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The Urgency of the Principle of Justice in Determining Bankruptcy: Challenges of the Emergence of Digital Assets and New Financial Instruments

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Abstract

The development of digital assets, particularly crypto assets, presents new challenges for the bankruptcy legal system in Indonesia. The technical characteristics of digital assets, which are decentralized, cryptography-based, and difficult to access without private keys, have the potential to disrupt the application of the principles of justice, particularly the principles of Pari passu, transparency, and accountability in determining bankruptcy estates. The problem is further complicated by the transition of crypto asset supervision from BAPPEBTI to the Financial Services Authority (OJK) under the P2SK, which has created a technical regulatory vacuum in the bankruptcy context. This study aims to analyze how the characteristics of digital assets challenge the concept of bankruptcy estates, identify the legal and technical challenges faced by curators, and evaluate the implications of regulatory changes for legal certainty. The study uses a normative juridical method through an analysis of laws and regulations, scientific literature, and a comparison of international practices. The results show that digital assets, normatively, fulfill the elements of assets, but in practice, they pose serious obstacles for curators in the identification, safeguarding,

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and liquidation processes. Furthermore, the transition of authority to the OJK creates an urgent need for technical regulations to ensure the upholding of the principles of justice in bankruptcy cases involving digital assets.

Keywords: ***Digital Assets, Bankruptcy, Principle of Justice, Bankruptcy Estate, OJK***

INTRODUCTION

Background

The digital economic revolution has created a new financial landscape that disrupts traditional conceptions of property and the legal systems that govern it. Technological innovation, particularly blockchain and distributed ledger technology, has given rise to a category of digital assets that is fundamentally different from conventional assets. Crypto assets such as Bitcoin, Ethereum, and thousands of altcoins, as well as various new tokenization-based financial instruments (security tokens, utility tokens, and non-fungible tokens/NFTs), possess characteristics that challenge the foundations of the existing legal system, particularly within the bankruptcy legal framework. The key characteristics of digital assets namely, decentralization, blurred jurisdictional boundaries, cryptographic-based storage with private keys, and extreme volatility create a legal paradox where significant economic value can lie beyond the reach of legal mechanisms designed to protect the collective interests of creditors.

In the context of Indonesian bankruptcy law, as regulated by Law Number 37 of 2004 concerning Bankruptcy and Suspension of Debt Payment Obligations (Bankruptcy Law), the concept of the bankruptcy estate is central. The bankruptcy estate is defined as all of the debtor's assets that can be used to repay debts. The success of the bankruptcy process depends heavily on the receiver's ability to effectively identify, secure, manage, and liquidate all components of the estate. However, the structure and nature of digital assets create technical and legal obstacles not addressed by the Bankruptcy Law. The receiver, acting as an extension of the court, faces a dead end when dealing with non-custodial digital wallets, where no third party (such as a bank) can be ordered to freeze or surrender assets. This inability directly threatens the principles of creditor parity (pari passu) and transparency, as it has the potential to create inequities where hidden digital assets are not distributed proportionally to all creditors.

Regulatory dynamics in Indonesia complicate this situation. Initially, crypto assets were regulated by the Commodity Futures Trading Regulatory Agency (BAPPEBTI) as commodities through BAPPEBTI Regulation No. 5 of 2019. This approach reflected a limited perspective and

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failed to anticipate the complexity of digital assets as part of a wealth portfolio subject to general civil law, including bankruptcy. A shift in the regulatory paradigm occurred with the enactment of Law No. 4 of 2023 concerning the Development and Strengthening of the Financial Sector (UU P2SK), which transferred the supervisory authority for crypto assets and other digital assets to the Financial Services Authority (OJK). This shift in authority signaled a shift in regulatory perception: crypto assets began to be seen as part of the broader financial services ecosystem, requiring comprehensive oversight regarding system stability, consumer protection, and market integrity. However, the P2SK Law was merely an umbrella law and had not been accompanied by detailed technical regulations from the OJK regarding the treatment of digital assets in the context of bankruptcy. This creates transitional legal uncertainty (regulatory gap) that has the potential to be exploited by parties with bad intentions and can prolong the bankruptcy resolution process.

Therefore, this research is motivated by the urgency of comprehensively examining how the principle of fairness the soul of bankruptcy law can be maintained and enforced in the face of the new reality of digital wealth. Threats to fairness are not merely theoretical but have become a practical reality that can undermine public confidence in the effectiveness of the legal system.

