

Meta-Mortgaging

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Meta-Mortgaging: Islamic Law Review on *Marhūn* Issues

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ABSTRACT

To this date, technology has seen massive development and, it influences the economic field. The emergence of the metaverse has become an inevitable part of this progress. It serves as a digital world, wherein everyone is able carry out a vast array of activities, including economic transactions. The emergence of digital assets, that has encouraged serious discussion, is inseparable from Islamic law. One of these digital assets is the Non-Fungible Token (NFT). This digital asset is the focus of this study, specifically on for its possibility to become material guarantees. This article employs a qualitative study and presented descriptively through the perspective of Islamic law. The result of this study is that the pledged-object (*marhūn*) has certain primary condition for it to be functional, namely: it is a property, it has value, it can be traded, its asset value is clearly known, and it is actually owned by the guarantor (*rāhin*). The concept of *marhūn* as a valuable object ultimately answers the question whether the NFT is included in the *marhūn* category. However, since NFTs do not stand alone if the transaction currency used in the metaverse is cryptocurrency, al-rah transactions using NFTs become less favourable considering cryptocurrency is deemed to be haram.

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1. Introduction

The current development of the global world technology is displaying extraordinary acceleration. One of the advances presently is the shift from the world of actual reality to the world of the meta version (metaverse) as the fourth wave which opens new spaces through the Virtual Reality (VR) and Augmented Reality (AR) (Mystakidis, 2022). The development of this relatively new meta world essentially refers to the terms introduced in a novel written by Neal Stephenson entitled *Snow Crash* in 1992 (Dwivedi et al., 2022), a term that had initially been fictional to then be materialized in this century. Through internet connectivity, the metaverse creates a parallel relationship that combines the physical world and the virtual world so that users can interact socially by using their digital avatars (Lee et al., 2021).

By definition, metaverse is a combination of two words, namely 'meta' and 'universe'. Meta refers to the Greek word which translates into transcendence. While the word universe is as

known in English (Wang et al., 2022; Zyda, 2022). Hence it is presumable that this meta world is precisely mirroring another world that lives and develops in the digital realm. This world facilitates virtual public spaces which, just like the real world, have their own currency. Thus, the existence of a virtual space that is parallel to the physical world encourages humans as physical beings to turn into 'digital beings'. Work, *rendezvous* with friends, shopping, trading and other physical activities can turn into digital activities in these virtual spaces (Türk, 2022).

In principle, the progress brought by internet technology is expected to encourage positive developments, that the virtual world is meant to have a good impact socially (Gunawan & Anggriawan, 2021). However, along with the massive development of the virtual world, its very own negative aspects are emerging (Dwivedi et al., 2022). One can reflect from the hustle of the social media that has massively influenced its users. Social media, which is also part of the current meta space, has addictive nature, thus dislocating the user's actual social relationship with each other in the real world (D'Arienzo, Boursier, & Griffiths, 2019). This negative nature additionally shows the three natural negative effects of the metaverse, namely awareness, certainty, and non-practice (Xu, Zou, Chen, & Zhou, 2022). Upon closer examinations, reduction in personal communication, dependence on the virtual world, decreasing physical activity, harassment/violence included in the realm of cybercrime, and leakage of personal data have also taken their toll (Bale et al., 2022).

One implication that must be underlined is in the realm of law. The rapid development of this metaverse has not been responded by equally rapid legal regulations on the digital world. Richard L. Pate in his research details four legal issues regarding the development of the metaverse, namely the issue of collecting and using personal data, the issue of the private sphere and Artificial Intelligence, the issue of the legal position of cryptocurrency, and the issue of the new development of legal naturalism (natural law) (Pate, 2022). This also includes the position and legal responsibility of an avatar as the personification of an individual in the real world (Cheong, 2022). Other studies specifically mention the impact of law on the realm of intellectual property rights. Levan Nanobashvili describes that the meta world poses the difficult challenge of regulating intellectual property infringement in the metaverse. The emergence of Non Fungible Token (NFT), for example, is a challenge in itself for the enforcement of intellectual property laws such as copyrights and trademark rights. For example, for a work⁷⁵ that is converted to an NFT, there is no mechanism in the NFT platform that can validate that the creator of the NFT is the original creator of the work. Even though there are settlements and legal solutions in this regard, it remains unclear and uncertain whether the creators and developers from the meta world have a sense of willingness to accommodate such issue. (Nanobashvili, 2022).

