocurrency assets, the rights of heirs to access information regarding the heir's digital assets, and special procedures for the transfer of cryptocurrency ownership in the inheritance process (Ramadhany, 2024).

In addition, a voluntary certification or registration mechanism for cryptocurrency assets owned by individuals can also be developed. Through this registration system, cryptocurrency owners can register their digital assets in an official database with information on designated heirs. This will facilitate the identification and transfer of assets in inheritance situations. Adaptations are also needed in the procedural aspects of the judiciary to handle disputes relating to cryptocurrency inheritance. This includes the development of evidentiary standards for cases involving digital assets, training for law enforcement officials on blockchain technology and cryptocurrencies, and the development of alternative dispute resolution mechanisms that are more suitable for cases involving digital assets.

In the longer term, the most fundamental adaptation may be required through the revision or update of the Civil Code to explicitly accommodate digital assets in the provisions of inheritance law. This may include specific definitions for digital assets, provisions regarding digital asset inheritance procedures, and protection mechanisms for parties involved in the digital asset inheritance process.

## CONCLUSION

Based on the juridical analysis that has been conducted, it can be concluded that the provisions of conventional inheritance law in the Civil Code can theoretically be applied to cryptocurrency assets through the classification of cryptocurrency as intangible movable objects based on Article 503 Jo 504 of the Civil Code. However, its practical application faces significant obstacles, especially in terms of the accessibility of assets that depend on private keys, the difficulty of identification and inventory of digital assets, and the problem of proving ownership that is fundamentally different from conventional assets. To overcome these challenges, it is necessary to adapt legal mechanisms through the expansion of the interpretation of will provisions, the development of escrow systems for private key storage, the implementation of key sharing technologies such as Shamir's Secret Sharing, and the development of special regulations governing the inheritance of digital assets. Furthermore, in the long run, it is necessary to update the Civil Code that explicitly accommodates the unique characteristics of digital assets to provide adequate legal certainty for parties in the cryptocurrency ecosystem. This study contributes to the development of a more comprehensive legal framework to regulate digital asset inheritance in Indonesia, so as to offset the rapid growth of cryptocurrency investment with adequate legal protection.

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