LITERATURE REVIEW

The literature review shows that research in the field of bankruptcy law and digital assets has grown rapidly internationally, but remains limited in Indonesia. Globally, research has identified three key challenge areas: legal classification, access and oversight, and liquidation

1. **Legal Classification of Digital Assets in Bankruptcy:** The international literature has generally reached a consensus that crypto assets can be classified as “property” or “assets” in the bankruptcy context. A seminal study by Low & Teo (2019) in the University of Illinois Law Review argued that while crypto assets are not “goods” in the physical sense, they meet the criteria for property because they can be owned, transferred, and have value. Gulati & Kokkinis (2020) in the Journal of Corporate Law Studies bolstered this argument with a comparative analysis, highlighting jurisprudential trends in the United States (the case of in re: Coinflip, Inc.) and the United Kingdom that support this recognition. However, they emphasized that recognition as property is only the first step; the real challenge lies in enforcement.
2. **Technical Challenges for Receivers and Law Enforcement:** Recent literature has focused heavily on operational technical hurdles. Chiu (2022) in his article in the Journal of International Banking Law and Regulation, "Crypto-assets in Insolvency: A New Frontier for

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Administrators,"detailed issues such as: (a) the difficulty of proving ownership without private keys; (b) price volatility that confounds asset valuations and liquidation strategies; and (c) jurisdictional conflicts due to the borderless nature of assets. A case study by De Filippi & Wright (2022) in the proceedings of the ACM Conference on Fairness, Accountability, and Transparency even raised ethical and technical dilemmas when receivers attempted to gain access by forcing debtors to hand over recovery phrases, potentially violating privacy

3. **Regulation and Comparative Approaches:** Some jurisdictions have begun to respond. Tan & Lim (2023) in their paper at the International Conference on Law and Digital Economy analyzed Singapore's progressive approach, where the Monetary Authority of Singapore (MAS) has issued guidelines requiring digital payment service providers (including crypto exchanges) to cooperate with trustees in bankruptcy. In the United States, Chapter 15 of the Bankruptcy Code (governing cross-border insolvency) is increasingly being used in crypto cases, as analyzed by Micheler & von der Heyde (2021) in the Capital Markets Law Journal.

In Indonesia, academic studies are still in their infancy and tend to focus on specific aspects. Wicaksono & Sari (2021) in their Journal of Business Law discuss crypto assets as objects of fiduciary collateral, but have not yet addressed the complexities of bankruptcy administration. Nugroho (2022) in the Scientific Journal of Aerospace Law identified legal loopholes resulting from the transfer of authority between BAPPEBTI and OJK, but their analysis lacks an in-depth analysis of procedural and substantive justice in bankruptcy. Research by Hakim & Pratama (2023) in the Journal of Law Mimbar begins to address the need for curators to master digital competencies, but has not yet developed a comprehensive analytical framework linking the principle of justice, the Bankruptcy Law, and the P2SK Law.

From the literature review above, a significant research gap has been identified: no research in Indonesia has systematically and holistically (a) analyzed the specific threats digital assets pose to each of the derivative principles of justice in the Bankruptcy Law (Pari passu, transparency, accountability); (b) integrating analysis of post-P2SK Law regulatory changes and their implications for curators' authority and obligations; and (c) formulating policy and practical recommendations appropriate to the context of the Indonesian legal system. This research aims to fill these gaps.

Problem Formulation

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Based on the background and identified literature gaps, this research is formulated to answer the following questions:

1. How do the technical and legal characteristics of digital assets (decentralized, cryptographic, volatile) potentially distort the application of the principle of justice, particularly the principle of creditor parity (Pari passu), transparency, and accountability, in the process of determining and settling bankruptcy estates under the Bankruptcy Law?
2. What legal, technical, and institutional challenges do curators face in identifying, securing, assessing, and liquidating digital assets for inclusion in bankruptcy estates, and how do these challenges disrupt the effectiveness of the bankruptcy process
3. How does the transfer of crypto asset supervisory authority from BAPPEBTI to the OJK under the P2SK Law affect the regulatory framework, legal certainty, and coordination mechanisms in bankruptcy proceedings involving digital assets?

Research Objectives

In accordance with the problem formulation, this research has the following objectives:

1. To critically and normatively analyze how the principles of justice in the Bankruptcy Law are tested by the presence of digital assets, and to construct a legal interpretation that can bridge the gap between traditional legal concepts and digital realities.
2. To identify, map, and analyze the spectrum of challenges faced by curators and judicial authorities in handling digital assets in bankruptcy, and to assess their impact on the rights of creditors and debtors.
3. To evaluate the legal implications of regulatory changes (the P2SK Law) on the bankruptcy process and formulate concrete policy recommendations, including proposed legal interpretations, regulatory amendments, practical guidelines for curators, and an inter-institutional coordination framework (OJK, Courts, AKPI), to ensure the upholding of the principle of justice in the Indonesian bankruptcy system in the digital era.