¹ Intellectual Property is an intangible asset which in its development, one of the issues reserved for intellectual property rights in the real world is regarding its use as material good that can be pledged as collateral or mortgaged. Research in this study has been widely studied by academics (Crawford & Strasser, 2008; Davies, 2006; Ge et al., 2021; Jarboe & Ellis, 2010; Mashdurohaturun, Gunarto, & Nugroho, 2021). The existence of the metaverse, especially NFTs, raises several legal issues regarding the possibility of whether NFTs can also be the objects of collateral or pledges. This issue surfaced when the NFT first emerged and became a digital asset that is open for transaction in the meta world. The possibility of NFT as part of the material that can be pledged or mortgaged is a legal question (Helmanis, 2022).

The birth of the metaverse and its various studies in the realm of intellectual property in the form of NFTs cannot escape the study of Islamic law. Some, for example, examine the issue of

NFT transactions in Islamic law (Febriandika, Fadli, & Mi'raj, 2022), the view of Islamic law regarding NFT as material good in the metaverse (Liv, 2022), metaverse as a supporting system for economic development and Islamic financing (Katterbauer et al., 2022), as well as cybercrimes that occur in the metaverse from the Islamic perspective (Katterbauer, Inusa, & Cleenewerck, 2022). Nonetheless, a number of Islamic legal studies related to the metaverse remain few that highlight the issue of guaranteeing digital property owned in the meta world.

Based on the aforementioned legal issues and several studies regarding the metaverse, this article addresses how the Islamic law positions digital assets such as NFTs as collateral in the metaverse. The study of collateral in digital assets in this article will be closely related to the principle developed by Ulama in various schools of law which states that everything that can be sold and purchased can also be guaranteed. Yet of course, a review of digital assets as collateral in Islamic law is discussed in detail from the elements and the legal requirements of material guarantees in Islam which are popularly known as *al-rahṅ*. This study presents two formulations to be discussed, namely material guarantees and their objects in Islamic law and guarantees for digital objects and their ownership in an Islamic perspective.

2. Method

This is a qualitative study involving secondary data and used normative legal review as a method with Islamic Law point of view on *Marḥūn* issues. While, the approach used in this research was conceptual approach to reveal the concept of collateral object in Islamic law. The data in this study were obtained from reference literature consisting of books, journal articles, and research results that are related to the present topic. Through the literature study, the analysis technique conducted through in-depth analysis and it presented in a descriptive-structured manner within the frame of Islamic Legal Principle on mortgaged-things. Thus, the presentation in this article can be understood as a sequence that is coherent and logical, and connected between one part and another.

3. Discussion and Analysis

3.1. Collateral object (*marḥūn*) in Islamic law

One of the favourable efforts to fulfill financial needs is through the process of applying for financing by using collateral. Islamic law accommodates this scheme as *al-rahṅ*. The *al-rahṅ* contract is intended as a security of a right or a guarantee of the payment of something. Thus, this guarantee that is provided will be accessed by, for example, the creditors to repay the debtors had they been unable to repay otherwise (Al-Dardir, n.d.; Al-Du'ailaj, 1985; Al-Samarqandī, 1984; Al-Syarbini, 1997; Al-Zuhaili, 1985; Qudāmah, 1997). Similarly, in guarantee law, this scheme is an *accessoir* contract related to the legal maxim of *accessorius sequitur principalem* (Pegues, 1939; Steyn, 2009). Islamic jurisprudence refers to this *accessoir* contract as *al-'uqūd al-tab'iyah*, hence *al-rahṅ* becomes a contract that follows the main contract (Al-Shalahin, Zanyimawi, & Al-Buraisyi, 2021).

The mechanism of the *al-rahṅ* contract, as it is known, has elements that must exist in order for this contract to be declared a valid contract. These elements, or what is commonly referred to as 'pillars' (*rukun*) in the realm of fiqh, namely *ṣighah* (offer and acceptance or '*ijāb*' and '*qabūl*') *rāḥin* (guarantor), *murtahin* (collateral/pledge recipient), *marḥūn* (object of the

collateral/pledge), and debt (Faakihin & Hassan, 2018; Fedro, Lahuri, & Ghozali, 2019; Ilyas, 2019).

