



Legal Certainty Regarding Execution Practices *non-Fungible Tokens* as an Object of Fiduciary Guarantee

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Abstract: The development of blockchain technology has given birth to new digital assets, namely Non-Fungible Token (NFT). Its popularity has grown rapidly, transforming it from a mere digital collectible into a high-value investment instrument. This phenomenon opens up opportunities for NFTs to be utilized in various financial sectors, including as collateral. Its significant economic potential drives the need to examine its legal position within the existing financial system. Despite its economic value, the legal status of NFTs as fiduciary collateral in Indonesia remains unclear. The current Law Number 42 of 1999 concerning Fiduciary Collateral is designed for conventionally recognized tangible and intangible movable objects. The absence of specific regulations governing digital assets such as NFTs creates a legal vacuum, creating uncertainty for parties seeking to utilize them. This research is a legal research (doctrinal research) with a legal approach (statues approach), conceptual approach and analytical approach. The results of this study explain that first, the existence of Non-Fungible Token The development of NFTs as digital assets in Indonesia began with the development of the digital economy and increased public interest in using investment instruments. Second, the lack of specific regulations for NFTs as fiduciary collateral creates a significant legal vacuum, and the current Fiduciary Guarantee Law is not designed to accommodate the unique characteristics of digital assets, such as value volatility and technical identification. Third, accurately identifying NFTs during the execution process is a fundamental challenge. Unlike physical assets, NFTs can only be recognized through a series of cryptographic data such as token IDs and complex contract addresses. Current regulations fail to accommodate their unique characteristics related to classification, valuation, and registration and execution mechanisms. This situation creates significant legal uncertainty, thus creating high risks for the parties involved. The recommendation for this issue is the need for the government to immediately revise fiduciary guarantee regulations or establish specific regulations for digital assets. In the meantime, the government can create regulations in the form of Government Regulation in Lieu of Law (Perppu) or Supreme Court Rules (Perma) so that the legitimacy of digital asset objects such as NFTs is legally recognized as a class of movable and intangible assets in fiduciary guarantees.

Keywords: Non-Fungible Tokens; Collateral; Legal Vacuum; Digital Assets; Revision of the Fiduciary Guarantee Law

Introduction

The development of blockchain technology has given birth to new digital assets, namely *Non-Fungible Token* (NFT). Dina Purnama Sari, in her journal, explains that NFT (*Non-Fungible Token*) is an asset¹Digital-based, making it relatively easy to buy and sell because it doesn't require real space, which is more expensive. Its popularity has grown rapidly, transforming it from a mere digital collectible into a high-value investment instrument. This phenomenon opens up opportunities for NFTs to be used in various financial sectors, including as collateral. Its significant economic potential drives the need to

¹ Siti Saroh, et al., "Analysis of Digital Non-Fungible Token (NFT) Transactions as an Instrument "Investment from an Islamic Economic Perspective". Journal of Islamic Economics, 9(01), 2023. pp. 378-386

examine its legal position within the existing financial system. The most important aspect of the collateral itself is that the item is the debtor's original ownership, has a market value or economic valuation, and can be transferred to the creditor. Despite its economic value, the legal status of NFTs as fiduciary collateral in Indonesia remains unclear.²

The current Law Number 42 of 1999 concerning Fiduciary Guarantees is designed for both tangible and intangible movable objects, conventionally known as movable objects. Meanwhile, NFTs are movable objects that are intangible. The drawback of NFTs as fiduciary guarantee objects is the lack of specific regulations governing digital assets, creating uncertainty for parties seeking to use them as collateral for debts to other creditors. In best practice, NFTs as collateral objects have evolved from mere digital collectibles to investment instruments with high economic value. This phenomenon opens up opportunities for NFTs to be utilized in various financial sectors, including as collateral. Their significant economic potential drives the need to examine their legal position within the existing financial system.

Although NFTs can be used as fiduciary collateral, the fiduciary law regarding the status of NFTs as collateral remains unclear. Qualifying NFTs as objects has broad legal implications, particularly regarding their ability to serve as objects of obligation, transfer of rights, and collateral.³ Determining the status of NFT as an object is an important step to ensure whether the digital asset can be used as a subject in various legal transactions, including as a collateral object.⁴ This legal uncertainty, particularly regarding the execution mechanism, is a crucial issue that urgently requires research. Without clear legal guidance, creditors and debtors face high risks in the NFT guarantee and execution process. Therefore, the author will conduct research on "*Legal Certainty Regarding the Practice of Executing Non-Fungible Tokens as Fiduciary Guarantee Objects*" It is important to analyze and formulate a legal framework that can provide certainty and protection for all parties involved.

