

Gold-Backed Crypto Assets in Indonesia: The Conceptual Compatibility of GOIDR with the MUI Fatwas on Cryptocurrency and Gold Transactions

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ABSTRACT

Introduction: Crypto asset growth in Indonesia under Financial Services Authority (OJK) supervision requires clarity on Sharia compatibility for millions of users, while gold-backed crypto assets emerge as an alternative to conventional cryptocurrency. Few studies integrate cryptocurrency fatwas with gold transaction fatwas, particularly on gold ownership. This study analyzes the conceptual compatibility of GOIDR as a gold-backed crypto asset under the 2021 MUI Ijtima' Ulama Decision and DSN-MUI Fatwas No. 77/2010 and No. 166/2026.

Methods: This qualitative juridical-normative study analyzes the GOIDR whitepaper, fatwas, and muamalah fiqh literature through documentary study and descriptive-qualitative deductive analysis.

Results: Results show that GOIDR is better positioned as a commodity (sil'ah) than a currency (naqd). Gold backing, one token per gram, and minting, burning, and redemption mechanisms support underlying asset and sil'ah criteria, while fractional ownership resembles musya'. However, reserve verification, holders' rights to the gold, qabd, contract structure, and redemption (one-gram minimum, fees) remain unverified.

Conclusion and suggestion: GOIDR's conceptual compatibility depends not only on gold as the underlying asset but also on ownership certainty, contract structure, qabd, and redemption. Theoretically, this study contributes a normative framework integrating crypto and gold fatwas; practically, it maps compatible and refinement-needed GOIDR aspects. Reserve audits, contract reviews, and redemption observations are recommended.

Keywords: GOIDR, Gold-Backed Crypto Assets, Digital Gold, MUI Fatwa, Islamic Law

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INTRODUCTION

The emergence of Bitcoin in 2008 marked a significant milestone in the development of digital financial systems. As outlined in the whitepaper introduced by Satoshi Nakamoto, Bitcoin was designed as a peer-to-peer electronic payment system that enables transactions to be conducted without the involvement of banks or centralized financial institutions. Its emergence occurred against the backdrop of the 2008 global financial crisis, which eroded public trust in conventional financial institutions (Hossaion et al., 2023). This development was subsequently followed by the emergence of thousands of crypto assets with diverse characteristics and functions, such as utility tokens, stablecoins, and digital assets backed by specific assets (Kochergin, 2022). Crypto assets also offer a number of features, including peer-to-peer transactions with relatively low fees, transparency through blockchain technology, fast cross-border transactions, and automation via smart contracts (Jiao, 2024). In Indonesia, the growth of the crypto asset sector has been quite rapid. Following the enactment of Law No. 4 of 2023 on the Development and Strengthening of the Financial Sector (P2SK Law), the number of crypto asset users reached 19.75 million in May 2024. This regulation has also brought about institutional changes, particularly through the transfer of oversight of crypto assets from the Commodity Futures Trading Supervisory Agency (Bappebti) to the Financial Services Authority (OJK), as well as a change in the classification of crypto from a commodity to a digital financial asset (Anam et al., 2024). These changes indicate that the digital asset ecosystem in Indonesia is becoming increasingly structured, but at the same time, they raise questions regarding its compatibility with the principles of Islamic law, particularly in the context of Indonesia's Muslim society.

From a Sharia perspective, conventional cryptocurrency remains a subject of debate because it is considered to potentially involve *gharar*, *maysir*, and *dharar*; thus, its use as a medium of exchange is deemed not to comply with Sharia principles (Jalil & Abdillah, 2023). These issues relate to high price volatility, the risk of hacking, the potential for misuse in illegal activities, and regulatory uncertainty (Arzam et al., 2023). Various empirical studies confirm these concerns. Kerr et al. (2023) document a decline in the value of crypto assets that was up to three times worse than that of stock indices during periods of crisis, while Trozze et al. (2022) identify 47 types of fraud involving cryptocurrency, ranging from Ponzi schemes to pump-and-dump schemes. Veličković et al. (2023) add that the anonymity and volatility of crypto assets together create an ecosystem that is vulnerable to money laundering and terrorist financing. These findings indicate that assessments of crypto assets must take into account not only their economic characteristics and benefits, but also the potential risks arising from their use and transaction mechanisms.

These developments have spurred the search for forms of digital assets that can integrate blockchain technology with Sharia principles. One emerging alternative is gold-backed cryptocurrency—a crypto asset backed by gold as its underlying asset. Balarabe et al. (2025) propose real-asset-backed stablecoins as one approach to addressing the structural weaknesses of conventional cryptocurrencies. Mokodompis et al. (2024) and Sami (2025) emphasize the importance of a clearly defined underlying asset in mitigating the issues of *gharar*, *dharar*, and *maysir*. Abdeldayem et al. (2021) confirm this through an analysis of GOLDX and OneGram; their study shows that the existence of verifiable gold reserves is one of the key factors in assessing Sharia compatibility. Rahardjo et al. (2025) also identify the potential of Sharia-compliant gold-backed crypto assets, such as HelloGold (HGT) and X8X Token, as diversification tools and safe-haven assets in Sharia-compliant investing.

In the Indonesian context, the normative framework regarding cryptocurrency is set forth in the Decision of the 7th Ijtima' Ulama of the Fatwa Commission of the Indonesian Ulema Council (MUI) in 2021. This decision states that cryptocurrency is not permitted as currency (*naqd*), but may be classified as a commodity (*sil'ah*) provided it meets Sharia requirements, including having a clear underlying asset and being free from the elements of *gharar*, *dharar*, and *qimar* (Majelis Ulama Indonesia, 2021). Although fatwas are not part of the hierarchy of legislation as defined by Law No. 12 of 2011, they serve a normative-sociological function as religious guidelines for Muslims (Pelu & Tarantang, 2020). Rohmah and Awwalin (2025) emphasize that MUI fatwas play a strategic role in providing guidance for the economic activities of the Muslim community amid the development of digital financial technology.