One of the elements in *al-rahn* that is noteworthy is *marhūn*. As part of the material guarantee, the existence of *marhūn* plays the key part in this contract. The assumption is that the *al-rahn* contract will not occur or will otherwise be in vain if there are no items that are pledged or mortgaged. This guaranteed item is certainly inseparable from the conditions that apply ('Ukkaz, 2019). This provision is carried out of course in order to ensure that the *marhūn* distributed to *murtahin* are goods in accordance with the principles of the Islamic Sharia.

Marhūn has several conditions to be met by the guarantor. In general, the term *marhūn* refers to the principle of *kullu mā yaṣiḥḥu bai'uhu yaṣiḥḥu rahnuhu* (anything that can be sold and purchased can be pledged as collateral) (Al-Tuwaijiri, 2009; Al-Zuhaili, 1985). These conditions can be stated as: 1) included in the category of assets; 2) has value; 3) can be traded; 4) something whose details are clearly known; 5) something owned by *rāhin* (Hidayah, 2014; Supriyadi, 2014; Syahrullah, 2019). These are the five famous conditions agreed upon by the Islamic jurists. Scholars of the schools of thought have different views on several conditions, namely related to the form of *marhūn* as an object and related to *marhūn* as shared ownership (*musyā'*). The Maliki School of thought states that something that is guaranteed/mortgaged can be in the form of benefits (Al-Zuhaili, 1985), while the Hanafi School believes that joint ownership cannot be guaranteed/mortgaged (Al-Ahmadi, 2017; Al-Ghazi, 2021; Al-Sabi'i, 2021). Apart from all that, the five *marhūn* conditions mentioned earlier become the parameter for the development of the *al-rahn* contract today. This development also influences the perception of property or something that is considered valuable, the definition of an item/object, its possibility to be traded, and the ownership of the object itself.

Philosophically, assets in Islamic Sharia cannot be separated from the legitimacy of Allah as the owner. Humans as creatures only have access to its benefits (Audah, 1984) hence human beings are deemed as caliphs who guard and obtain the right to use of what belongs to Allah. The right to use this is then legally protected so that humans may claim 'ownership' of the assets that are used (Bashir, 2002). Something that can be used by humans hence it is considered an asset/property has several elements. Refers to the definitive differences regarding assets in the schools of fiqh, Muhammad Wohidul Islam (1999) specified the characters of property, namely: 1) instinctively desired by humans, or in the modern aspect of commercial value; 2) something that can be owned or controlled; 3) something that can be stored; 4) useful in accordance with sharia reviews; 5) ownership of something can be handed over. We can see that through these five elements, wealth becomes part of the transaction process of one human being with another human being. Human's need or desire for something encourages them to go through the process of ownership, thus rights and obligations arise from there. The *al-rahn* contract, for example, is carried out by someone who is in need of financial capital, thus in order to obtain it they guarantee/mortgage something of value to the *murtahin*. Likewise with other contracts that apply in Islamic Sharia.

The value contained in something that is ultimately called a property is principally returned to the humans themselves or some of them (Niazi, 2016). This can be assumed through the first element, namely something that humans want or desire makes it something of value. But in Islam, this valuable property has limits. Not everything that is desired will be of value, which is why the element of 'compliant with sharia' plays an important role in every sharia contract.

In addition to the element of value in an asset and the element of conformity with sharia, the element of ownership or control over something is equally important. This element, in

principle, goes back to the scholars' debate on whether what is called property and what can be owned is something that is material or immaterial, such as benefits. Jumhur scholars view that assets that can be owned are material or benefits. On the other hand, Hanafiyah tends to only have material possessions or have control over assets (Ali, 2003; Nurlaelawati, 2010). Something that can be owned will be connected to whether something is useful or beneficial or not for the owner, beside the certain consideration by humans of it being valuable. Something that can be owned or controlled is also related to the legality of ownership. Something can be labelled as an individual property of a person when it is indeed owned and controlled by the person. The assumption is that if something is in the control of another person, then they cannot claim it as their property unless there is a legal contract that has an impact on the transfer of the ownership right.