Research Methods

This research is normative legal research. Normative legal research is legal research that positions law as a system of norms. The system of norms in question concerns the principles, norms, and rules of legislation, court decisions, and doctrines (teachings).⁵ The approach in this research is that the author uses 2 (two) approaches to solving the problem, namely the statutory approach (*statutory approach*) and conceptual approach (*conceptual approach*). This study examines the legal certainty of Non-Fungible Tokens as objects of fiduciary guarantee on intangible movable objects in Indonesia.

Research Results and Discussion

Existence Non-Fungible Tokens in Indonesia

The emergence of Non-Fungible Tokens in Indonesia stems from the rapid development of global technology. NFT consists of two words: Non-Fungible and Token. Non-Fungible is a term describing digital assets that cannot be exchanged due to their distinct and unique nature. Tokens, on the other hand, represent physical objects on the blockchain. Therefore, NFTs are simply blockchain representations that demonstrate the existence of tangible or intangible assets that have economic value and can be traded.

In 2017, a pilot project titled CryptoPunks was launched with the aim of conducting a market test on NFTs.⁶ This project successfully introduced NFTs to digital artists/creators and collectors. Another

² Julian, et al., "NFT (Non-Fungible Token) as Collateral". Journal of Notarial Law. Vol.6 (1). 2026. Vol.19-38

³ Ida Ayu Dwi Indah Jayanti, et al., "The Legal Status of Non-Fungible Tokens as Collateral Objects: A Legal Certainty Perspective." Locus. Volume 5, Number 3, December 2025. Pp. 380-389

⁴ *Ibid.* Ida Ayu Dwi Indah Jayanti, et al., "Legal Status of Non-Fungible.....pp. 380-389

⁵ Mukti Fajar and Yulianto Achmad, 2010, *Dualism of Normative Legal Research and Empirical Law*, Student Library, Yogyakarta, p. 34

⁶ Ranti Fauzan Mayana, et al., "Intellectual Property Development & Commercialization of Non-Fungible Tokens (NFT): Opportunities, Challenges, and Legal Issues in Practice." Acta Djurnal Jurnal Ilmu Hukum Kenotariatan. Vol. 5. No. 2. 2022. pp. 202-220

successful project is CryptoKitties, a game featuring collectible and breedable digital cats. This project later became the most traded project per day.⁷

In Indonesia, there are no specific regulations explicitly addressing Crypto Art or Non-Fungible Tokens (NFTs) as objects of legal protection. However, creators' rights are generally protected by Law Number 28 of 2014 concerning Copyright. Essentially, NFTs represent the owner's creative work, generating economic value that can serve as investment instruments. In terms of economic potential and legal protection, *technological security infrastructure*, actually NFT has several advantages including transparency of transaction history and *metadata public* and transaction confirmation media that can prevent data manipulation and ownership theft⁸. NFT as a part of technology *blockchain* which is increasingly developing and one of the developments is the NFT digital certificate which is generally embedded/attached to images, photos.

Each NFT operates using *smart contract*⁹ on a blockchain network that automatically executes ownership and transfer rules. The value of an NFT is highly subjective and determined by market demand, the reputation of its creator, and its inherent historical or cultural value. Because of these factors, NFT values can fluctuate significantly over a relatively short period of time. The use of smart contracts enforces rules regarding ownership, transfers, and royalties. When you make a transaction, the smart contract validates and records it permanently. This guarantees the authenticity and uniqueness of each token and provides certainty over ownership of the digital asset. The NFT ecosystem encompasses various elements, from digital marketplace platforms and crypto wallets to communities of creators and collectors. Platforms such as *Open Sea* It serves as a platform for buying and selling assets, while your crypto wallet is needed to securely store NFTs. This interaction between stakeholders shapes market dynamics and determines the value of a digital asset within the global ecosystem.

Shift Non-Fungible Tokens as an Object of Fiduciary Guarantee in Indonesia

The lack of specific regulations for NFTs as fiduciary collateral creates a significant legal vacuum. The current Fiduciary Guarantee Law is not designed to accommodate the unique characteristics of digital assets, such as value volatility and technical identification. We will find that these regulations fail to address issues related to valuation, registration, and execution mechanisms appropriate to the nature of NFTs.

