

RUG PULLS : CLASSIFYING NFT SCAMS AND THE REGULATORY INSTRUMENTS NEEDED IN INDONESIA

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Abstract

The phenomenon of Non-Fungible Token (NFT) trading has grown rapidly and has emerged as a promising new digital economic instrument. However, this development is accompanied by an increasing prevalence of scams within the NFT ecosystem, such as rug pulls, phishing, replay attacks, and falsified copyright claims over digital works. Indonesia currently lacks a regulatory framework that specifically governs NFT transactions or provides legal protection for consumers participating in them. This study aims to classify the various forms of NFT scams based on their juridical and technological characteristics, and to assess the adequacy of existing legal instruments in Indonesia, including criminal fraud provisions, consumer protection laws, electronic transaction regulations, and intellectual property rights. The research employs normative legal methods, focusing on statutory and conceptual approaches, as well as an examination of global practices in digital asset regulation. The analysis reveals a regulatory gap, particularly concerning marketplace liability, smart contract due diligence mechanisms, and cross-jurisdictional law enforcement. Therefore, the establishment of a specific regulatory framework that is risk-based, technologically adaptive, and oriented toward digital consumer protection is necessary.

Keywords: *NFTs, scams, rug pulls, digital asset regulation, consumer protection, cyber law.*

INTRODUCTION

Advances in blockchain technology have fueled the emergence of Non-Fungible Tokens (NFTs), unique digital assets that serve as proof of ownership and authenticity of digital works. In recent years, NFTs have seen significant growth in various countries, impacting areas such as digital art, blockchain-based gaming, virtual collectibles, and digital property. In Indonesia, NFTs are gaining widespread recognition, as a number of domestic creators successfully market their digital works to international consumers. Among individuals who understand the concept of NFTs, approximately 30% are actively involved in related activities, such as purchasing or trading NFTs. This phenomenon indicates a substantial level of participation in the NFT market, although there is still room for wider adoption. (Sudirjo et al., 2023)

Despite the rapid expansion of Non-Fungible Tokens (NFTs), this development has been accompanied by the emergence of various fraudulent methods. Some common types of fraud include rug pulls, phishing, smart contract manipulation, and digital artwork forgery. These practices have caused substantial financial losses and raised concerns about cybersecurity, the accountability of trading platforms, and the capacity of the Indonesian legal system to provide effective protection.

The problem the author will analyze in this article relates to the absence of specific regulations explicitly governing Non-Fungible Tokens (NFTs) in Indonesia. Although several regulations relevant to electronic transactions exist such as the Electronic Information and Transactions Law, the Consumer Protection Law, the Personal Data Protection Law, the Copyright Law, and the Commodity Futures Trading Regulatory Agency (Bappebti) regulations regarding crypto assets—none specifically regulate the existence and operational mechanisms of NFTs. This regulatory gap has fueled uncertainty regarding the legal status of NFTs.

LITERATURE REVIEW

Non-Fungible Tokens (NFTs) are digital works that can be traded through blockchain technology using cryptocurrency. Traded works aren't limited to digital images; there are also NFTs in the form of virtual land. Investors who acquire an NFT won't receive a physical product but will instead receive a certificate of ownership of the work, which will be permanently recorded on the blockchain. (Riede & Grinschgl, 2018).

For example, in Indonesia in 2021, online media widely reported on the Ghozali Everyday phenomenon, where Sultan Gustaf Al Ghozali sold his selfies in the form of non-fungible tokens (NFTs) on the OpenSea.io marketplace. Al Ghozali offered a collection of selfies taken from 2017 to 2021 for 0.0001 ETH, or around Rp45,000 per photo, and managed to earn billions of rupiah in revenue from the platform. This phenomenon attracted not only the attention of Indonesian media but also international media. American media outlets and The Straits Times recently published an article about Sultan Gustaf Al Ghozali's success in selling NFT selfies on OpenSea, titled 'Indonesian student selfie sells for \$1 million in NFT,' explaining how he earned billions of rupiah in revenue just from selfies. In addition, the French news agency AFP, Channel News Asia (Singapore), NDTV (India), and the Daily Mail (England) also reported on the success of NFT Ghozali (Nita, 2022).

The Ghozali Everyday NFT photo phenomenon, which suddenly made a student at a Semarang university a billionaire after 933 selfies uploaded to the OpenSea.io platform were sold within three days, has drawn public attention to investment in this sector. This situation has encouraged many individuals to try their luck by selling various objects in the form of digital assets, from selfies with ID cards, photos of food and drinks, paintings, to photos with sensitive content. This phenomenon, known as the Ghozali Everyday Effect, according to Thelvia Vennieta, Head of TokoMall, has increased public awareness of NFTs and encouraged more creativity in the NFT ecosystem. Ghozali's success in selling NFTs through online media has also broadened the public's perspective that transaction activities such as investment and buying and selling are always experiencing dynamic developments over time. Rapid technological advances have changed the paradigm of how society views the outside world.

