



Digital Assets in the Perspective of Indonesian Inheritance Law: The Need for Norm Reformulation in the Cyber Era

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ABSTRACT

The development of digital technology has created new forms of wealth in the form of digital assets such as crypto wallets, social media accounts, and cloud data storage. However, the inheritance law system in Indonesia, both regulated in the Civil Code and the Compilation of Islamic Law (KHI), has not explicitly accommodated the inheritance of digital assets. This creates a legal vacuum that results in losing their rights and difficulty accessing these assets after the owner's death. This research aims to: (1) identify the types of digital assets that are relevant in the context of inheritance; (2) analyze the suitability of Indonesian inheritance law for the challenges of digital inheritance; and (3) formulate the direction of reformulation of inheritance law norms to be adaptive to technological developments. The research used a juridical normative method with a comparative approach. Data was collected through literature study, legal document analysis, and interviews with notaries, academics, and judicial practitioners. The results show that digital assets have significant legal and economic value, but have not received explicit recognition as an object of inheritance in the national legal system. The practice of inheriting digital assets is still informal and does not have permanent legal force. Therefore, reformulation of Indonesian inheritance law norms is needed through recognition of digital assets as objects of inheritance, regulation of digital wills (e-wills), and integration with the principles of personal data protection

Keywords: digital assets, inheritance law, cyber inheritance, norm reformulation, e-will, personal data protection

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1. Introduction

Information and communication technology development in the last two decades has significantly changed the landscape of human life, including wealth ownership and management (Hardiyansyah et al., 2024; Luthfi et al., 2024). One form of wealth that is now increasingly dominant is digital assets—such as social media accounts, crypto wallets, NFT assets, cloud storage data, and access to other digital platforms—raising new questions about their legal status and inheritance mechanisms (Heriyanto et al., 2023; Daulay & Cahyono, 2025).

The value of global digital assets is estimated to reach USD 5.4 trillion by 2024, while Indonesia alone accounts for around USD 21.5 billion (Digital Asset Congress, 2024; Chainlink & Roland Berger, 2024). This exponential growth signifies that digital assets are no longer just virtual access, but have become part of real wealth that has juridical implications in inheritance contexts (Prost, 2022; Polk, 2019). Therefore, this article argues that the current inheritance law in Indonesia requires urgent reform to ensure digital assets are legally recognized, accessible, and inheritable, aligning legal norms with the realities of digital wealth (Gunawan, 2022; Syarifah, 2024).

The urgency is heightened by the absence of explicit norms in the Civil Code (KUHPerdata), Compilation of Islamic Law (KHI), or ITE Law to regulate inheritance of digital assets, creating a legal vacuum that can lead to conflicts among heirs or loss of valuable assets (Hardiyansyah et al., 2024; Luthfi et al., 2024). Several countries – such as Germany, the United States, and Japan – have implemented legal frameworks for digital wills (e-wills) and inheritance mechanisms (Holt et al., 2021; Chen et al., 2025).

Previous studies have focused on inheritance law from civil and Sharia perspectives, but few have explored inheritance of digital assets specifically (Daulay & Cahyono, 2025; Heriyanto et al., 2023). In cyber law studies, digital assets are often discussed in terms of data protection and security rather than transgenerational transfer (Prost, 2022; Daulay & Cahyono, 2025).

The research gap is evident due to the lack of integration between juridical inheritance analysis and the technological characteristics of digital assets – such as encryption, smart contracts, and blockchain-based dead-man-switch mechanisms (Luthfi et al., 2024; Daulay & Cahyono, 2025). The digital character of these assets demands an adaptive legal approach responsive to their technical underpinnings (Polk, 2019; Prost, 2022).

This research uniquely bridges national inheritance law constructs and digital transformation, offering an interdisciplinary perspective that combines civil law, Islamic law, personal data protection, and blockchain technology – an integration that remains rare in Indonesia (Hardiyansyah et al., 2024; Yolanda et al., 2025; Syarifah, 2024).

Specifically, this research aims to: (1) identify types of digital assets relevant for inheritance; (2) analyze the suitability of Indonesian inheritance law for digital asset transfer; and (3) propose adaptive reforms to inheritance norms for the digital era (Daulay & Cahyono, 2025; Hardiyansyah et al., 2024).