However, research on gold-backed cryptocurrencies still reveals gaps. Previous studies, including Sholeh et al. (2022) on OneGram and Abdeldayem et al. (2021) on GOLDX and OneGram, generally focus on the status of cryptocurrencies as *mal*, the existence of underlying assets, and the elements of *gharar* and *maysir*. Quantitative studies such as those by Adzimatinur et al. (2021) and Rinaima and Samsuri (2025) place greater emphasis on price volatility and stability, without delving deeply into the legal aspects of gold ownership. Consequently, to date, studies that integrate cryptocurrency provisions with gold transaction provisions within a single Sharia analytical framework for crypto assets remain limited. This gap forms the basis for research on GOIDR (Gold Indonesia Republic), a gold-backed crypto asset developed in Indonesia by PT Indonesia Blockchain Persada (Blocktogo). According to its whitepaper, GOIDR employs a mechanism for tokenizing physical gold that can be redeemed through an official custodian (PT Indonesia Blockchain Persada, 2026). This characteristic makes GOIDR a relevant subject for analysis through the integration of fatwas on cryptocurrency and fatwas on gold transactions. Based on the literature review conducted, studies on GOIDR within the framework of the fatwas examined are still limited.

This study offers novelty in two aspects. First, in terms of the subject matter, this study examines GOIDR as a physical-gold-backed crypto token in Indonesia. Second, in terms of the analytical framework, this study does not rely solely on cryptocurrency provisions but integrates them with Fatwas No. 77/DSN-MUI/V/2010 and No. 166/DSN-MUI/II/2026 of the National Sharia Board of the Indonesian Ulema Council (DSN-MUI), which govern gold transactions. This study aims to analyze the Sharia compatibility of GOIDR by integrating the 2021 Decision of the 7th Ijtima' Ulama of the MUI Fatwa Commission on the Legal Status of Cryptocurrency with the DSN-MUI fatwa regarding gold transactions. The analysis was conducted in two stages. The first stage focused on the status of GOIDR as a crypto asset, referring to the 2021 Decision of the 7th Ijtima' Ulama of the MUI Fatwa Commission. The second stage focuses on the relationship between the GOIDR token and the underlying gold, with reference to DSN-MUI Fatwas No. 77/DSN-MUI/V/2010 and No. 166/DSN-MUI/II/2026. Both stages of review were analyzed based on relevant concepts of *muamalah fiqh* to assess the compatibility of GOIDR's mechanisms and characteristics with Sharia principles and provisions.

The main argument of this study is that the Sharia compatibility of GOIDR is determined by the fulfillment of the second-stage parameters for gold transactions; thus, its status as a legitimate crypto asset does not in and of itself guarantee Sharia compatibility. In other words, the existence of gold as the underlying asset is a necessary but not sufficient condition; thus, Sharia compatibility can only be confirmed if ownership rights, handover, clarity of the contract, and a guarantee of physical redemption of the gold are also met. This study is expected to make a theoretical contribution through the development of a normative

analytical framework that integrates provisions regarding cryptocurrency and gold transactions. Practically, this study identifies aspects of GOIDR's characteristics that are conceptually aligned with Sharia parameters, aspects that still require clarification based on available documents, and operational aspects that require further verification. Thus, this study is not intended to definitively establish GOIDR's Sharia compliance status but rather to provide an analytical foundation for a more comprehensive assessment.

LITERATURE REVIEW

Crypto Assets and the Tokenization of Real Assets from a Sharia Perspective

The status of crypto assets under Islamic law is debated due to price volatility, uncertainty of value, security risks, and speculation, which raise issues of gharar, maysir, and dharar (Fauzi & Mursal, 2023; Jalil & Abdillah, 2023). An analysis by Asif and Sultan (2025) of 32 fatwas from 12 jurisdictions shows that differing viewpoints center on the status of mal or thamaniyyah, gharar, speculation, and mafsadah, with conditional permissibility if regulations and adequate risk controls are in place. In Indonesia, the Decision of the 7th Ijtima' Ulama of the MUI Fatwa Commission in 2021 classifies crypto as a haram currency (naqd), whereas as a commodity or digital asset, it may be traded if it meets the criteria of sil'ah, has a clear underlying asset, is beneficial, and is free from gharar, dharar, and qimar (Majelis Ulama Indonesia, 2021).

The tokenization of real assets involves representing rights to an asset in the form of a token on a blockchain (Gottschalk, 2022), but this does not automatically make it Sharia-compliant. Its status depends on the underlying asset, the rights it represents, the contract, ownership, and the mechanism of control. The underlying asset itself must be beneficial, verifiable, not in conflict with Sharia, and free from the rights of third parties (Faizin, 2023). These MUI parameters are derived from concepts of muamalah fiqh that encompass the status of mal (property), gharar, maysir or qimar, and dharar. First, the concept of mal according to the Hanafi school refers to something that is desirable and can be stored, whereas the majority of scholars (jumhur) expand its scope to include benefits that possess economic value (az-Zuhaili, 2011). To be a valid object of a transaction, property must meet the criteria of mal mutaqawwam—that is, it must have value, be capable of ownership, and be permissible to use (Redzuan & Razaly, 2012). In the digital context, a non-physical form does not automatically negate the status of property, as reflected in the concept of al-mal al-hukmi (Tuasikal et al., 2025b).

