

Cryptocurrency Volatility, Gharar, and Risk Perception in Islamic Economics: A Qualitative Descriptive Study

Cryptocurrency
Volatility, Gharar,
and Risk Perception

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Submitted:
OCTOBER 2025

Accepted:
DECEMBER 2025

ABSTRACT

The rapid growth of cryptocurrency investors in Indonesia has sparked debates about its legal status within Islamic jurisprudence. A key focus is the extreme price volatility of cryptocurrencies and whether this should be classified as *gharar* (excessive uncertainty) or simply as market risk. This study utilizes a normative-legal and doctrinal approach to differentiate between volatility, an inherent characteristic of modern financial instruments, and *gharar*, a prohibited element in Islamic contracts. The primary data for this research is sourced from classical *fiqh* texts and contemporary fatwas, while secondary data includes regulations and indexed academic studies on financial volatility. The findings indicate that although cryptocurrencies display higher volatility compared to stocks and gold, not all fluctuations can be classified as *gharar fāhish* (excessive uncertainty). Instead, volatility should be viewed as market risk (*al-ghurm*), which is measurable, manageable, and tolerable under Islamic law, provided that transparency and risk-sharing mechanisms are in place. The study concludes that cryptocurrencies can be considered lawful property under Islamic law when they are free from *ribā* (usury), *maysir* (gambling), and excessive *gharar*, thereby providing a solid foundation for issuing fatwas and designing regulations.

Keywords: *al-Māl*, Cryptocurrency, Gharar, Islamic Law, Risk Perception, Volatility.

ABSTRAK

Pertumbuhan pesat investor mata uang kripto di Indonesia telah memicu perdebatan tentang status hukumnya dalam yurisprudensi Islam. Fokus utamanya adalah volatilitas harga mata uang kripto yang ekstrem dan apakah hal ini harus diklasifikasikan sebagai *gharar* (ketidakpastian yang berlebihan) atau sekadar risiko pasar. Studi ini menggunakan pendekatan normatif-hukum dan doktrinal untuk membedakan antara volatilitas, karakteristik inheren instrumen keuangan modern, dan *gharar*, unsur terlarang dalam kontrak Islam. Data primer untuk penelitian ini bersumber dari teks-teks *fiqh* klasik dan fatwa kontemporer, sementara data sekunder mencakup peraturan dan studi akademis terindeks tentang volatilitas keuangan. Temuan menunjukkan bahwa meskipun mata uang kripto menunjukkan volatilitas yang lebih tinggi dibandingkan dengan saham dan

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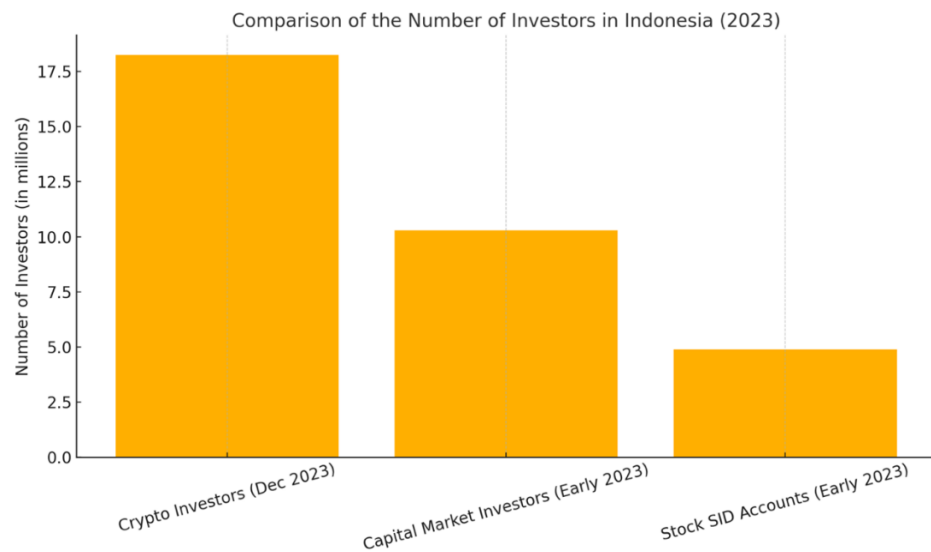
Jurnal Ilmiah Akuntansi
Kesatuan
Vol. 13 No. 6, 2025
pp. 1885-1910
IBI Kesatuan
ISSN 2337 – 7852
E-ISSN 2721 – 3048
DOI: 10.37641/jiakes.v13i6.4327