The required regulations must clearly define the legal status of NFTs as collateral. Furthermore, standard registration procedures are needed that accommodate technical identification such as token IDs and contract addresses. Another crucial aspect is establishing a justifiable valuation method or economic value, as well as a secure execution mechanism, for example through a digital custodian. *smart contract* A specific regulatory framework will provide much-needed legal certainty, both as a creditor and a debtor. This can encourage financial institutions to be more open to accepting NFTs as collateral, thereby unlocking new economic potential. Ultimately, clear regulations will stimulate innovation in the digital finance sector while providing adequate legal protection.

In the United States, the Uniform Commercial Code (UCC)¹⁰ has been amended to accommodate digital assets, which are referred to as *controllable electronic records*. You can see that this legal framework provides a foundation for categorizing and refining security rights over assets like NFTs. This approach provides greater legal certainty for parties in executing digital asset collateral there.

⁷ Nadya Olga Aletha, "Understanding Non-Fungible Tokens (NFTs) in the Crypto Art Industry," 2021 (<https://cfds.fisipol.ugm.ac.id>), accessed on April 15, 2026

⁸ Seyed Motjaba Hosseini Bamkan et al, "Patens and Intellectual Property Asset as Non-Fungible Tokens: Key Technologies and Challenges." *Scientific Reports* 12, No.1, 2022, hlm.1-13

⁹ The Islamic Jurisprudence of Muamalah on Non-Fungible Transactions. (n.d.). Retrieved from <https://pdfs.semanticscholar.org/fa7b/24c696bf7547c29aeba50368489c912b1b40.pdf>

¹⁰ Legal protection for clients in transactionse-commerce ... Retrieved from <https://dspace.uui.ac.id/bitstream/handle/123456789/9394/DISERTASI%2032.pdf?sequence=1&isAllowed=y>.

Meanwhile, several jurisdictions in Europe such as Switzerland and Liechtenstein have introduced specific laws on technology *blockchain*. You'll find that this legislation not only recognizes digital assets as legal entities but also provides an integrated transfer and execution mechanism. This has successfully created a more mature and secure ecosystem for NFT-based collateral transactions.

Lessons learned from other countries demonstrate the importance of proactive legal adaptation to technological innovation. It can be concluded that Indonesia does not need to create regulations from scratch but can instead adopt proven principles. However, such adaptation must be aligned with the national legal system, particularly the existing fiduciary guarantee legal framework in Indonesia.

The main challenge in classifying NFTs as fiduciary objects lies in the control and execution mechanisms in the event of default.¹¹ Fiduciary security requires legal ownership of the collateral, which must also be transferable. Traditional fiduciary security typically relates to tangible and movable assets, while NFTs are virtual and intangible. Indonesian law recognizes intangible movable objects as objects that qualify for fiduciary security, as stipulated in Article 1 number (4) of the Fiduciary Security Law. This law permits tangible and intangible movable objects, as well as immovable property, to be used as collateral. The author analyzes that, indirectly, the Fiduciary Law has regulated that NFT objects can be used as fiduciary security objects, but special regulations are needed in the implementation mechanism for NFTs as fiduciary security objects. The position of NFTs as fiduciary security objects is not yet specifically legal, nor is its legality, but based on applicable related regulations, there is potential for the creation or development of a legal product as a new additional regulation that regulates specifically and in detail.¹²

Legal Certainty Regarding Execution Non-Fungible Tokens as a Fiduciary Guarantee Object

Accurately identifying NFTs during execution is a fundamental challenge. Unlike physical assets, NFTs can only be identified through a complex set of cryptographic data, such as token IDs and contract addresses. You need to ensure these technical descriptions are perfectly spelled out in the deed of guarantee, as even the slightest typo can invalidate the claim upon execution.

The next challenge you face is valuation. The value of NFTs is highly volatile and subjective, depending on market sentiment and the creator's reputation. There is no standard valuation method that can be used by bailiffs or creditors. This makes it difficult to determine a fair sale price at the time of execution, potentially harming one of the parties involved in the agreement. Both challenges directly impact the effectiveness of the execution process. NFT auction sales require accurate technical verification and the establishment of reasonable price limits. Without clear standards, you will have difficulty finding potential buyers who are convinced of the object's authenticity and value. As a result, the sales process becomes inefficient and risks failing to optimally repay receivables.