Second, the concept of gharar refers to the risk or uncertainty related to the consequences of a transaction, the certainty of acquisition, and the ability to deliver the object (al-Nawawi, 1972). This concept encompasses the clarity of the existence, nature, quantity, and deliverability of the transaction object. Gharar in crypto assets is often associated with uncertainty regarding the object, the absence of an underlying asset, high volatility, and the dominance of speculative activity. However, gharar must be distinguished from price volatility as a market risk (al-ghurm), which is tolerable as long as it occurs transparently and does not involve prohibited speculation (Tuasikal et al., 2025a). Meanwhile, qimar or maysir places greater emphasis on the element of gambling—that is, one party's profit derived from another party's loss without being supported by underlying assets or economic activities (Ibn Qudamah, 1997; Muhammad et al., 2025). Third, the concept of dharar relates to the potential for loss or harm arising from a transaction or its accompanying mechanisms. Based on the principle of adh-dharar yuzal (harm must be eliminated), the element of dharar must take into account not only aspects related to assets

and transactions, but also the existence of oversight mechanisms, information transparency, regulatory compliance, user protection, and efforts to prevent system abuse in order to safeguard the public interest (Roby et al., 2025).

Gold Transactions from a Sharia Perspective

Gold transactions are subject to specific provisions in muamalah fiqh because gold is classified as a ribawi commodity. The hadith of 'Ubadah ibn al-Samit (narrated by Muslim, no. 1587) stipulates equivalence and immediate exchange (yadan bi yadin) in the exchange of gold for gold. Scholars hold differing views on the legal rationale ('illat) for the ribawi status of gold. The Hanafis and Hanbalis attribute it to gold's weighable nature; the Malikis and Shafi'is to its function as a medium of exchange; while Ibn Taimiyyah and Ibn al-Qayyim employ the concept of mutlaq al-thamaniyyah (Habibillah & Hamdi, 2023). These differences in determining the 'illat have given rise to two perspectives regarding non-cash gold transactions. The first perspective upholds the obligation of taqabud (immediate handover), even though gold no longer functions as money—a stance consistent with the approach adopted by AAOIFI (Herawan et al., 2023). The second perspective takes into account the shift in gold's function from tsaman (medium of exchange) to sil'ah (commodity), which serves as one of the foundations of DSN-MUI Fatwa No. 77/DSN-MUI/V/2010 regarding the permissibility of non-cash gold transactions under specific conditions (Majelis Ulama Indonesia, 2010). Furthermore, DSN-MUI Fatwa No. 166/DSN-MUI/II/2026 expands the discussion to include bullion business activities such as custody, trading, deposits, and gold financing. In this context, the clarity of the contract, the existence and weight of the gold, ownership, and delivery are important aspects that must be considered (Majelis Ulama Indonesia, 2026).

In the case of digital gold, particularly gold-backed crypto assets, the analysis of ownership focuses on the rights attached to the tokens and the legal relationship between token holders and the underlying gold. The concept of al-milk al-tam describes full ownership, which grants the owner the right to control, utilize, preserve, and transfer the object of their ownership (az-Zuhaili, 2011). If gold is stored collectively without physical separation for each owner, the concept of musya' is relevant to explain ownership of a portion that has not been physically divided, with proportional shares (al-Nawawi, n.d.). However, collective storage does not automatically prove that token holders have ownership rights over the gold. To assess this relationship, it is also necessary to examine the concept of qabd, which is distinguished into qabd haqiqi (possession through physical delivery) and qabd hukmi (possession recognized by law) (Saiman, 2023). Thus, electronic evidence representing ownership or possession must be evaluated based on the rights it actually substantiates, not merely on the existence of a digital record (Salam & Baidhowi, 2026). In this context, ownership pertains to the validity of the token holder's right to the gold, while qabd pertains to the actual exercise of control over the gold in accordance with Sharia provisions.

The assessment of ownership and qabd must further take into account the contract underpinning the legal relationship between the parties. The bai' contract pertains to the transfer of ownership, wakalah to the granting of power of attorney, wadi'ah to deposit, and ijarah to the provision of services, including storage services (az-Zuhaili, 2011; Hanum & Ghazali, 2026). Therefore, determining the type of contract cannot be based solely on the terminology used by the issuer but must take into account the substance of the legal relationship, as well as the rights and obligations of each party. The relationship between the contract, ownership, and qabd can be analyzed by examining the mechanism for redeeming

tokens for physical gold. The right of redemption is a key indicator because it relates to the ability to deliver the object, the possibility of achieving qabd haqiqi, and the proof of the token holder's right to the underlying gold (Mursida et al., 2026; Rinaima & Samsuri, 2025). Nevertheless, the existence of a redemption mechanism alone is not sufficient to prove valid ownership; therefore, the provisions, procedures, and implementation must still be analyzed based on the applicable contract.

Synthesis of the Literature and Research Gaps

Previous studies have identified two lines of discussion that have not yet been fully integrated. First, research on gold-backed crypto assets indicates that the use of gold as backing has the potential to reduce the elements of gharar, dharar, and maysir, while simultaneously strengthening the status of tokens as mal and as a representation of asset ownership (Abdeldayem et al., 2021; Mokodompis et al., 2024; Sami, 2025; Widjiantoro et al., 2026). Gold backing is also associated with lower volatility compared to crypto assets without specific asset backing (Rinaima & Samsuri, 2025). Nevertheless, the presence of gold as a backing asset does not automatically eliminate price volatility and transaction risks, so adequate oversight remains necessary (Adzimatinur et al., 2021). Furthermore, contractual aspects, the fulfillment of taqabud, and mechanisms for redeeming physical gold still require further study (Rinaima & Samsuri, 2025). The study by Sholeh et al. (2022) on OneGram, for example, focuses on gold reserves and Sharia oversight but does not specifically elaborate on the legal relationship between the token and the ownership rights to the gold it represents. Second, research on ownership, qabd hukmi, and the withdrawal of physical gold has been conducted in the contexts of gold savings, bullion banks, and Sharia banking (Diana & Isroqunnajah, 2025; Masrur et al., 2025; Mursida et al., 2026). However, these aspects have not yet been specifically integrated into the analysis of gold-backed crypto assets.