Table 1

Conditions of marhūn agreed by Islamic scholars and elements of property

<i>Marhūn</i>	Property
Categorized as property	Wanted/desired by humans
Has values	Can be owned and/or controlled
Storable	Can be stored
Asset value is detailed and clearly known	Beneficial in accordance with Islamic Sharia
Guaranteed asset is actually owned by <i>rāhīn</i>	Can be handed over

Contemporarily, the Jumhur jurists' definition of something as a valuable asset accommodates material and immaterial objects in the form of benefits in a more accommodative manner than the Hanafiyah view (Rosele et al., 2022). As we see that currently the development of assets that can be guaranteed or can become *marhūn* are not exclusively limited to objects that are physical in nature, but also that are immaterial in nature. As an example is intellectual property rights that are not materially tangible (Bashir & Khan, 2016; Mashdurohatun et al., 2021; Mukhtar, Zainol, & Jusoh, 2018). Even then, this intangible type remains a matter of debate, as is the debate over what is a property in the previous paragraph. However, this is considering financial activities that are currently developing towards the ownership of a non-physical asset (Ebrahim, 2021), rather, for example, holding proof of ownership or digitalized versions of data. Furthermore, in the digital realm that does not stop mutating, it is as if challenging the legal perception of the world of digital information about its possibility of becoming a valuable intangible asset. (Zulhuda & Ansari, 2018).

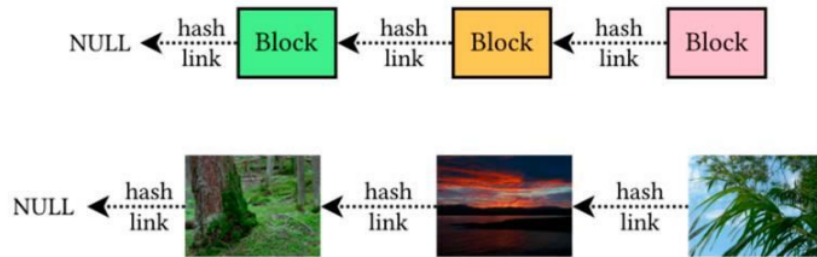
With that being said, when dealing with the development of the current meta world, where all assets are digital assets, digitalization of *marhūn* will legally return to referring to the elements of 'something' labelled as property.

3.2. The issue of digital assets as collateral objects in Islamic law

The birth of bitcoin in 2009 changed the view of asset ownership where conventionally physical assets such as houses, land and vehicles, have turned into digital assets. Bitcoin development at its peak occurred in 2016 to 2018 and experienced a decline in the period 2018-

2019 (Kaal, 2020). Digital assets can be defined as digital or binary data sets that are autonomous, uniquely identifiable, and have a certain value (Kud, 2019). Digital assets are those that utilize cryptographic technology and can be in the form of virtual assets or electronic assets including but not limited to cryptocurrency, security tokens, up to NFTs. However, the storm development of digital assets leads to various problems. Especially in this context, its position as collateral for accessing loan becomes one of the issues. The NFTs, for example, are fetterless that everyone can freely access the all kind of NFTs. This liberal nature of NFTs is as simple as taking picture of self or other IDs and sell it in meta platforms as NFT. It then arises a dark nature of digital assets where people are misuse it (Norasari, 2022). Other aspect of the problem is that the NFTs are inseparable from Cryptocurrency. Many have known that all kind of crypto-currencies are volatile. It will be a problem then when someone mortgages his NFT for the loan and then suddenly the NFT's price in crypto is diving deep, far away from the loan amount (OJOG, 2021).

To this day, with more and more people creating digital assets, it is altering the priority of capital owners to be able to benefit from owning these assets. In contrast to stocks which have ties to real assets, digital assets such as crypto only exist in the virtual world. The birth of digital assets cannot be separated from the existence of blockchain technology. In order to understand how blockchain technology works, it is necessary to first understand what is stored in a single block. Each block contains three types of information namely data, hash, and a pointer to the hash of the previous block. The hash of the block is the unique identifier for the block. The hash of each block will be different based on the data stored in the block, so if the data is changed, the hash will also change. Addition of the previous block hash is the key to the success of blockchain technology. The security of blockchain technology is based on the characteristics of the inter-block chain. New blocks are added to the chain by calculating the hash of the previous block and using it as part of the data for subsequent blocks (Ali & Bagui, 2021). The illustration of the blockchain can be described as follows (Koptyra & Ogiela, 2020):