emas, tidak semua fluktuasi dapat diklasifikasikan sebagai *gharar fāḥish* (ketidakpastian yang berlebihan). Sebaliknya, volatilitas harus dipandang sebagai risiko pasar (*al-ghurm*), yang terukur, terkelola, dan dapat ditoleransi menurut hukum Islam, dengan syarat adanya transparansi dan mekanisme pembagian risiko. Penelitian ini menyimpulkan bahwa mata uang kripto dapat dianggap sebagai properti yang sah menurut hukum Islam ketika bebas dari *ribā* (*riba*), *maysir* (*perjudian*), dan *gharar* yang berlebihan, sehingga memberikan landasan yang kuat untuk mengeluarkan fatwa dan merancang regulasi.

Kata kunci: *al-Māl*, Mata Uang Kripto, Gharar, Hukum Islam, Persepsi Risiko, Volatilitas.

INTRODUCTION

Recently, data from the Commodity Futures Trading Regulatory Agency (*Badan Pengawas Perdagangan Berjangka Komoditi/Bappebti*) reported a significant increase in the number of cryptocurrency investors in Indonesia. As of December 2023, the total number of cryptocurrency investors reached 18.25 million, marking an increase of more than 400,000 investors compared with the previous year (Bappebti, 2023). This rapid growth indicates that cryptocurrency is becoming more widely accepted, especially among younger investors. As shown in Figure 1, this upward trend continues to shape public interest and trading volume. Such growth reinforces the need to re-examine not only the economic aspects of cryptocurrency but also its ethical and legal implications within the Islamic framework.



Source: KSEI (2023) and Bappebti (2024)

Figure 1. Comparison of crypto investors, capital market investors, and stock SID accounts in Indonesia as of 2023.

According to Kosasih and Daniel (2022), the increasing circulation of cryptocurrency raises debates concerning its legal status under Islamic jurisprudence. On one hand, a fatwa issued by the Indonesian Ulema Council declared cryptocurrency as haram when treated as a currency, citing the presence of *gharar* (excessive uncertainty), speculation, and its potential resemblance to gambling-like practices. On the other hand, a number of Islamic scholars categorize cryptocurrency as a lawful digital commodity, often referred to as *al-māl*, due to its ability to store and transfer value. These contrasting perspectives create a dynamic scholarly discussion that continues to evolve as crypto technologies develop.

In Islamic law, *gharar* refers to uncertainty arising from ambiguous elements within a transaction. Cryptocurrency is often considered to contain *gharar* because of its price

volatility, speculative activity, and the absence of intrinsic value, particularly in coins that lack underlying assets. However, opinions among scholars remain diverse. Akbar (2022) state that some scholars argue that cryptocurrency can be categorized as *al-māl* because it offers clear utility and value in modern economic systems. This indicates that scholarly disagreement is not merely doctrinal, but also rooted in how contemporary economic realities reshape the meaning of value and ownership.

The concept of *al-māl* focuses not only on tangible assets but also encompasses digital objects if they provide clear benefits and have recognized value. Classical Islamic scholars such as Ibn Taymiyyah, Ibn al-Qayyim, and Al-Qarā describe *al-māl* as property that holds value, can be owned, and provides benefit. Its basic element is *manfa'ah* (utility), and items containing *manfa'ah* may be considered valid assets under Islamic law. This principle has been widely used as a reference in analyzing the legitimacy of cryptocurrency. In other words, the classification of crypto as *al-māl* depends on whether it exhibits stable benefit and recognized societal value, two aspects still debated by contemporary scholars.

Nevertheless, the discussion surrounding cryptocurrency's status is often complicated by its intangible nature and its dependence on blockchain technology. These characteristics differentiate it from conventional assets traditionally discussed in fiqh literature. While classical definitions of *al-māl* emphasize utility and ownership, cryptocurrency introduces new dimensions such as decentralization, cryptographic security, and digital scarcity. These features challenge scholars to reinterpret long-established legal concepts. According to Wibowo et al. (2021), such reinterpretation is necessary because traditional asset frameworks may not fully accommodate rapidly evolving digital forms of wealth.

However, existing studies present a clear research gap. Many previous works focus on the legality of cryptocurrency solely from the perspective of halal-haram judgment, while fewer studies examine how classical fiqh definitions, especially *al-māl* are operationalized to assess new digital assets in a structured manner (Al-Mansouri, 2025; Tahir et al., 2025). Moreover, much of the literature does not integrate economic reasoning with fiqh principles, leaving a gap between theoretical legal arguments and the practical economic behavior of cryptocurrency users. This gap highlights the need for a more balanced discussion that connects Islamic jurisprudence, asset theory, and the modern digital economy.