Based on the mapping outlined above, there remains scope for research in integrating Sharia parameters for crypto assets and gold transactions into a single analytical framework for gold-backed tokens. This study addresses that gap through two interrelated stages of analysis. First, GOIDR is analyzed as a crypto asset based on the Decision of the 7th Ijtima' Ulama of the MUI Fatwa Commission in 2021, using the concepts of mal, sil'ah, gharar, maysir or qimar, and dharar to examine the status of the token and the risks associated with its characteristics and mechanisms. Second, GOIDR is analyzed as a token representing gold by referring to the DSN-MUI fatwa regarding gold transactions. At this stage, the concepts of al-milk, qabd, and the contract ('aqd) are used to examine the legal relationship between token holders and the underlying gold, including the mechanisms for the storage and redemption of physical gold. Thus, the crypto asset theory is used to assess the status and characteristics of the token, while the theory of ownership and handover is used to assess the rights to the gold and the mechanisms for its control.

METHOD

This study employs a qualitative research method, which focuses on understanding the meaning of a phenomenon rather than on the numerical measurement of data. Sugiyono (2019) explains that qualitative research is used to study subjects in their natural setting, with the researcher serving as the key instrument, and emphasizes the interpretation of data. In line with this, Creswell (2014) views qualitative research as an approach to exploring and

understanding meanings related to a social or human problem. Based on these definitions, this study specifically employs a juridical-normative approach, which relies on document review and conceptual analysis of written sources. This approach is considered appropriate for the characteristics of this study because the objects under examination are textual and normative in nature—namely, the GOIDR whitepaper and the fatwa texts issued by the MUI and DSN-MUI—so the research objective is not to statistically test hypotheses but rather to assess the conceptual alignment between one source and another. The line of reasoning employed is deductive: first, the characteristics and mechanisms of GOIDR as outlined in the whitepaper are described; then, these are linked to and assessed for consistency with the parameters established in the MUI and DSN-MUI fatwas, thereby providing an overview of the potential structural compatibility of GOIDR with applicable Sharia provisions.

The data sources in this study consist of primary and secondary data. Primary data were obtained from the GOIDR whitepaper published by PT Indonesia Blockchain Persada (Blocktogo), which contains explanations regarding the characteristics, mechanisms, and ownership structure of GOIDR tokens. Secondary data were sourced from the Decision of the 7th Ijtima' Ulama of the MUI Fatwa Commission in 2021 regarding the Legal Status of Cryptocurrency, DSN-MUI Fatwa No. 77/DSN-MUI/V/2010 regarding the Non-Cash Sale and Purchase of Gold, DSN-MUI Fatwa No. 166/DSN-MUI/II/2026 on Bullion Business Activities Based on Sharia Principles, as well as relevant literature on muamalah fiqh and previous research. Data collection was conducted through a documentary study, which involved systematically searching for, collecting, and reviewing these written documents, while data analysis was performed using descriptive-qualitative methods following the deductive approach described earlier.

RESULT AND ANALYSIS

Characteristics and Mechanism of GOIDR

GOIDR (Gold Indonesia Republic) is a gold-backed crypto asset developed by PT Indonesia Blockchain Persada (Blocktogo). According to the issuer's documentation, each token represents one gram of physical gold held in custody by PT Pegadaian Galeri Dua Empat (Galeri24). GOIDR is issued on the Polygon network using the ERC-20 token standard. Minting occurs once the physical gold is available as the underlying asset, while tokens redeemed through the redemption mechanism are destroyed via a burning process. Transaction information and smart contracts can be traced via the blockchain network, while information regarding the physical gold is referenced in reports provided periodically by the issuer (Gold Indonesia Republic, 2026; PT Indonesia Blockchain Persada, 2026). GOIDR tokens can be held in denominations as small as 0.0001 gram. Digital ownership is recorded via tokens stored in the user's digital wallet, while the physical gold remains in custody. Token transfers are conducted through digital transactions authorized by the wallet owner. To obtain physical gold, token holders may request redemption in accordance with the issuer's procedures, including provisions regarding minimum thresholds, fees, and pickup locations (Gold Indonesia Republic, 2026; PT Indonesia Blockchain Persada, 2026).

GOIDR is traded within the crypto asset ecosystem, so its price may fluctuate in line with market dynamics. Token trading takes place digitally and does not require the physical transfer of gold with every transaction. Regarding regulations and governance, the issuer's documentation states that GOIDR is listed among the crypto assets traded on physical crypto asset markets in accordance with Bappebti Regulation No. 1 of 2025. The issuer also states that it implements electronic identity verification (electronic know-your-customer or e-

KYC) integrated with data from the Directorate General of Population and Civil Registration to support user identification and the prevention of money laundering (PT Indonesia Blockchain Persada, 2026).

GOIDR as a Crypto Asset Under the MUI Fatwa Framework

The discussion of GOIDR's status as a crypto asset from a Sharia perspective is based on the Decision of the 7th Ijtima' Ulama of the MUI Fatwa Commission in 2021. The analysis covers GOIDR's status as a commodity (*sil'ah*), the existence of an underlying asset, and the potential presence of the elements of *gharar*, *qimar*, and *dharar* in its transaction mechanisms. These five aspects are outlined sequentially as the basis for assessing the compatibility of GOIDR's characteristics and mechanisms with the criteria for tradable crypto assets as defined in the decision. The Decision of the 7th Ijtima' Ulama of the MUI Fatwa Commission in 2021 states that cryptocurrency is haram as a currency; however, as a commodity or digital asset, it may be traded if it meets the criteria of *sil'ah*, has a clear underlying asset, and provides a benefit (Majelis Ulama Indonesia, 2021). According to the issuer's documentation, GOIDR is designed as a token that represents ownership of physical gold, is tradable, and can be redeemed for gold (PT Indonesia Blockchain Persada, 2026). These characteristics indicate that GOIDR is more appropriately analyzed as a digital commodity rather than as a means of payment.