The digital asset market has been made possible by the development of the internet with decentralized technology and cryptocurrencies. The emergence of bitcoin triggered the emergence of other cryptographic assets such as Ethereum. NFT as one of the most popular digital assets today is one of the services developed based on Ethereum (Kim & Yong, 2021). People from all over the world are increasingly interested in making, selling, buying, and investing in NFTs as one of the digital assets stored on the blockchain (Ali & Bagui, 2021). The main characteristic of the NFT is its uniqueness, where the NFT is second to none, thus this NFT becomes impossible to be exchanged with other similar NFTs. (Nagpal, 2021). As an analogy, if someone owns the painting of "Monalisa" by Leonardo Da Vinci, they will not be able to exchange it with the painting of "Starry Night" by Van Gogh because each of these paintings has a different value and uniqueness. The uniqueness of the NFT is what makes it a way to identify someone or something that cannot be replaced. This type of token can be used on platforms that offer collections, in-game items, a person's tweets, photos, songs, or seat

numbers at a soccer match (Ali & Bagui, 2021). The sole proprietorship in these NFTs is guaranteed on the Ethereum blockchain, so there can only be one authorized owner at a time, which guarantees that no one can change the ownership records or make copies of these NFTs.

Table 2
The Characteristics of NFT as described by Buterin (2015):

NFT's Characteristics	1. <i>Verifiability</i>	NFT Token metadata and ownership are publicly verifiable
	2. <i>Transparent Execution</i>	All data on an NFT such as its minting, sales and purchases are publicly visible
	3. <i>Availability</i>	NFTs are always available to buy or to sell
	4. <i>Tamper-resistance</i>	Trade records regarding NFTs are kept continuously and cannot be altered or manipulated in any way after transactions are confirmed
	5. <i>Usability</i>	Each NFT has an up-to-date proprietary information and this information is clear
	6. <i>Atomicity</i>	The NFT trading process is atomic
	7. <i>Tradability</i>	Every NFT can be traded and exchanged

Any object that can be digitized can be converted into an NFT. The standard token used in NFTs is ERC-739, which specifies some elements that are mandatory and other elements that are optional. The first element of an NFT is a number known as the Token ID which is generated when the NFT is created. The second element is the blockchain address which can be viewed anywhere in the world using a blockchain scanner. The uniqueness of the token is that there is only one combination of elements in the world. Most NFTs also include a link to where the original work can be found. The NFT is not the work itself but a unique digital token linked to the original work (Guadamus, 2021). There are several types of NFTs that are often traded, namely works of art, collections, objects in the virtual world, and digital characters in games (Dowling, 2022).

An NFT starts with registering ownership of a digital asset on a blockchain, generally on the Ethereum network. These digital assets can be sold with a change of ownership and payment of accepted cryptocurrency registered on the blockchain. NFTs are essential products required for trading within the metaverse. NFTs serve as a proxy for asset ownership in the metaverse. For example, a piece of land in the metaverse is an NFT. Therefore it is not merely works of art or game items for collections, presently owner of famous brands such as Nike (Kadry, 2022), Gucci (Hirsch, 2022), and Miller Lite (Ahn, Kim, & Kim, 2022) penetrates the metaverse to increase the economic profit of their company.

Currently, the metaverse is still in its early stages, by facilitating gamers to enter the digital world with a different experience. Currently there are several games that use metaverse technology such as Roblox, Fortnite, and Sandbox. However, experts predict that the

metaverse will later be utilized for other interests such as education, business, and finance (Chen & Bellavitis, 2020; Díaz, 2020). The concept of the metaverse has existed since 1992 and became very popular in 2021 where Mark Zuckerberg, the owner of Facebook rebranded his company to Meta. Web 2.0 technology shifted to Web 3.0 which is currently still in the development stage. Web 3.0 is not limited to users and screens, but is a network in a multi-device, multi-channel, and metaverse world. The Metaverse is a virtual world where a person can assume a digital identity or avatar, and live and interact in that world with other users (Rawal, Mentges, & Ahmad, 2022). Internet support and equipment like AR and VR headphones and goggles are a feature of the metaverse. In simple terms, one can enter a metaverse through the following path:



Image 2: Mechanism of Metaverse

Virtual spaces within the metaverse are fully interoperable with each other. Platforms like Decentraland even facilitate buying and selling of land within the metaverse. Digital wallets can be used to make buying and selling transactions for digital assets in the metaverse, one of which is NFT. In the metaverse, NFT is used for the following purposes (Fonarov, 2022):

- a. Virtual Marketplaces. With the VRChat app, Sellers can easily provide links or previews to assets on the web or mine assets directly within the VR landscape. For example, the Nike brand entered the metaverse under the name "Nikeland" which currently has its own studio that makes NFTs from Nike products.
- b. Art Gallery. Many museums display NFTs of their art in the Cryptovoxels metaverse, which uses the Ethereum blockchain.
- c. New Frontiers. Decentraland is a virtual territory that sells digital land as NFT and has its own cryptocurrency.