The absence of specific regulations for NFTs as fiduciary collateral creates a significant legal vacuum. The current Fiduciary Guarantee Law is not designed to accommodate the unique characteristics of digital assets, such as value volatility and technical identification. We find that these regulations fail to address issues related to valuation, registration, and execution mechanisms appropriate to the nature of NFTs. The author argues that the government should act swiftly in light of the development of assets, namely NFTs, which have the potential to become fiduciary collateral. This allows the Fiduciary Guarantee Law to be revised to provide swift legal certainty regarding the legal status of NFTs as fiduciary collateral in Indonesia.

The required regulations must clearly define the legal status of NFTs as collateral. Furthermore, standard registration procedures are needed that accommodate technical identification such as token IDs

¹¹ Iqbal and Noor Saptani, "Non-Fungible Tokens as Fiduciary Guarantee Objects to Optimize Intellectual Property Rights." Referendum: Journal of Civil and Criminal Law. Vol. 1 No. 3, 2024, pp. 170-178

¹² Putri Azura Hana Haryadi, "Analysis of the Validity and Potential of Non-Fungible Tokens as Fiduciary Guarantee Objects". 2024. pp. 1-10

and contract addresses. Another crucial aspect is establishing a reliable valuation method and a secure execution mechanism, for example through a digital custodian *smart contract*.

A specific regulatory framework will provide much-needed legal certainty, both as a creditor and a debtor. This can encourage financial institutions to be more open to accepting NFTs as collateral, thereby unlocking new economic potential. Ultimately, clear regulations will stimulate innovation in the digital finance sector while providing adequate legal protection.

The government is recommended to revise the Fiduciary Guarantee Law or issue implementing regulations. This policy should explicitly recognize NFTs as intangible movable objects that can be pledged as collateral. Clear regulations should be in place regarding the inclusion of technical identification, such as token ID and contract address, in the guarantee deed to ensure the validity of the registration and execution process.

The government needs to encourage the establishment of certified supporting institutions. Authorities such as the Financial Services Authority (OJK) or the Commodity Futures Trading Regulatory Agency (Bappebti) should license digital asset appraisal institutions to address objective valuation issues. Furthermore, a trusted digital custodian is needed to act as a third party to secure and execute NFTs as required by law, mitigating the risk of asset control. The author also agrees that the government should not only revise the provisions regarding digital asset objects, such as NFTs, as collateral under the Indonesian Fiduciary Guarantee Law. The government also needs to establish a dedicated fiduciary guarantee registration agency specifically for digital assets, unlike the current registration process through conventional fiduciary guarantee registration offices.

Furthermore, there is a need to standardize the technical procedures for NFT registration and execution within the online fiduciary administration system. This system must be able to accommodate unique cryptographic data. Furthermore, a comprehensive educational program for notaries, law enforcement officials, and judges is crucial to ensure they understand the technical and legal aspects of digital assets. Providing legal certainty regarding the regulation of fiduciary guarantees for digital assets such as NFTs is a government effort to protect the interests of creditors as lenders of debts to debtors. Protection for creditors is achieved through legally guaranteed enforcement. With clear regulations, you as a creditor have the right to seize and sell NFTs in the event of default. Mechanisms such as digital custodians or *escrow* based *smart contract* can also prevent debtor seliminate assets, so that your collateral remains safe and can be executed effectively.

On the other hand, legal protection for debtors must also be a top priority. You have the right to a transparent and fair execution process, especially regarding asset valuation. Regulations must ensure that NFTs are not sold below fair value and stipulate that any excess proceeds from the sale after debt repayment must be returned to you, the debtor.

To achieve balance, the legal framework must regulate the role of independent third parties. The presence of certified digital asset appraisal institutions and trusted custodians will protect your interests, both as a creditor and a debtor. This mechanism ensures objective valuations and an impartial execution process, thereby increasing confidence in the use of NFTs as collateral. It's important to understand that digital assets, such as NFTs, have fluctuating and unstable sales values. Therefore, the existence of a specialized institution that guarantees digital assets, such as NFTs, for fiduciary security is crucial to protect both debtors and creditors, ensuring that the guarantee, as an effort to provide trust to one party in a debt, is effectively implemented.