This view is consistent with Sholeh et al. (2022), who examined OneGram as a gold-backed cryptocurrency. The study emphasizes that the presence of physical gold as the underlying asset supports the token's status as a commodity (*sil'ah*), rather than currency (*naqd*). Meanwhile, Mokodompis et al. (2024) explain that a crypto asset can be categorized as *sil'ah* if it possesses clear benefit, value, and measure, has verifiable ownership, and can be handed over. In *muamalah fiqh*, a commodity (*sil'ah*) must first meet the basic qualifications of *mal mutaqawwam*—that is, property that has value, can be stored, and is recognized as having utility in accordance with Sharia. A digital form does not automatically negate an asset's status as property as long as it possesses value, utility, and clear ownership (Tuasikal et al., 2025b). In this context, although GOIDR is designed in digital form, its existence is intended to represent one gram of physical gold per token and is equipped with a redemption mechanism. This provides a strong foundation for examining GOIDR as a *sil'ah*, which aligns with the analytical framework regarding the recognition of digital assets based on *mal mutaqawwam*. Purnama et al. (2026) explain that *mal* is an ontological category of wealth that must possess utility, the ability to be stored digitally, and '*urf* (societal economic recognition). It is this ontological recognition that facilitates the status of digital assets as *sil'ah*—as objects of a sale and purchase contract (*'aqd al-bai'*)—where the availability of underlying gold and the physical redemption mechanism in GOIDR can meet the criteria of object clarity and storability.

GOIDR's status as a commodity is also related to the regulations governing gold transactions. Gold is classified as a *ribawi* commodity subject to specific regulations regarding immediate delivery (*yadan bi yadin*), although there are differing views among Islamic scholars regarding non-cash gold transactions (Habibillah & Hamdi, 2023). Herawan et al. (2023) explain that DSN-MUI Fatwa No. 77/DSN-MUI/V/2010 permits non-cash gold transactions under certain conditions, provided that the gold does not function as an official medium of exchange and its price does not increase during the term of the agreement. This view aligns with the opinions of Ibn Taimiyyah and Ibn al-Qayyim, who distinguish between gold that functions as money and gold that is traded as a commodity. Hanum and Ghazali (2026) also explain that DSN-MUI Fatwa No. 77/2010 serves as a crucial basis for the

permissibility of non-cash gold transactions when gold is treated as a commodity rather than an official medium of exchange. Fatwas regarding the shift in gold's function to that of an investment asset and store of value can be viewed as a response to the changing role of gold in the modern monetary system (Nursobah et al., 2025). Nevertheless, some scholars and fiqh institutions continue to emphasize the obligation of *taqabud* (Herawan et al., 2023).

In reviewing the criteria for underlying assets, the underlying asset must have utility, its existence must be verifiable, it must not be a prohibited item, and it must not involve any ambiguity regarding the rights of third parties (Faizin, 2023). In GOIDR, each token is designed to represent physical gold stored by a custodian, and the minting and burning mechanisms link the issuance and redemption of tokens to the gold that serves as the underlying asset (PT Indonesia Blockchain Persada, 2026). This direct link between the token and physical gold distinguishes GOIDR from digital assets that are not tied to a specific asset, as the token's value no longer rests on an abstract claim but on a tangible object whose utility and existence can be identified. Nevertheless, the existence of gold as the underlying asset must be distinguished from the certainty that all tokens in circulation are actually backed by gold reserves in corresponding amounts. Token data can be traced through the blockchain network, while information regarding gold reserves is sourced from the issuer (PT Indonesia Blockchain Persada, 2026). Reports on physical gold reserves are also not accessible or verifiable by users in real time; rather, they are published periodically by the issuer (Gold Indonesia Republic, 2026). Thus, the aspects that still require verification are the existence and quantity of gold reserves as well as the transparency of their reporting—not merely the traceability of digital tokens.

This argument aligns with Ashfaq et al. (2026), who demonstrate that gold-backed tokens generally exhibit a high degree of tracking with the price of physical gold. These findings provide context for the relationship between the token's value and the price of the gold it represents, but they cannot be directly used to conclude that GOIDR's price movements have accurately tracked the price of gold, as GOIDR's tracking accuracy cannot yet be confirmed without independent market data. Masrur et al. (2025) also note that integrating digital record-keeping with physical gold storage can enhance transparency and the validity of ownership. On the other hand, Abdeldayem et al. (2021) and Sholeh et al. (2022) point out that gold backing does not automatically guarantee Sharia compatibility, so the review cannot stop at the mere existence of the underlying asset. In fiqh literature, *gharar* encompasses uncertainty regarding the existence of an object (Al-Kasani, 2003), the ability to deliver the object (Al-Jauziyyah, 1996), as well as the quantity and characteristics of the object at the time of the contract (Ibn Hazm, n.d.). When examined through these three dimensions, the issue of *gharar* in GOIDR differs from that of crypto assets without an underlying asset—such as Bitcoin—which, according to Ridha (2025), stems from the absence of a physical form and an underlying asset. In GOIDR, tokens are designed to represent physical gold, accompanied by minting and burning mechanisms as well as traceable smart contract information (PT Indonesia Blockchain Persada, 2026), thereby conceptually resolving the uncertainty regarding the existence of the object. However, the clarity of the object does not in itself guarantee that transactions are free from *gharar* if the relevant mechanisms and information are not transparent, as emphasized by Balarabe et al. (2025). The traceability of transactions and smart contracts also does not independently prove the existence and correspondence of the number of tokens in circulation with the available gold, nor the certainty of the delivery of the underlying asset, which cannot be confirmed solely through the issuer's documents. Therefore, certainty regarding the actual

amount of gold available and the correspondence between the tokens in circulation and the gold reserves remains a key issue.