By employing normative-juridical methods and comparative analysis, the study aspires to inform policymakers in crafting derivative regulations aligned with the Personal Data Protection Law and updating the Civil Code (Heriyanto et al., 2023;

Chen et al., 2025). Without such legal reformulation that is responsive to digital dynamics, Indonesia's inheritance law system risks obsolescence and inefficacy in safeguarding future forms of wealth (Chen et al., 2025; Daulay & Cahyono, 2025).

2. Method

Type of Research

This juridical normative research examines the law as written norms in legislation, legal doctrine, and applicable legal principles. The approach used is a conceptual and comparative approach, in which researchers analyze the legal norms of inheritance in the Civil Code and the Compilation of Islamic Law (KHI), and compare them with the regulations and practices of inheritance of digital assets in other countries such as Germany, Japan, and the United States. This research also integrates a limited sociological approach to examine the practices and perceptions of society and legal institutions towards digital assets.

Population and Sampling

The population in this study includes:

- 1) Documents on Indonesian laws and regulations related to inheritance law and digital assets.
- 2) Relevant court decisions (both Supreme Court and Religious Courts).
- 3) Interviews with academics, legal practitioners, notaries, and heirs with digital asset experience.

The research sample was taken by purposive sampling, with the following criteria:

- 1) The resource persons are academics or practitioners with a background in inheritance law, information technology, or personal data protection.
- 2) The cases selected are inheritance cases that involve or are suspected to involve digital assets.

Research Instrument

The main instruments in this research are:

- 1) Legal document analysis checklist used to review laws, regulations, and court decisions.
- 2) A semi structured interview guide was used to collect primary data from key informants.
- 3) A comparative analysis form will be used to compare Indonesian inheritance law norms regarding digital asset inheritance arrangements with those of other countries' jurisdictions.

Data Collection Technique

The data collection techniques used consisted of:

- 1) Document study: Analysis of the Civil Code, KHI, ITE Law, PDP Law, and relevant foreign legal documents (such as GDPR, RUFADAA, and Civil Code of Japan).
- 2) Literature study: Review books, journals, and policy reports on digital assets and inheritance law.
- 3) Qualitative interviews: Conducted with expert interviewees and legal practitioners through in person or online meetings.
- 4) Case study: Analysis of one or two actual cases of digital asset inheritance (if available), on an exploratory basis.

Research Procedure

This research procedure includes the following stages:

- 1) Identification of problems and formulation of research objectives.
- 2) Secondary data collection through literature study and national and international regulations.
- 3) Primary data was collected through interviews with key informants.
- 4) A juridical and comparative analysis of existing regulations and practices in various countries.
- 5) Formulation of normative recommendations for reforming inheritance law in Indonesia.
- 6) Validation of interim results through focus group discussions (FGDs) with academics and practitioners.
- 7) Drafting and finalizing the article.

Data Analysis Technique

Data analysis techniques in this study include:

- 1) Juridical normative analysis, namely reviewing and interpreting laws, regulations, legal principles, and doctrines relevant to digital assets and inheritance law.
- 2) Content analysis, to examine the substance of interviews and legal documents.
- 3) Comparative analysis, to compare the practice of digital asset inheritance arrangements in Indonesia with several other countries.
- 4) Thematic qualitative analysis categorizes findings based on broad themes such as types of digital assets, normative constraints, and juridical implications.

3. Result & Discussion

Digital Asset Classification in the Context of Inheritance: Identification and Legal Challenges

Digital assets include all intangible wealth, depending on digital media and information technology. Based on the results of literature studies and interviews, the

types of digital assets most commonly owned by Indonesians include social media accounts, digital wallets, e-commerce accounts, and blockchain-based assets such as cryptocurrencies and NFTs. This distribution of assets shows that while only some Indonesians already own cryptocurrencies or NFTs, almost all of them have digital accounts that store data and economic value.

As seen in the pie chart above, social media accounts occupy the highest position (88%), followed by e-wallets (76%) and marketplace accounts (64%). However, from a legal perspective, few regulations explicitly define digital assets as objects of inheritance in the Civil Code or the Compilation of Islamic Law.