Therefore, the purpose of this study is to analyze the legal status of cryptocurrency by examining its characteristics through the lens of *al-māl* in Islamic jurisprudence. This study also aims to clarify how the fiqh framework can be applied to digital assets, addressing both the doctrinal foundations and practical economic implications. By doing so, the research contributes to bridging the gap between classical definitions and contemporary financial innovations.

LITERATURE REVIEW

Concepts of Gharar in Classical and Contemporary Fiqh

The foundational prohibition of *gharar* in Islamic commercial law derives from the textual sources of the Qur'an and the Sunnah, which collectively establish the ethical and legal framework against transactions characterized by deception, uncertainty, or unjust enrichment. Qur'an 4:29 explicitly commands believers not to consume one another's wealth "unjustly" (*bi-l-bāṭil*), which classical exegetes interpret as encompassing all forms of exploitation arising from information asymmetry or ambiguity in contractual terms. This verse forms the principal normative basis for regulating transactions that may contain excessive uncertainty. The prophetic tradition further reinforces this framework.

In Ṣaḥīḥ Muslim, the Prophet forbade the sale of what one does not possess (*mā laysa 'indak*), a prohibition understood by jurists as an archetype of transactions where the object is unknown, unowned, or nonexistent at the time of contract. Similarly, the narration in Sunan Abū Dāwūd prohibiting *bay' al-gharar* provides a direct legal precedent

that establishes uncertainty as a determinant of invalidity. Together, these textual sources articulate a coherent doctrinal stance: contractual exchange must be founded upon clarity, transparency, and the protection of each party's rights. The cumulative implication of these sources is not merely the avoidance of risk per se, but the prevention of harm caused by structurally defective transactions in which essential elements, such as the object, price, delivery, or ownership, are insufficiently determined. Hence, the classical doctrine on *gharar* originates from a broader Qur'anic mandate for justice in economic behavior and is operationalized through prophetic commands that delineate the boundaries of acceptable uncertainty in market exchange.

Other ḥadīths narrated by Abū Hurayrah, Ibn 'Abbās, and several other Companions also affirm the prohibition of the following practices: *bay'atān fī bay'ah* (two transactions combined in a single contract), *bay' al-ḥaṣāt* (sale determined by throwing a stone to indicate the chosen item), *bay' al-malāmasah* (sale concluded merely by touching the item without proper inspection), *bay' al-munābadhah* (sale executed by simply throwing goods to each other), and *bay' ḥablah al-ḥabalah* (sale of an unborn offspring of an animal still in the womb). From these textual evidences, *fuqahā'* (jurists) conclude that excessive *gharar* (*gharar fāḥish*) is strictly prohibited under Shariah, as this prohibition encompasses all forms of transactions involving ambiguity in the object, timing, quantity, or utility, where such uncertainty may lead to disputes or exploitation. Accordingly, practices resembling extreme speculation, such as high volatility in investment, may be classified under this category, as they constitute a form of unlawful appropriation of wealth or hidden harm to others (Al-Masallati, 2021).

Etymologically, *gharar* is the *ism maṣdar* of *gharrara*, encompassing meanings of deficiency, risk, uncertainty, and conditions involving danger and ignorance, which indicate the potential for loss arising from ambiguity in a transaction (Ibn Manzūr, 1993). Al-Fayyūmī (n.d./770 H) explains that *al-gharar* refers to danger or risk, and that the Prophet ﷺ prohibited sales involving *gharar*. The expression "*ghararat-hu al-dunyā ghurūran*" means that the world deceived him with its adornments. Meanwhile, in al-Furūq, al-Qarāfī (n.d./684 H) defines *gharar* as something that appears outwardly attractive but in reality conceals harm. For this reason, the world is described as *matā' al-ghurūr* (a deceptive enjoyment). Furthermore, the term may also derive from *al-gharārah*, meaning deception. From this root comes the expression *rajulun ghurr* (a person who easily deceives or is easily deceived), which may apply to both the deceiver and the deceived. This is consistent with the saying of the Prophet ﷺ: "*al-mu'min ghurrun karīm*" "A believer is innocent (unsuspecting) and noble."

