



Forecasting the Adapted-Meta Technology on Shariah Compliant Mortgage

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Abstract. Currently our life has stormed by fast development of meta-technology that could transform physical being into digital verse. This fact has affected many issues, one of which is mortgage activities. The problem is that we tend to follow debating issues on its several controversies and not trying to foretell on what side it could be a shariah compliant. The study aims to forecast meta-mortgage activities in accordance with Islamic Shariah. This article uses qualitative study which employs secondary data. Those data analyzed through desk activities and it narrated descriptively in consecutive logical structure. There are two issues that have been discussed by Islamic scholars on Islamic mortgage, both are utilization of cryptocurrency and the Non-Fungible Tokens (NFTs). The based issue on cryptocurrency is its volatility and the issue behind NFTs is its legal ownership that frequently has been violated. The adaptation of metaverse on mortgage activity will not occur when both mentioned-issues are not legally cleared. Thus, the possible image of the adaptation is likely in the far future, it depends on how far the legal regulation (laws and fatwas) will answer the shariah compliant on meta-mortgage.

Keywords: Metaverse, Shariah Compliant, Mortgage, Cryptocurrencies, NFTs.

1 Introduction

The fast and ongoing development of metaverse and its issues are widely studied by many. It is inseparable from its immense impacts on people in their job, business, societal exposure, education, healthcare, and much more. Including in this effect is legal issues in various case such as trust, privacy, information disclosure and others [1], [2]. Furthermore, the utilization of metaverse technology has been more popular within the recent pandemic era, where people have been obliged to do their activities at their home and living in non-face to face situation [3]–[5]. This meta-technology, then, ignites scholars and academicians from multi disciplines to freefall into metaverse area. One of the ignitions is the involvement of metaverse in Islamic Economy field. Islamic financial institutions have been forced to adapt the digital realm in their financing products. However, this adaptation also leads to several controversies which deal with the Syariah appropriateness. These debated-controversies employ numerous problems such

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as *gharar* and price volatility due to the utilization of cryptocurrencies [6], [7]. Based on both problems, the founded solution usually gave image on how the economic activities in metaverse aligned with Islamic law [8].

The academic curiosity shows that this meta-technology has hollows to be filled, so that the involvement of metaverse in daily life could be beneficially-used. The attentiveness study on metaverse is also has been mapped using content analysis and it found 40 reliable journal articles on metaverse [9]. Along with those sources, specific issues in Islamic Economy issues that deals with metaverse has added academic attention. These subjects deal with several topics such as NFT transactions in Islamic Law [7], [10], NFT as material or good in Islamic Law [11], the Islamic concept of wealth and its relation with digital assets [12], metaverse as supporting development of Islamic Finance [6], and occurred-cybercrimes in metaverse viewed from Shariah perspective [13]. Additionally, the metaverse also has been investigated through specific economic activities such as Islamic mortgage [14].

Within those issues, although it has studied on economic activities and its concept in Islam, it tentatively describes the current debate on whether the Islamic economy activities in metaverse is permitted or not. The volatility of cryptocurrencies, vulnerable data-breaching, digital crime movements are part of the flowing debate of meta-economic in Islam. However, the current attention of Islamic scholars in this context tends to step on debating its legal permission and not trying yet on projecting the adapted-meta technology. Specifically in this study is the very certain topic on Islamic mortgage in metaverse. Even so, this particular topic on meta-mortgaging in Islam is less-examined by scholars, including in its adapted-meta technology. Thus, the mortgage topic in Islam through its adaptation project of meta-technology has a chance to be discussed. Foreseeing the mortgage contract in a meta-mapped model could bring adaptive technological insight in the future that compliant with Shariah principles.

This article intends to project the future output of Shariah compliant mortgage which fully adapt with metaverse as digital world. Achieving this object, this research generally involves qualitative method by describing narratively from various data collected from desk study. As for shariah compliant, the technological adaptation in mortgage approached from Islamic Law review.

2 Method

This article employs qualitative method as it is describing no quantitative data. The data itself compiled and evaluate through desk evaluation. Compiled data sourced from secondary sources which include the materials such as books, journal articles, and research reports. It then analyzed descriptively through doctrinal approach within the frame of Shariah compliant aspects in Islamic contract activities.

3 Result and Discussion

3.1 The Main Issues on Mortgage in Metaverse

The issues around mortgage and its contract activities in metaverse are attached with the prohibition character of finance in Islam which are *ribā* (usury), *gharar* (speculation), and *maysir* (gambling) [15]–[17]. As we know, metaverse is digital universe that parallel with material world where people are mirroring their physical activities [18]. In this context, one of these activities is mortgage contract in which people can having their digital assets guaranteed to get financial benefit. However, the metaverse has its specific reality like utilizing its own currency famously known as cryptocurrency [19]–[21]. Also, all of the assets stored in this meta-world is digital and intangible. So, when it related to mortgage it will employ digital assets as *marhūn* (collateral object) and cryptocurrencies as medium of exchange.

On the other hand, the employment of cryptocurrencies is the house of controversy [22], where Islamic scholars are debating on its permissibility [23] and its prohibition [24]. Whereas in collateral object, its intangibility deals with what so called as Non-Fungible Tokens (NFTs). These NFTs, as tokens, are being a part of digital asset [25] where it currently acceptable to be mortgaged [26]. But, the Islamic mortgage contract in metaverse is disturbed with the cryptocurrencies as the medium of exchange due to its high volatility [27]. This volatile nature can lead to prohibition character in Islamic finance that is *gharar* (speculation), and *maysir* (gambling) [28].