The slogan "the world in the palm of your hand" attached to society regarding technological developments reflects the opening of opportunities for broader progress in various fields (Hugo, 2022).

In January 2023, the International Institute for the Unification of Private Law (UNIDROIT) published a draft containing principles related to digital assets in the context of private law (Unidroit Principles on Digital Assets and Private Law, 2023).

These principles are designed to provide guidance to participants in digital asset transactions.

Furthermore, they can be used by legal experts, judicial institutions, and other interested parties in understanding the legal consequences of such transactions. The primary purpose of these principles is to reduce the legal uncertainty that practitioners, judges, legislators, and market participants may face in managing digital assets in the future. Several countries have developed specific regulations to oversee digital assets, including NFTs, including:

- The European Union issued the Markets in Crypto-Assets (MiCA) regulation in 2023. (European Union, 2023)
- Singapore uses the Payment Services Act (PSA) (Payment Services Act 2019, 2019)

Although Indonesia already has several regulations related to electronic transactions, such as the Electronic Information and Transactions Law (ITE Law), the Consumer Protection Law, the Copyright Law, the Personal Data Protection Law (PDP Law), and Bappebti regulations governing crypto assets, none of them directly regulate NFTs. (Nadya 2022)

As a result, there are no clear guidelines regarding the legal status of NFTs, consumer protection mechanisms, marketplace responsibilities, or fraud prevention standards. The literature also confirms that Indonesia still faces a legal vacuum in regulating NFT digital authentication and secure marketplace governance. This situation increases the risk of fraud and complicates law enforcement efforts.

RESEARCH METHOD

This research employs a normative juridical method, focusing on the analysis of legal regulations, legal concepts, and relevant literature. Several approaches are employed, including a Statute Approach to examine Indonesian legal regulations related to electronic transactions and digital assets, and a Comparative Approach, which examines regulations in several countries, including the European Union, the United States, and Singapore, to identify best practices that can serve as references for Indonesia.

This research also utilizes three types of legal materials, including primary legal materials in the form of Indonesian laws and international regulatory documents directly related to digital assets and electronic transactions; secondary legal materials such as scientific journals, books discussing blockchain technology, reports from international regulatory agencies, and other relevant literature on NFTs; and tertiary legal materials that provide support for understanding primary and secondary legal materials. (Trihanondo and Sadono 2023)

Based on a review of literature and legal provisions, assess the extent to which Indonesian law is able to respond to these problems, and compile regulatory recommendations that can be implemented to strengthen legal protection in the future.

RESULTS AND DISCUSSION

This research identifies five major *modus operandi* plaguing the NFT ecosystem. One of the most damaging is Rug Pulls, where project developers raise funds from investors and then abruptly abandon the project without fulfilling their promises. On the other hand, the biggest problem identified in this paper is the lack of a specific legal framework governing Non-Fungible Tokens (NFTs) in Indonesia. Although Indonesia has existing legal instruments, their application to NFTs remains interpretive and partial.

For example, Law Number 11 of 2008 concerning Electronic Information and Transactions as amended by Law Number 19 of 2016 (ITE Law), does acknowledge the existence of Electronic Information and Electronic Documents in Article 1 number 1 and number 4, as well as their validity as legal evidence in Article 5 paragraph (1). However, this provision only regulates the formal digital aspects without touching on the substance of ownership of these unique assets.

Furthermore, Law Number 8 of 1999 concerning Consumer Protection guarantees consumers' rights to correct, clear, and honest information in Article 4 letter c. However, the often decentralized and anonymous nature of NFT transactions makes it difficult to implement business actors' obligations. From an intellectual property perspective, Law Number 28 of 2014 concerning Copyright, specifically Article 40 paragraph (1), does protect the artwork that serves as the underlying NFT asset. However, this law does not explicitly regulate whether the purchase of a token automatically transfers economic rights as required in a written agreement under Article 16 paragraph (2). (National 2021)

Finally, regulations from the Commodity Futures Trading Regulatory Agency (Bappebti), such as Bappebti Regulation Number 8 of 2021 in conjunction with Bappebti Regulation Number 13 of 2022, only regulate the list of crypto assets that can be traded on physical crypto asset markets. These regulations focus on fungible assets with market liquidity, so not all types of NFTs are accommodated.

On the other hand, Singapore has established a structured and adaptive digital asset regulatory framework to address developments in financial technology. Through the Payment Services Act (PSA), the government provides a clear legal basis for digital asset service providers, including exchanges and marketplaces that facilitate the trading of blockchain-based assets like NFTs.