Terminologically, *gharar* has been defined by scholars using closely related concepts. From the Ḥanafī school, al-Kāsānī explains *gharar* as a form of risk that lies between existence and non-existence, reflecting a state of uncertainty or doubt (*shakk*), where the outcome of a transaction cannot be clearly ascertained (al-Kāsānī, n.d./5:163). Meanwhile, al-Jurjānī describes *gharar* as a condition in which the outcome of an action or transaction is unknown, making it uncertain whether it will occur or not (al-Jurjānī, n.d., p. 69). Similarly, within the Shāfi'ī school, al-Qalyūbī characterizes *gharar* as a situation where the outcome is concealed from human knowledge or lies between two possibilities, with the dominant possibility being one that gives rise to fear or concern (al-Qalyūbī & al-Burlusī 'Umayrah, 1995).

In al-Muhadhdhab, it is stated that "*gharar* is something whose condition is concealed and whose outcome is uncertain." Accordingly, 'Ā'ishah (*raḍiyallāhu 'anhā*) described Abū Bakr (*raḍiyallāhu 'anhū*) with the expression: "*farrada nashra al-islām 'alā gharrih*" meaning that he restored the glory of Islam when it was still in a concealed state, not yet clearly manifest (al-Shirāzī, n.d./476 H, Vol. 1, p. 532). Ibn Qāsim emphasized that "transactions involving *gharar* are not permissible." Al-Bājūrī further clarified that such contracts are invalid. He explained: "A sale involving *gharar* is one whose outcome is uncertain, or one that lies between two possibilities where the more dominant aspect

causes concern. This includes objects that are unspecified, overly general, or unseen prior to the contract” (Al-Bājūrī, 2020).

Ibn Taymiyyah defines *gharar* broadly as a condition in which the outcome of a transaction is unknown, emphasizing uncertainty as its central characteristic (Ibn Taymiyyah, 2004). In a more operational sense, Ibn al-Qayyim explains *gharar* as a situation where the subject matter of a contract cannot be delivered, regardless of whether it exists in reality or not. When the seller is unable to ensure delivery of the object being sold, the transaction involves excessive risk and may even resemble gambling, as it results in an inherent loss of value (*bi-waks*) for one of the parties (Ibn al-Qayyim, 1991). Similarly, Ibn Ḥazm narrows the concept of *gharar* to contracts concluded under ignorance concerning the quantity or the characteristics of the object of sale at the time the agreement is made, highlighting the role of informational asymmetry in rendering a transaction invalid (Ibn Ḥazm, n.d./456 H).

Accordingly, it can be concluded that both Ibn al-Qayyim and Ibn Ḥazm defined *gharar* by emphasizing its root causes. Ibn al-Qayyim focused on the inability to deliver the object of sale, whereas Ibn Ḥazm emphasized ignorance or lack of clarity at the time of the contract. Al-Ṣan‘ānī elaborated on this point when interpreting the ḥadīth regarding the prohibition of selling *ḥabl al-ḥabalah*. He stated: “Scholars have explained that the reason for this prohibition is that the object of sale does not exist, is uncertain, and cannot be delivered. All of these fall under the category of sales involving *gharar*” (al-Ṣan‘ānī, 1997). From the various definitions of *gharar* presented by the fuqahā’, it is evident that although the wording differs, the meanings converge. All definitions agree that *gharar* entails an element of harm due to the uncertainty of its outcome.

The Concept of al-Māl in Islamic Jurisprudence

In Islamic commercial jurisprudence (*fiqh mu‘āmalah*), the concept of *al-māl* (property or wealth) is a foundational element that determines the validity of financial transactions. Classical scholars such as Ibn Taymiyyah, Ibn al-Qayyim, and al-Qarāfī define *al-māl* as anything that possesses *manfa‘ah* (utility or benefit) recognized both by Shariah and society, thereby making it ownable, valuable, and a legitimate object of transaction.

To be classified as *al-māl mutaqaawwam* (fully valued and protected property under *Shariah*), an asset must fulfill four primary criteria: *taqaawwum*, possessing value acknowledged by *Shariah* and customary practice (not intrinsically prohibited); *intifā‘* providing clear and permissible benefit; *qābil li al-naql*, capable of being transferred or conveyed in ownership; and *qābil li al-damān*, subject to liability or guarantee, meaning the owner is entitled to compensation if it is damaged or lost. These criteria stem from the principle that wealth in Islam is not limited to tangible objects but may include intangible assets, provided they deliver recognized utility (*manfa‘ah ma‘qūlah*); accordingly, digital assets such as cryptocurrency can be analogized to this framework if supported by tangible utility, societal recognition, and adequate regulation, potentially qualifying them as legitimate digital commodities (*al-māl al-ma‘nawī*).