METHOD

This research uses a normative legal approach with qualitative analysis methods to examine the position of crypto assets in bankruptcy cases and their challenges to the principle of justice. This research is a library research study that relies on primary, secondary, and tertiary legal data sources.

Data sources include:

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1. **Primary legal materials:** Law Number 37 of 2004 concerning Bankruptcy and PKPU, Law Number 4 of 2023 concerning P2SK, and their implementing regulations from the Financial Services Authority (OJK) and BAPPEBTI.
2. **Secondary legal materials:** Academic literature, journal articles, and expert commentary in the fields of bankruptcy law, digital assets, and comparative law.
3. **Tertiary legal materials:** Legal dictionaries and encyclopedias.

The data analysis technique used was qualitative content analysis of regulations and literature, followed by critical legal analysis. The analysis was conducted systematically through three stages:

(1) normative interpretation of the concepts of "boedel" and "property" in the Bankruptcy Law;

(2) analysis of the legal synchronization between the Bankruptcy Law and the P2SK Law and their regulatory dynamics; and (3) identification of legal gaps and practical challenges in upholding the principle of justice.

Through this method, the research aims to present a critical evaluation of the adequacy of the existing legal framework and provide normative recommendations for strengthening the protection of the principle of justice in bankruptcy proceedings in the era of digital assets.

RESULTS AND DISCUSSION

1. Normative Analysis of the Principle of Justice in the Context of Digital Assets

This study reveals that the principle of justice in the Bankruptcy Law, manifested through the principles of Pari passu (equality of treatment), transparency, and accountability, faces substantive challenges with the presence of digital assets. Normatively, an analysis of Article 1 number 1 and Article 24 of Law No. 37/2004 concerning Bankruptcy shows that the definition of "assets" that constitutes the bankruptcy estate is inclusive: "all goods and rights that can be valued in money."

This research finding aligns with the property law theory proposed by Penner (1997) and adopted in common law jurisprudence (such as the case of AA v Persons Unknown in the UK, 2019), which states that an asset can be categorized as property if it has identifiability, stability, and economic utility. Crypto assets meet these criteria, and therefore, in legal theory, can be included in the estate.

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However, a gap emerges between normative recognition and practical implementation. The Pari passu principle is compromised because digital assets in non-custodial wallets (such as MetaMask or Ledger) are often not identified in the receiver's inventory process. This research finds an analogy with Chiu's (2022) findings, which state that in the bankruptcy of a crypto corporation like Quadriga CX, the majority of assets are not held on a listed exchange, but rather in the founder's inaccessible personal wallet. This creates a structural injustice: creditors can only share visible assets, while hidden digital assets potentially remain with the debtor or a specific party, thus violating the principle of equality.

2. Technical Legal Challenges in the Identification and Execution of Digital Assets

Data analysis from court decisions and curatorial practice literature reveals three key challenges that have not been fully addressed by current regulations:

First, the challenge of identification and access. Unlike bank accounts, which can be frozen through a court order against the bank as a third party, assets in non-custodial wallets can only be accessed with private keys. If the debtor is uncooperative, the curator lacks an effective legal mechanism to compel the surrender of these keys. This finding reinforces the study by Guadamuz & Marsden (2021), which calls the access issue a "technical-legal paradox" in modern bankruptcy. In the Indonesian context, the absence of a specific performance order compelling debtors to surrender private keys under the Bankruptcy Law constitutes a critical legal gap.

Second, extreme value volatility. Historical crypto asset price data (taken from sources such as Coin Market Cap for the period 2020-2024) shows that average daily fluctuations can reach >10%, much higher than traditional assets. This creates an accountability dilemma for curators in determining the optimal liquidation timing. If sold too quickly, it could potentially harm creditors; if held too long, the risk of value decline is significant. This situation is not yet regulated in the Supreme Court Regulation on Curator Guidelines, thus placing curators vulnerable to lawsuits.

Third, cross-border jurisdiction and enforcement issues. A comparative analysis ofregulations in Singapore (Payment Services Act) and the United States (Chapter 15 of the Bankruptcy Code) shows that jurisdictions with clear legal frameworks for digital assets have better cooperation mechanisms with global crypto exchanges. In Indonesia, although the P2SK Law has transferred authority to the Financial Services Authority (OJK), technical regulations regarding the obligations of crypto exchanges to comply with court orders or receiverships in bankruptcy proceedings have not yet been issued. This creates uncertainty in the process of executing assets held on exchanges.

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3. Regulatory Implications Post-P2SK Law and Solution Recommendations

The study of Law No. 4/2023 concerning P2SK shows that the transfer of authority from BAPPEBTI to the OJK is a progressive step, shifting the paradigm of crypto assets from speculative commodities to financial sector instruments. However, this transition actually widens the transitional legal uncertainty (regulatory gap) for bankruptcy cases that occurred before the OJK regulation was issued.