From 30 June 2025, through a new regulatory framework under the Financial Services and Markets Act 2022 (FSMA 2022), MAS expanded its oversight of digital token service providers (DTSPs), including entities operating in Singapore but serving clients overseas (Allen & Gledhill., 2025.)

The PSA not only regulates licensing aspects, but also includes compliance requirements related to risk management, prevention of terrorism financing and money laundering, and supervision of digital asset-based payment activities.

In addition, the Monetary Authority of Singapore (MAS) has issued various technical guidelines to ensure that operations within the digital asset ecosystem maintain financial system stability and consumer security. The approach taken is specialized, as each entity involved in providing digital asset services is required to obtain a license according to the category of service they provide. MAS also emphasizes the need for regular smart contract

audits as a mitigation measure against potential technical vulnerabilities that could be exploited by cybercriminals.

Information transparency is a key focus for Singapore in providing consumer protection. Every digital asset marketplace operator is required to provide clear, accurate, and easy-to-understand information regarding investment risks, asset characteristics, and applicable fee structures. For example,

Some literature suggests that crypto token and exchange services are subject to AML/KYC and risk disclosure requirements, as well as oversight of service promotion — for example, service providers must not promote DPT in a misleading manner in public advertisements, social media, public crypto ATMs, or misleading referral campaigns, (CNPLaw., 2025.)

This approach reflects both a precautionary principle and a commitment to fostering responsible innovation. Therefore, it is understandable that Singapore's digital asset legal framework is not merely repressive but also progressive and collaborative, ensuring a balance between the development of new technologies and the security of the digital trading ecosystem.

Furthermore, consumer regulations should protect buyer rights by requiring platforms to provide dispute resolution mechanisms—for example, mediation or arbitration for disputes over ownership, fraud, or copyright claims; and provide refund or compensation options in the event of counterfeit, duplicate, or fraudulent NFTs—as emphasized in digital asset consumer protection literature. (Ismail Ranga, 2025)

In terms of intellectual property, new laws or revisions to existing laws (e.g., copyright laws) need to explicitly include provisions that NFTs are simply digital certificates of ownership of tokens representing assets, and that copyright in digital works remains with the creator unless there is a written agreement explicitly transferring those rights. Such an approach is essential to protect creators' rights and ensure consumers understand what they are purchasing (tokens vs. copyright). Research on the "legal problems of using NFTs in relation to copyright" has shown that without specific regulations, the risk of copyright infringement and ownership conflicts is significant. (Ni Putu, 2025)

Additionally, regulations must address consumer privacy and data protection — particularly since some NFT transactions may involve personal data, and public blockchains struggle to meet the “right to be forgotten” requirements of data protection regulations in many jurisdictions. (Hogan Lovells. 2023)

Thus, a comprehensive draft regulation for NFTs in Indonesia should include a legal definition for “NFTs / blockchain-based unique tokens,” the business category of “NFT marketplace service providers,” licensing/permit and registration obligations for marketplaces, KYC/AML requirements, metadata transparency and intellectual property rights status, consumer information disclosure obligations, dispute resolution and compensation mechanisms, copyright restrictions (separate from token ownership), and data protection and privacy provisions.

The implementation of this regulation will minimize the risk of fraud, copyright infringement, and market manipulation, as well as provide legal certainty for creators, collectors, and consumers, while also opening up space for the development of a healthy, fair, and sustainable NFT market in Indonesia.

Technically, regulations should require independent audits of smart contracts to address security gaps. Consumer protection should also be strengthened through platform requirements to verify the authenticity of works to prevent copyright infringement, as well as transparency regarding investment risks. Finally, given the global nature of NFT transactions, international cooperation is crucial to facilitate law enforcement against cross-jurisdictional cybercrime.

CONCLUSION

Based on the research results, it can be concluded that the development of the Non-Fungible Token (NFT) ecosystem in Indonesia is not matched by the availability of adequate regulatory instruments to protect consumers and market players. Fraudulent methods such as rug pulls, phishing, smart contract manipulation, and copyright infringement pose a real threat due to the lack of legal certainty. Existing legal instruments—such as the ITE Law, the Consumer Protection Law, the Copyright Law, and Bappebti regulations—remain partial and unable to address the characteristics of NFTs as unique blockchain-based digital assets.

This research emphasizes the need to establish a specific regulatory framework that is risk-based, adaptable to technological innovation, and oriented toward consumer protection. Such regulations should include a legal definition of NFTs, marketplace licensing and oversight obligations, smart contract due diligence mechanisms, verification of work authenticity, copyright regulations in NFT transactions, KYC/AML requirements, information transparency, and mechanisms for dispute resolution and compensation.

With comprehensive regulations in place, Indonesia can create a safe, transparent, and sustainable NFT ecosystem, while also responsibly encouraging digital economic innovation.

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