An assessment of gharar must also distinguish uncertainty regarding the object itself from the risk of price fluctuations. Within the framework of Tuasikal et al. (2025a), market risk (al-ghurm) must be distinguished from gharar fahish. In line with this, the findings of Muhammad et al. (2025) indicate that price fluctuations in digital assets do not automatically constitute gharar or maysir, but can be part of the price discovery process for commodities that possess scarcity and real utility. Thus, fluctuations in the price of GOIDR do not necessarily indicate the presence of gharar, since price changes are a natural risk inherent in trading. This distinction is reinforced by the literature on the volatility of gold-backed crypto assets. Adzimatinur et al. (2021) show that gold-backed crypto assets still face volatility and market risks. Meanwhile, Wasiuzzaman et al. (2023) note an increase in the volatility of X8X, OneGram, and HelloGold during bearish periods, although it remains relatively lower than that of conventional cryptocurrencies. Hoque et al. (2024) also show that the hedge and safe haven characteristics of PAX Gold and Tether Gold differ depending on the type of financial stress faced. These findings indicate that gold-backed crypto assets still carry market risk even though they are backed by physical assets.

Qimar or maysir refers to gambling (al-Haitami, 1987) and transactions that result in a person gaining or losing wealth without an exchange of tangible benefits (Ibn Taimiyyah, 2004). Muhammad et al. (2025) explain that maysir can occur when digital assets are traded solely to pursue short-term speculative gains without considering the benefits and fundamentals of the assets. Conversely, holding assets for long-term investment or assets that have clear benefits and ownership rights does not automatically constitute maysir. In line with this, Asif and Sultan (2025) assert that purely speculative trading and bet-based transactions on price movements constitute maysir when profits are derived from another party's losses, rather than from a productive economic exchange. Based on these parameters, the characteristics of the instrument must be distinguished from its trading practices. At the instrument level, GOIDR has a different structure from purely speculative transactions because the tokens are designed to represent physical gold and provide a redemption mechanism. This link to real assets is a consideration in assessing the characteristics of GOIDR, but it does not in and of itself eliminate the possibility of maysir. At the behavioral level, the use of GOIDR to pursue profits from short-term price changes still needs to be evaluated based on the mechanisms and objectives of the transactions.

Gunarsa (2019) points out that the issue of speculation becomes prominent when transactions are oriented solely toward price changes without the delivery of real assets, as can occur in gold futures contracts. On the other hand, A'yun (2025) finds that the use of real-time market prices on digital gold platforms has the potential to encourage speculative behavior. These findings suggest that the presence of gold as an underlying asset must be distinguished from the trading mechanisms and patterns employed. Therefore, fluctuations in the GOIDR price are insufficient to conclude the existence of maysir; the assessment must also consider the form of the transaction, the use of financial instruments, and the users' trading orientation. The dharar parameter relates to the harm that a transaction may cause to the parties involved or to society. In the context of crypto assets, dharar is also linked to gharar and qimar, as the uncertainty of transactions and speculative practices can increase the risk of loss. However, these two aspects have already been discussed in the previous section; therefore, this discussion focuses on user protection and governance. The principle of adh-dharar yuzal emphasizes the importance of eliminating harm. Arzam et al. (2023)

identify weak consumer protection, low information transparency, and the potential for system abuse for illegal activities as issues within the crypto asset ecosystem.

When evaluated against these indicators, the issuer of GOIDR states that it implements e-KYC, provides information regarding assets and smart contracts, and operates within the framework of regulatory registration and oversight (PT Indonesia Blockchain Persada, 2026). Immutable and traceable records are also consistent with the findings of Latipah and Fasa (2024) regarding the role of distributed network transparency in supporting data security and reducing operational risks. However, the existence of governance mechanisms alone is insufficient to ensure that all potential dharar has been avoided. Roby et al. (2025) emphasize the importance of continuous oversight in assessing harm in economic activities. In the context of GOIDR, the effectiveness of risk mitigation depends on the fulfillment of the issuer's and custodian's obligations, the transparency of gold reserve information, system security, and the protection of user rights. Thus, the procedures stated by the issuer can serve as the basis for an initial assessment, but the effectiveness of these protections still needs to be demonstrated through implementation in the field.

GOIDR as Digital Gold Under the DSN-MUI Fatwa Framework

In addition to referring to the Decision of the 7th Ijtima' Ulama of the MUI Fatwa Commission in 2021, the analysis of GOIDR as a token representing physical gold is also related to DSN-MUI Fatwa No. 77/DSN-MUI/V/2010 on the Non-Cash Sale and Purchase of Gold and DSN-MUI Fatwa No. 166/DSN-MUI/II/2026 on Bullion Business Activities Based on Sharia Principles. Fatwa No. 77 was mentioned in the previous discussion because it is relevant to the status of gold as the underlying asset of GOIDR. Therefore, the discussion in this section focuses on DSN-MUI Fatwa No. 166/DSN-MUI/II/2026, specifically regarding gold ownership, handover (qabd), and the contract structure underpinning the relationship between token holders, the issuer, and the custodian. These aspects serve as the foundation for examining the clarity of token holders' rights and the compatibility of the GOIDR mechanism with the parameters set forth in the fatwa. *Musya'* refers to joint ownership of an asset that has not yet been physically divided, with each owner's share determined proportionally (al-Nawawi, n.d.), whereas *al-milk al-tam* is the right to control, utilize, maintain, and transfer ownership of an object (az-Zuhaili, 2011). Ownership does not always require direct physical possession, but it still necessitates a clear, valid, and enforceable right over the object in question. These two concepts complement each other: *musya'* addresses the form of ownership over jointly held gold, while *al-milk al-tam* addresses the nature of the rights inherent in that ownership.