Volatility in Modern Financial Instruments and Its Treatment in Islamic Finance

Price volatility is an inherent characteristic of modern financial instruments, including stocks, gold, and cryptocurrencies. In contemporary financial markets, volatility is statistically measured as the degree of price fluctuation in an asset, influenced by factors such as market sentiment, economic news, and supply-demand dynamics. While cryptocurrencies like Bitcoin typically exhibit higher volatility than stocks or gold, this does not automatically equate to *gharar fāḥish* (prohibited excessive uncertainty).

Previous studies on cryptocurrency within Islamic law have largely focused on general halal-haram assessments, emphasizing the elements of *ribā*, *maysir*, and *gharar* as primary parameters (e.g., the Indonesian Ulema Council (*Majelis Ulama Indonesia*/MUI) fatwa declaring cryptocurrency haram due to speculation and extreme volatility, alongside scholarly critiques highlighting volatility as a source of value ambiguity). Some research

acknowledges that cryptocurrencies may satisfy the criteria of *al-māl* when asset-backed and transparent, yet frequently conflates volatility with *gharar* without methodological distinction (Bouri et al., 2024; Jamil et al., 2025).

However, a significant research gap persists, few studies systematically differentiate volatility as measurable and tolerable market risk (*al-ghurm*) from *gharar fāḥish* that invalidates contracts. Most literature lacks integration of quantitative approaches for *Shariah* risk validation and under-explores how volatility in conventional instruments (Islamic stocks, gold) is accepted as normal risk without transactional invalidation. This gap underscores the need for a more precise framework to evaluate digital assets in contemporary *fiqh mu'āmalah*.

Prior Debates on Cryptocurrency Fatwas in Islamic Law

Early scholarly debates on cryptocurrency fatwas largely revolved around the functional characteristics, risks, and legal status of Bitcoin as a representative model of cryptocurrencies. Widyastuti and Hermanto (2021) argue that Bitcoin can, in principle, represent cryptocurrencies in general due to its technological maturity and widespread adoption. They highlight advantages such as advanced hash rates that enhance security and public trust, as well as its perceived ability to hedge against inflation similarly to gold in a globalized economy. However, they also emphasize Bitcoin's speculative nature, as its value is highly dependent on collective acceptance and market sentiment, resulting in sharp price fluctuations. Additional concerns include irreversible transactions, lack of institutional guarantees against operational errors, vulnerability of hardware wallets to damage or cyberattacks, and the surge in prices driven by excessive public interest. These features have fueled ethical and shariah concerns related to uncertainty and risk.

In contrast, other scholars adopt a more permissive stance. Amri and Mohammed (2019), along with several Islamic scholars, argue that cryptocurrencies are not inherently prohibited. Adam (2019) similarly maintains that Bitcoin may be classified as property (*māl*) under Islamic law, as it possesses recognized value and social acceptance without directly contradicting shariah principles. Nevertheless, regulatory and institutional debates in Indonesia have taken a stricter position. Al Butary et al. (2022) note that cryptocurrencies fail to meet the legal criteria of currency under Indonesian Law Number 7 of 2011 and Bank Indonesia Regulation Number 17 of 2015. Consequently, the Indonesian Ulema Council through the VII *Ijtima* Ulama Forum, declared the use of cryptocurrencies as a medium of exchange unlawful, citing elements of *gharar* and *ḍarar*. These divergent positions illustrate that prior crypto-fatwa debates are shaped by tensions between technological innovation, shariah interpretation, and national legal frameworks.

RESEARCH METHODS

This study employs a qualitative-descriptive approach. This approach was chosen because the main focus of the research lies in mapping and conceptually analyzing the distinction between asset price volatility and *gharar* within *fiqh mu'āmalah*, as well as its implications for the status of cryptocurrency as *al-māl*. Through this approach, the study examines both the principles of classical Islamic law and contemporary positive regulations to assess whether volatility should be viewed merely as inherent market risk (*al-ghurm*) or, conversely, as *gharar fāḥish* that may invalidate contracts.

The data sources used are qualitative in nature and comprise both primary and secondary literature. Primary data include classical *fiqh* works such as *al-Muhadhdhab* by al-Shīrāzī, *Bidāyat al-Mujtahid* by Ibn Rushd, and *I'lām al-Muwaqqi'īn* by Ibn al-Qayyim, alongside contemporary *fatwas* and regulatory documents such as Bappebti Regulation Number 5 of 2019 and resolutions of the Shariah Advisory Council of Malaysia. Secondary data are drawn from previous studies and indexed scholarly articles, both national (SINTA) and international (Scopus and WoS), that discuss the dynamics of volatility in stocks, gold, and cryptocurrency from the perspectives of Islamic economics and positive law.