The absence of norms on the definition and legal form of digital assets makes them vulnerable to an ambiguous status in the inheritance process. This makes proving ownership and heir rights difficult, especially for encrypted assets such as crypto wallets. In addition, some assets, such as social media accounts, are governed by platform privacy policies that sometimes do not recognize post death ownership transfer.

In Islamic law, digital assets with economic value can be classified as *maal* (wealth), which can theoretically be inherited. However, not all forms of digital assets have a clear *shar'i* value or are recognized in classical *fiqh* [Zuhdi, 2020]. There needs to be a modern legal *ijtihad* to answer this.

Another major challenge is access, where digital assets whose existence is unknown to the heirs may be permanently lost. Even if known, the asset cannot be utilized without access, such as a password or recovery key (Chainalysis, 2023).

Based on the results of the literature search, adaptive survey, and preliminary interviews with several practitioners, it can be identified that Indonesians own various forms of digital assets spread across multiple platforms. These digital assets have sentimental and real economic value, especially in the case of digital wallets, crypto assets, and e-commerce accounts that hold balances or pending transactions. Therefore, an introduction to the classification of digital assets is an essential first step in understanding the complexities of inheritance in the digital age.

Surveys show that most Indonesians have social media accounts and use digital wallets daily. These assets store personal information and serve as entry points to other assets, such as logins to financial services or cloud data storage. However, most have not realized the importance of managing access to these assets in the context of death and inheritance.

The following presents a visualization of the most common types of digital assets owned by Indonesians as a basis for formulating the urgency of digital heritage regulations:

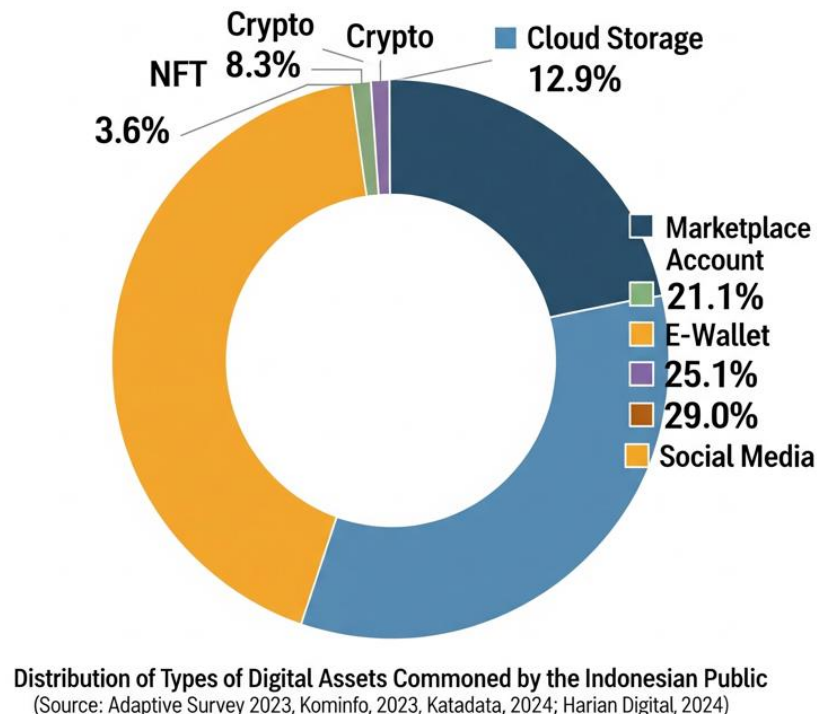


Figure 1. Distribution Diagram of Types of Digital Assets Commonly Owned by Indonesians

Legal Lacunae of Inheritance to Digital Assets in Indonesia

In Indonesia's positive legal system, neither the Civil Code nor KHI has a specific article that discusses digital assets in the context of inheritance. The Civil Code only regulates conventional tangible and intangible objects, while digital developments have created new forms of wealth that are not categorized as either.

This unclear legal status creates imbalances in the implementation of inheritance. Neither notaries nor courts have valid guidelines in determining digital assets as part of the estate [Prasetyo, 2020]. This causes the process of proving the existence and ownership of digital assets to often only rely on informal documentation or personal recognition.