The prospects for NFTs in the national collateral system are very promising, with the potential to become an innovative new class of collateral. This utilization will increase financial inclusion, especially for those involved in the digital creative industry and crypto asset investments. With the recognition of NFTs, the liquidity of digital assets will increase, driving the growth of the creative economy and providing broader access to funding for modern society. To realize this prospect, a strong supporting ecosystem is needed. This includes licensed digital asset valuation institutions, secure custodians, and market platforms that comply with national laws. Furthermore, financial institutions and legal

practitioners must improve their technological literacy to better manage the risks inherent in these volatile digital assets.

In the long term, we envision the seamless integration of NFTs into the national fiduciary guarantee system. This would be supported by an adaptive and technology-neutral legal framework, possibly even automating execution through smart contracts. This vision would not only enrich the collateral instrument but also strengthen Indonesia's position in the global digital economy.

With no specific regulations regarding fiduciary collateral for digital assets, the government needs to create a special regulation as a temporary measure to create legal certainty if a debtor pledges digital assets in an NFT as fiduciary collateral to a creditor. The government can create regulations in the form of Government Regulation in Lieu of Law (Perppu) or Supreme Court Rules (Perma) so that the legitimacy of digital asset objects such as NFT is legally valid as a type of fiduciary guarantee which has been explicitly regulated in Article 1 number 4 of Law Number 42 of 1999 concerning Fiduciary Guarantees regarding intangible movable objects which are part of objects that can be used as fiduciary objects.

Conclusion and Suggestion

Conclusion

Existence Non-Fungible Token The development of NFTs as digital assets in Indonesia began with the development of the digital economy and increased public interest in using investment instruments. NFTs, as digital assets, have economic value and can be transferred to other parties as long as the original party allows it. NFTs have been used as fiduciary collateral, where debtors pledge their NFTs as collateral for debt to creditors. In Law Number 42 of 1999 concerning Fiduciary Guarantees, Essentially, the NFT itself is the owner's creation, which will generate economic value and can be used as an investment instrument. In terms of economic potential and legal protection aspects, *technological security infrastructure*, actually NFT has several advantages including transparency of transaction history and *metadata public* and transaction confirmation media that can prevent data manipulation and ownership theft.

The lack of specific regulations for NFTs as fiduciary collateral creates a significant legal vacuum. The current Fiduciary Collateral Law is not designed to accommodate the unique characteristics of digital assets, such as value volatility and technical identification. The main challenge in classifying NFTs as fiduciary assets lies in the control and execution mechanisms in the event of default.¹³ Fiduciary security requires legal ownership of the collateral, which must also be transferable. Traditional fiduciary security typically relates to tangible and movable assets, while NFTs are virtual and intangible. Indonesian law recognizes intangible movable assets as eligible for fiduciary security, as stipulated in Article 1 number (4) of the Fiduciary Security Law.

Identifying Non-Fungible Token Accurately enforcing NFTs during the execution process is a fundamental challenge. Unlike physical assets, NFTs can only be identified through a complex set of cryptographic data such as token IDs and contract addresses. As digital assets of economic value, NFTs face a legal vacuum as objects of fiduciary security in Indonesia. Current regulations fail to accommodate their unique characteristics related to classification, valuation, and registration and execution mechanisms. This creates significant legal uncertainty, posing significant risks to the parties involved. Despite these challenges, analysis shows that NFTs conceptually meet the criteria for intangible movable property. Legal certainty can be achieved through proactive regulatory adaptation, as has been implemented in other countries. It is important to understand that developing a supporting ecosystem, such as certified digital valuation institutions and custodians, is an absolute prerequisite for ensuring secure implementation.

¹³ Iqbal and Noor Saptani, "Non-Fungible Tokens as Fiduciary Guarantee Objects to Optimize Intellectual Property Rights." Referendum: Journal of Civil and Criminal Law. Vol. 1 No. 3, 2024, pp. 170-178

Suggestion

The government is advised to immediately revise fiduciary guarantee regulations or create specific regulations for digital assets. It is also necessary to encourage the development of technical standards for valuation and execution mechanisms through collaboration between relevant authorities. Comprehensive education for stakeholders, including notaries and law enforcement officials, must also be a priority to build a conducive ecosystem.

With no specific regulations regarding fiduciary collateral for digital assets, the government needs to create a special regulation as a temporary measure to create legal certainty if a debtor pledges digital assets in an NFT as fiduciary collateral to a creditor. The government can create regulations in the form of Government Regulation in Lieu of Law (Perppu) or Supreme Court Rules (Perma) so that the legitimacy of digital asset objects such as NFTs is legally valid as a type of fiduciary guarantee.

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