In the case of GOIDR, users can own shares in units smaller than one gram, while the physical gold is held in custody. This model bears conceptual similarities to *musya'*. Immutable record-keeping and token transfers authorized by the wallet owner support the right of transferability because they help maintain the integrity of digital records, as discussed by Adejumo and Ogburie (2025) and Gafarov (2024). However, the security of record-keeping differs from the legal certainty of rights over gold. The recording of tokens in a digital wallet indicates control over the tokens, whereas digital evidence can only serve as proof of ownership of gold if the record represents a valid and enforceable right to the physical asset. The application of the *musya'* concept also depends on the clarity of the share to which each token holder is entitled and the evidence linking that right to the physical gold. In terms of usage rights, GOIDR requires the redemption of at least one gram of physical gold—equivalent to one token—and charges a redemption fee (Gold Indonesia Republic, 2026). Holders with fractions of less than one token therefore cannot redeem

physical gold, and those who can redeem are subject to a fee. With this structure, the right to utilize gold in physical form does not apply equally to all token holders. Fractions of less than one gram can still be transferred as tokens, so the right to transfer remains in effect; however, other forms of utilization of these fractions depend on the possibility of selling them on the market.

This interpretation aligns with the literature on digital gold. Salam and Baidhowi (2026), who examined the ownership of digital gold based on DSN-MUI Fatwa No. 166/DSN-MUI/II/2026, affirm that ownership of digital gold does not have to take the form of individually separate physical bars, but is valid as proportional ownership of a shared gold reserve (*al-mal al-musya'*). This validity is contingent upon three conditions: clarity regarding ownership shares in the user agreement; a guarantee of auditable 1:1 backing by the underlying assets; and the fulfillment of *qabd hukmi*—that is, the digital balance grants a tangible legal right to sell, transfer, or physically redeem the gold. The fractional structure of GOIDR meets the requirements of *musya'*, whereas the three conditions cannot yet be confirmed based on the available documents. Regarding the redemption threshold, Widjiantoro et al. (2026) evaluate global gold-backed stablecoins such as XAUT and PAXG, which can technically be divided into very small fractions. They criticize the excessively high minimum threshold for physical redemption, as it renders the rights of small holders merely representative, weakens full physical control, and potentially introduces *gharar* in claims to ownership of the asset. The one-gram threshold for GOIDR is on a different scale from the thresholds criticized, but the logic of the critique remains relevant for denominations below one gram and for the burden of redemption costs.

Natsir (2024) adds the *fiqh* perspectives of the four schools of jurisprudence on PT Pegadaian's digital gold savings product. He assesses the one-gram minimum requirement for the buyback feature as a *fasid* condition because it negates the consequences of the sale and purchase contract (*al-nufudh*), prevents the handover of gold before it reaches one gram, and grants a unilateral advantage to the operator. Conversely, he considers the one-gram minimum requirement for physical gold minting to be *sahih*, even though the minting contract remains *fasid* by extension (*tabi'*) due to a defect in the prior sale and purchase contract. The GOIDR minimum threshold applies to physical redemption, making it closer to the physical minting feature—which is deemed valid—than to the buyback feature, which is deemed *fasid*. The issue only arises if token holders have no other means to liquidate the value of their tokens. That avenue involves selling the tokens on the market, for which liquidity cannot be ascertained from the available documents. Thus, the compatibility of GOIDR with the concepts of *musya'* and *al-milk al-tam* depends on the legal relationship underlying the tokens and on the enforceability of the right of use for token holders, not merely on the ability to record and transfer tokens on the blockchain network.

According to Saiman (2023), *qabd hukmi* is a handover that is legally recognized even though the object has not yet been physically received, provided that ownership has been transferred and the owner has the ability to utilize or transfer it. DSN-MUI Fatwa No. 166/2026 recognizes both *qabd haqiqi* and *qabd hukmi*, including handover evidenced by electronic proof of ownership (Majelis Ulama Indonesia, 2026). In the GOIDR mechanism, ownership of tokens via a digital wallet can be considered a form of *qabd hukmi*, while the gold remains with the custodian. However, its status as *qabd hukmi* over the gold depends on the certainty that the token confers valid and enforceable rights to the gold it represents. This interpretation aligns with the findings of Masrur et al. (2025), Lukito et al. (2026), and Nabihah and Amir (2026), which indicate that the custodial system and digital record-keeping on digital gold platforms can meet the characteristics of *qabd hukmi* provided that

ownership and rights to the assets are clearly defined. As for redemption, it can constitute a form of qabd haqiqi when physical gold is actually delivered to the rightful holder. However, the execution of this delivery is influenced by the operational provisions governing redemption, namely the minimum threshold of one gram, fees, and the pickup location. Within the framework of qabd, what is relevant is that the receipt of gold through redemption can only constitute qabd haqiqi for holders who meet these requirements; thus, the certainty of qabd in GOIDR depends not only on token registration but also on the clarity of ownership rights and the feasibility of physical gold delivery.