Along with the development of human needs in the metaverse, several platforms currently even provide loan facilities with the existence of Decentralized Finance (DeFi) (Chen & Bellavitis, 2020). DeFi is a digital financial technology that is the foundation of bitcoin and other crypto assets in the metaverse. One of the advantages of DeFi compared to conventional financial institutions such as traditional banks is that in DeFi, it does not require authorization to validate a transaction due to its decentralized nature. DeFi uses smart contract technology in the blockchain as the basis for transactions. As a digital asset, NFT can currently be used as collateral (Azari & Malek, 2022).

Observing the facts and the development of the metaverse and the digital assets within, the primary element that can be underlined is the nature of property owned within the scope of digital assets. Returning to the concept of assets in the previous fiqh, then the value of an item becomes one of the factors that an asset can be economically viable. Digital asset transactions in the meta world in Islam are in principle permissible if they refer to the fiqh rules that state, "Al-Aşlu fil Mu'amalah Al-Ibāḥah" (initially all forms of muamalah are permissible) (Febriandika et al., 2022). However, when it comes to the issue of digital assets in the meta world, it is necessary to look into its components. One component that influences the emergence of legal issues in Islam is the use of a medium of exchange in every transaction in

the metaverse. The medium of exchange in question is not real currency and has not been recognized in law, and has various types of digital currency called Cryptocurrency. Some of the well-known ones used are Bitcoin (BTC) and Ethereum (ETH). Thus, transactions related to NFTs of various types do not use the real currency that we know today, instead, they use the cryptocurrencies (Ante, 2022).

¹ The status of Cryptocurrency as a medium of exchange remains debatable in fiqh studies, among those who deem it permissible (Katterbauer, Syed, et al., 2022) and those who do not. So far, the popular view is the prohibition of cryptocurrency, both as an investment asset and as a medium of exchange (Selcuk & Kaya, 2021). Its impermissibility is more due to its tendency to serve as *qimār* (gambling) that is speculative, uncertain and leads to possibility *gharar*. When this digital currency is deemed problematic, then certainly it will be related to its position as a medium of exchange for all NFT transactions in the metaverse. NFT as an intangible digital asset may be understood as a product that is, in principle, legitimate to be transacted as an object of value. However, this principle becomes disruptible when the currency used is the one that is not or has not been fully recognized.

In the light of that, from this direction, NFT as a digital asset in the metaverse and its correlation with the fiqh of assets can basically serve as collateral object (*marhūn*). However, there are matters surrounding *rahn* transactions need to be attended, one of which is the use of cryptocurrencies in meta-world transactions. Thus, financial activities through virtual space can ⁷⁷ be thoroughly entered and in accordance with sharia. Even though it may take time, because the use of Cryptocurrency as a medium of exchange is relatively new and is still in flux in the realm of legality (especially in the sharia terms), the possibility of its use in the future still exists when the sharia elements are met. When that happens, then the NFT as *marhūn* can freely be used as collateral for debt or financing assets.

4. Conclusion

The birth of the metaverse as part of the Internet of Things (IoT) which contains various activities, one of which is the economy, has become a key subject that is widely discussed. Material guarantees, which in Islamic law is called *al-rahn*, is a small part that is explored in the metaverse world. The existence of valuable objects in the metaverse that are included as digital assets, one of which is called an NFT, in principle, has satisfied the criteria to be labelled as asset that can be pledged as collateral for certain debt or other financing. However, the existence of NFTs and their transactions are in fact closely related to the currency used in the process, namely Cryptocurrency. The tug-of-war debate regarding its legality in Islamic Finance causes the process of material guarantee transactions using NFT to be 'disrupted' as well as its legality. When Cryptocurrency eventually fulfills the Shariah Compliant elements, then NFT as *marhūn* can be used. Indeed, this study serves only a limited description and analysis on the possibility of using NFT as *marhūn*. Therefore, this study will continue to develop continuously, especially regarding other possibilities such as guaranteed NFTs in the real world. Thus, various addressed questions can be forecasted like on how far the NFTs sighted from conventional method bank are adequate to be mortgaged in Islamic Law or the readiness of Islamic finance institutions to willingly adapt and accept the NFT as digital assets.

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