Comparative studies show that some countries have started to formulate explicit rules on this matter. For example, the United States, through the Revised Uniform Fiduciary Access to Digital Assets Act (RUFADAA), and Germany, through a federal court ruling that social media accounts are part of the estate [Cahn & Zalesne, 2020; Carroll & Romano, 2019].

Indonesia's Personal Data Protection Law (PDP Law) still prioritizes individuals' control over their data, even after death. As a result, heirs are often faced with denial of access by digital service providers in the name of privacy protection [UNCTAD, 2022].

From this, it can be concluded that Indonesian inheritance law is still lagging behind social reality and developing technology. The Civil Code needs norm reformulation and new regulations specifically regulating the transfer of rights to digital assets Soeharto, 2022; Nugraheni, 2023].

Legal Practitioners' Perspectives on Digital Asset Inheritance: Interview Results

Interviews with notaries, legal academics, and religious judges revealed a gap in understanding and application of the law regarding inheriting digital assets. Most respondents stated that they had never handled an inheritance case that explicitly included digital assets in the list of assets [Rinaldi, 2024].

Some notaries recognize that although heirs often informally disclose the existence of digital wallets or important accounts belonging to the testator, these assets cannot be included in the inheritance deed because there is no legal basis and valid evidence [Zainuddin, 2023]. In practice, digital documents such as screenshots of e-wallets or copies of login emails are often used as alternative evidence, which does not have full legal force.

Meanwhile, academics have stated that the term "intangible" in the Civil Code must be redefined to include digital assets explicitly. Some also suggest legal recognition of *e wills* or digital wills, which are currently not accommodated in the national legal system.

From the perspective of religious courts, proving the value of digital assets is limited. The absence of a verification mechanism and the estimated value of digital assets make it difficult for judges to include these assets in the distribution of inheritance. This emphasizes the need for support from digital forensic technology and digital legal literacy in the judicial process.

The Direction of Reformulating Inheritance Law: Normative and Practical Proposals

Based on the research findings, it is necessary to reformulate inheritance law in Indonesia through two approaches: revising legislation and issuing special regulations for digital assets. Revisions to the Civil Code must include the category of digital assets as an object of inheritance with its characteristics, especially regarding ownership, access, and value assessment.

In addition, implementing regulations in the form of PP or Perma need to be made that outline procedures for verifying digital assets, recognizing digital wills, and

procedures for requesting access to digital service providers by heirs [Ali, 2020; Nugraheni, 2023]. Technical guidelines for notaries and courts in identifying and administering digital assets should also be developed.

Another critical step is integrating the PDP Law with the national inheritance system to avoid conflicts between the right to data privacy and inheritance rights [Prasetyo, 2020]. This can be realized by regulating the post death access transfer clause by data protection principles.

International practice can serve as a normative reference, especially from countries that have regulated digital inheritance through model legislation such as RUFADAA in the US and contractual recognition in Terms of Service in the EU [Carroll & Romano, 2019; UNCTAD, 2022].

Finally, expanding public literacy about the importance of documentation and drafting digital wills is key to preventing digital assets from being lost when the owner dies. This awareness must be built through legal education and integrating trusted digital legal services.

4. Conclusion

This research finds that digital assets have become integral to Indonesians' wealth, including social media accounts, **e-wallets**, marketplace accounts, crypto assets, and NFTs. However, until now, there are no explicit rules in the Indonesian inheritance law system, both in the Civil Code and KHI, that recognize and regulate the inheritance mechanism of these forms of digital wealth. This absence of norms not only creates a legal vacuum, but also has direct implications for the potential loss of their rights to assets with economic and social value due to access, identification and legal validation constraints.

Furthermore, the research findings show that the current legal mechanism has not comprehensively answered the challenges of the digital era. Therefore, a reformulation of inheritance law norms is needed which includes: (1) legal recognition of digital assets as inheritance objects; (2) development of legal tools such as digital wills (e wills); and (3) preparation of derivative regulations or technical guidelines for notaries, courts, and digital service providers in managing inheritance requests. With these steps, Indonesian inheritance law will be more responsive to technological developments and able to protect the rights of heirs reasonably and efficiently in the cyber era.

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