The contract structure defines the legal relationships between token holders, the issuer, and the custodian; however, the available GOIDR documents do not yet explain in detail the contracts underlying each of these relationships. The information regarding these relationships is not yet detailed enough to clarify the contract structure, the allocation of rights and obligations, and the responsibilities of each party. In reviewing the categories of contracts, the relationship between the token buyer and the issuer can conceptually be compared to bai' al-'adi (mu'tadah), which is a standard sale at an agreed-upon price without the requirement to disclose the cost price and profit margin (az-Zuhaili, 2002). This assessment is based on the fact that token issuance is contingent upon the availability of gold held in custody, rather than being based solely on user orders that are fulfilled later, as is typically the case with the wakalah bi al-ujrah model. Since the whitepaper does not specify the contract for each legal relationship, a definitive determination of the contract cannot be made based on the available documents, and the interpretation of bai' al-'adi here constitutes a conceptual analysis that still requires validation through a contractual review. This position aligns with A'yun (2025), who notes that digital gold platforms in Indonesia can employ various contract structures, including wakalah bi al-ujrah, murabahah, and ijarah, depending on the service model and the relationships among the parties. This variation underscores that the contract structure cannot be determined solely based on the product's characteristics. Thus, the determination of the contract underlying GOIDR must be based on the transaction mechanism, the legal relationship between the issuer, custodian, and token holders, as well as the rights and obligations of each party.

Analysis of GOIDR Compatibility with Fatwa Integration

Based on the eight aspects analyzed, GOIDR's compatibility appears strongest at the level of the object and the instrument's structure. GOIDR is designed as a token representing physical gold, not as a means of payment; therefore, it can be classified as a commodity (sil'ah) according to the Decision of the 7th Ijtima' Ulama of the MUI Fatwa Commission in 2021. The one-to-one link between a token and one gram of gold, the minting and burning mechanisms, and the traceable smart contract information conceptually address the issue of the absence of an underlying asset—a common characteristic of conventional crypto assets. This structure distinguishes GOIDR from purely speculative transactions, and fractional token ownership bears similarities to joint ownership (musya'). Token ownership in a digital wallet can also be examined as qabd hukmi, while redemption serves as the path toward qabd haqiqi. Price fluctuations are more accurately understood as market risk rather than gharar fahish.

However, compatibility at the level of the object does not yet answer whether the token holder's right to gold can be ascertained and enforced. Both fatwa frameworks converge on the same issue: the legal relationship between the token and physical gold. The gold reserves and their correspondence with the tokens in circulation originate from the issuer and cannot yet be independently verified. The rights of token holders to the gold cannot yet

be ascertained from the available documents; the contract structure between holders, the issuer, and the custodian has not been explained in detail; and physical redemption is limited by a minimum threshold of one gram and associated fees, making it inapplicable to holders of fractional amounts. The effectiveness of user protections and the potentially speculative nature of trading patterns can only be assessed through implementation. Therefore, the existence of gold as the underlying asset is a prerequisite, not proof of comprehensive compatibility. Establishing GOIDR compatibility requires an independent audit of gold reserves, clarity regarding the rights and agreements of the parties, and evidence of the implementation of redemption and user protections.

CONCLUSION

This study shows that GOIDR is conceptually more appropriately positioned as a digital commodity (*sil'ah*) rather than a currency (*naqd*), and can therefore be analyzed within the framework of the 2021 Decision of the 7th *Ijtima' Ulama* of the MUI Fatwa Commission and the DSN-MUI fatwa on gold transactions. From the crypto asset perspective, the presence of physical gold held in custody, the stipulation that one token is equivalent to one gram of gold, and the mechanisms of minting, burning, and redemption support the fulfillment of the criteria for an underlying asset and *sil'ah*. The uncertainty regarding the existence of the object—a common issue in crypto assets that lack an underlying asset—has been conceptually addressed. Price fluctuations are more accurately understood as market risk (*al-ghurm*) rather than *gharar fahish*, and the instrument's structure differs from purely speculative transactions. However, a key uncertainty lies in the lack of independent verification of gold reserves, while the effectiveness of user protection and potentially speculative trading patterns still need to be proven in practice. From the perspective of gold transactions, fractional ownership can be associated with *musya'*, and token possession can be analyzed as *qabd hukmi*, followed by *qabd haqiqi* through redemption. Nevertheless, the legal certainty of token holders' rights to the gold, the minimum redemption threshold of one gram along with its associated costs, and the contract structure which has not yet been explained in detail prevent this compatibility from being definitively established.

Theoretically, this study contributes a normative analytical framework that integrates the parameters of fatwas on cryptocurrency with fatwas regarding non-cash gold transactions and bullion business activities. This framework expands the Sharia assessment of gold-backed crypto assets from merely the existence of the underlying asset to the relationship between the token, gold ownership, possession, and the contract. Its empirical contribution is limited because this study does not examine the implementation of GOIDR. Its contribution lies in mapping the Sharia-relevant operational characteristics of GOIDR, namely redemption thresholds and fees, periodic reserve reporting, the implementation of e-KYC, and inclusion on regulatory lists. These characteristics can serve as verification criteria for further research, issuers, and Sharia supervisors. This study has several limitations. The analysis is juridical-normative in nature and relies on issuer documents, fatwas, and literature; thus, information regarding GOIDR follows what is stated by the issuer and has not been verified through audits or third-party data. Gold reserves, the legal relationships between token holders, the issuer, and the custodian, as well as the feasibility of redemption, have not been directly examined. Market data, such as the accuracy of price tracking and token liquidity, have also not been analyzed. The interpretation of the contract as *bai' al-'adi* remains conceptual, and the scope of the study is limited to a single

instrument. Further research is recommended to empirically examine these aspects, including through independent audits of gold reserves and their alignment with the number of tokens in circulation, a review of user agreements and contracts between the parties, and an observation of the redemption process including for fractional token holders and regarding fees and redemption locations. Market data analysis of price tracking accuracy, liquidity, and user trading patterns can deepen the assessment of the elements of gharar and qimar. Comparative studies with other gold-backed tokens and the involvement of a Sharia supervisory board can also strengthen the framework developed.

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