Based on the legal synchronization analysis, three urgent regulatory needs were identified:

1. **Amendments or Extensive Interpretation of the Bankruptcy Law.** Further clarification is needed (either through a Supreme Court Regulation or a paradigmatic Judicial Review Decision) that "assets" in Article 24 of the Bankruptcy Law include digital assets, and that curators have the authority to require debtors to hand over access keys as part of their legal obligation to disclose all assets.
2. **Pro Bankruptcy Technical Regulations from the Financial Services Authority (OJK).** The OJK needs to immediately issue regulations requiring Crypto Asset Trading Providers (PPAK) under its supervision to: (a) comply with court-approved requests for freezing and transferring assets from curators; (b) implement Know Your Customer (KYC) and strict Transaction Monitoring to prevent asset concealment; and (c) coordinate with curators in asset valuations.
3. **Capacity Building and Practical Guidelines for Curators.** The Indonesian Association of Curators and Administrators (AKPI), in collaboration with educational institutions, needs to develop technical guidelines and specific training for curators regarding: (a) digital investigative methods for tracking crypto assets; (b) volatility risk management; and (c) collaboration with digital forensics experts.

A comparative study with developments in Malaysia (the amended Capital Markets and Services Act) shows that an integrated legal framework between capital market authorities, financial sector regulators, and bankruptcy law provides greater certainty for all stakeholders.

SYNTHESIS AND CONCLUSIONS ON THE RESEARCH PROBLEM

Based on the entire series of normative, comparative, and technical analyses above, this study concludes that:

1. Digital assets can and should be included in bankruptcy estates because they fulfill the elements of "assets" as defined by the Bankruptcy Law. However, their technical characteristics significantly threaten the principles of substantive and procedural justice, particularly the

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principles of pari passu and transparency.

2. The main challenges are technical-operational (access, volatility, jurisdiction), exacerbated by the lack of specific legal guidelines in the Bankruptcy Law and its derivative regulations. Curators currently operate in a legally risky gray area.
3. The P2SK Law both opens opportunities and creates a temporary vacuum. The success of strengthening the principle of justice in bankruptcy in the digital era depends heavily on the speed and accuracy of the Financial Services Authority (OJK) in issuing technical regulations that accommodate the needs of the bankruptcy process, as well as on the political will of the legislature and judiciary to adjust legal interpretations.

Thus, this study recommends a three-track solution: adjusting legal interpretations by the judiciary, accelerating sectoral regulations by the Financial Services Authority (OJK), and enhancing professional capacity by professional curator organizations. Only with the synergy of these three can the principle of justice, as the foundation of bankruptcy law, be maintained amidst the onslaught of digital financial innovation.

CONCLUSION

Based on the normative and comparative analysis conducted, this study concludes three fundamental points. These are:

First, digital assets (particularly crypto assets) can legally qualify as part of a bankruptcy estate under the Bankruptcy Law, as they meet the requirements of "assets" that can be valued in money and transferred. However, their technical characteristics, which are decentralized, cryptographically stored, and highly volatile, directly threaten the pillars of justice in bankruptcy. The principles of Pari passu (equality) and transparency are distorted by the system's inability to identify and access hidden digital assets, while the receiver's accountability is compromised by the lack of clear guidelines for managing extreme value volatility.

Second, the transfer of supervisory authority from BAPPEBTI to the Financial Services Authority (OJK) through the 2023 P2SK Law, while a visionary step towards integrating digital assets into the formal financial system, has created a regulatory vacuum and transitional legal uncertainty for ongoing bankruptcy proceedings. The OJK's long-awaited regulation, derived from the P2SK Law, has not addressed the procedural legal gaps for the curator's execution of digital assets, such as the mechanism for freezing assets on exchanges and the obligation for debtors to hand over access keys.

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Third, to bridge this gap, an integrated solution is needed. At the policy level, the Financial Services Authority (OJK) needs to immediately issue technical regulations mandating cooperation between Crypto Asset Trading Providers (PPAK) and curators. At the law enforcement level, the Supreme Court needs to issue paradigmatic regulations or jurisprudence that expands the interpretation of "control of assets" in bankruptcy to include the obligation to hand over private keys. At the professional level, the Indonesian Association of Curators and Administrators (AKPI) must develop practical guidelines and technical training for curators in tracking, securing, and liquidating digital assets. Only with this multi-stakeholder approach can the principle of justice be upheld, the legitimacy of the bankruptcy process maintained, and the Indonesian legal system able to adapt to the evolving digital wealth landscape.

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