Although the NFTs as digital asset is permissible to be mortgaged [14], but it also has been swarmed by many infringements [29]. The violation usually refers to the ownership rights or copyright issues. Such violation is like taking picture of an art, mint it as NFT and sell it to metaverse market without the consent and permission from the artist [30], [31]. Moreover, by January 2022, over 80,000 of NFT infringement had been detected by DevianArt Protect [32]. Thus, this infringement relates to one of *marhūn*'s requirement that the object is under the pledger ownership or if it is not then the pledger is mortgaging the object under the permission of the owner.

Based on the main issues above, there at least two prominent aspect that should be cleared when we are dealing with Islamic mortgage contract in metaverse. Both are the medium of exchange aspect and the ownership of digital assets or in this context known as NFTs. Those two aspects are double-edged, unseparated from each other. That is because all finance or investment activities in metaverse is no other than using digital currency known today as cryptocurrencies. As Ante [33] and Nadini [34] studied that the involvement of cryptocurrencies such as Ether (ETH) is not only showing the relationship of trading and payment, but also the market of both digital assets (cryptocurrencies and NFTs). It is impossible in Islamic law allowing the mortgage contract where one of the main requirements is breached. Therefore, both main issues will still shadowing the Islamic mortgage practice as long as the aforementioned prominent issues are legally resolved. It is like what Siswanto [27] said in regard of cryptocurrency in Islam that this digital currency will unrapidly foster in Muslim countries as they feel hesitant to employ this currency for its high volatility.

3.2 Forecasting the Possibility of the Adapted-Meta Technology on Islamic Mortgage

Metaverse is actually a revealed fiction from 'Snowcrash', a novel written by Neal Stephenson in 1992 [35], [36]. After 30 years from Neal's imagination, the word of metaverse in his novel has concretely emerged as an advance of technology. However, the growing of this technology is mushrooming: fast and exceeding the legal development on its issues. Thus, the advance of metaverse is awakening the must legal concern on this virtual world in order to challenge its unexpected negative impacts [37] and risks [38]. Therewith, it encourages recommendation for statutory remedies [39] and rising the proficient law [40], [41].

Unexceptionally, it also a prominent concern in Islamic Law where nowadays metaverse stand as an alternative investment space for people. Islamic mortgage as one of financing activities will depend in how this technology is adapted. Referring to the mentioned-main issues before, meta-mortgage activity in Islamic law is based on two aspects both are the medium of exchange and the digital assets. When both of these aspects are breached, then the meta-mortgage is no longer shariah compliant. But, is there any future possibility where meta-mortgage will comply with shariah principles?

Forecasting the answer to the question is, once again, depend on the legality of digital currency and the ownership of NFTs. As Siswanto [27] started in his study, he foretold that muslim people would be reluctant to employ cryptocurrency as a payment tool, because of its controversy and its tendency to be legally forbidden in Islam. Hence, the shariah compliant of Islamic meta-mortgage should be backed with legal digital currency for exchange or payment tool.

But then, the readiness of Islamic financing institution to adapt the meta-technology is also the ground of Islamic financing activities. As Riyadi [42] stated in his conclusion that Islamic banks are ways behind then conventional banks in adapting the metaverse. The adaptation is not only creating meta version of Islamic financing institution, but also considering what medium of exchange will be used and tightening digital security from ownership infringements.

Along with the adaptation itself, the component of Shariah compliant mortgage in metaverse should be supported with legal regulation. This regulation should be existed to maintain Islamic mortgage. Hence, the relation between fatwas and statutes is a must so that the adaptation of metaverse in mortgage activities is in accordance within the law. We may conclude that the adaptation of meta-technology in Islamic mortgage contract could be achieved in far future if the alternative of digital money is slowly regulated

4 Conclusion

Metaverse is indeed an advance of our current technology. Its utilization has been globally adapted, mimicking the real physical activities in real world. One of its prominent effects of this technological development is in economic activities. Despite of the positive innovation in human history, the birth of metaverse also has negative loopholes. Especially in this context is the non-shariah compliant in meta-financing activities.

Such activity like mortgage in Islam is always deal with money and the mortgaged-goods. In meta world, as famously known, the ‘money’ is not the money we know. It is identified as cryptocurrencies and used as medium of exchange or payment in all economic transactions that occurred in metaverse. Islamic law scholars and academicians has studied this digital currency and has found numerous issues like its volatility or its speculation character. Thus, employing any kind of cryptocurrencies will disturb the shariah-compliant in mortgage. Beside the crypto issues, other digital asset we called as NFTs also has been penetrated by ownership violation. By these two main issues of shariah compliant in meta-mortgage, the image of technological adaptation in mortgage contract is still far away. This prediction is also depending on how far the policy makers, legal drafters, and government to regulate competent law to answer the application of meta space on mortgage activity.

The conclusion section contains a summary of the research findings, which correlate with the research objectives written in the introduction. Then state the main points of the discussion. A conclusion generally concludes with a statement about how the research work contributes to the field of study as a whole (shows how progress from the latest knowledge). A common mistake in this section is to repeat the results of an experiment, abstract, or be presented with a very list. The concluding section must provide clear scientific truths. In addition, the conclusions can also provide suggestions for future experiments.

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