The analytical framework of this study rests on three main foundations. First, the *fiqh* indicators of *al-māl*, which include *taqawwum* (having value recognized by *Shariah*), *intifāʿ* (utility), *qābil li al-naql* (transferability), and *qābil li al-damān* (liability). Second, the application of the *fiqh* maxim *al-ghurm bi al-ghunm*, which emphasizes the balance between potential gain and risk. Third, a comparative analysis of cryptocurrency volatility with other investment instruments such as Islamic stocks and gold. Through this framework, the study systematically distinguishes volatility as a tolerable market risk from *gharar fāḥish* as excessive uncertainty prohibited under *Shariah*.

RESULTS

Distinction Between Gharar Fāḥish and Tolerable Market Risk in Fiqh Muʿāmalah

A review of Islamic jurisprudential literature indicates that the primary cause of *gharar* in sales transactions is ignorance concerning the object of contract (*al-maʿqūd ʿalayh*) in one or more of its aspects. This has been elaborated by several *fuqahāʾ*. Ibn Rushd al-Ḥafīd explained that *gharar* in sales may arise from various dimensions of ignorance: it may stem from uncertainty regarding the identification of the object of contract or the contract itself; from lack of clarity concerning the price or the characteristics of the goods being traded; from ambiguity in their quantity or the duration if the contract involves a deferred term; from doubt about the existence of the goods; or from the difficulty in taking possession, which essentially relates to the inability to deliver them. It may also arise from uncertainty about their safety or continuity of existence. In practice, there are forms of sales that contain some or even all of these elements (Ibn Rushd al-Ḥafīd, 2004).

Imam al-Nawawī (1972) explains that the prohibition of *gharar* is a fundamental principle in Islamic commercial law, encompassing a wide range of transactional issues. Nevertheless, he emphasizes that not all forms of *gharar* render a contract invalid, particularly when necessity or practical considerations make complete certainty unattainable. Certain transactions involving unavoidable or minor uncertainty are therefore permitted, such as selling a house without direct inspection of its foundation, selling a pregnant or lactating animal, or engaging in everyday exchanges where exact quantities or outcomes cannot be precisely determined. He further notes that there is scholarly consensus on the permissibility of contracts containing minor *gharar*, especially when such uncertainty does not lead to injustice or dispute and is commonly accepted in market practice, highlighting that *Shariah* accommodates practical realities while preventing harmful and excessive uncertainty.

From this, it can be concluded that minor *gharar* (*yasīr*) is permitted by consensus (*ijmāʿ*) due to necessity and urgency, since commercial transactions are inherently part of human needs. When a necessity entails the presence of *gharar* that cannot be avoided without excessive difficulty, and such *gharar* is deemed minor, being a matter commonly tolerated in society, then sales and other *muʿāwaḍāt* contracts, such as leasing, are considered permissible. Otherwise, they are not permitted. Meanwhile, Mālikī scholars add a further condition in their exceptions for minor *gharar*. According to them, minor *gharar* is only tolerable when it is not the primary objective of the contract. If *gharar* itself becomes the aim, no tolerance is granted. They also stress that in cases of doubt over whether a certain *gharar* is minor or not, the safer view is to avoid tolerating it (Ḥammād, n.d.).

There are two categories of *gharar* in Islamic jurisprudence: that which affects the validity of contracts (*muʿaththir*) and that which does not (*ghayr muʿaththir*). Minor *gharar* (*ghayr muʿaththir*) does not invalidate a contract, as explained by Imam al-Nawawī, who described it as forms of uncertainty that are difficult to avoid without excessive hardship or as trivial ambiguities; in such cases, the contract remains valid. However, this tolerance varies by contract type: in financial exchange contracts (*muʿāwaḍāt māliyya*) such as sales, major *gharar* renders the transaction invalid, whereas in non-financial contracts like gifts (*hibah*) or charity (*ṣadaqah*), even substantial *gharar* does not void the agreement, since there is no reciprocal exchange of rights or risk of loss for the recipient.

Gharar that significantly impacts transactions and threatens economic stability is classified as major or affecting *gharar* (*mu'aththir*), recognized as a contributor to global economic crises and particularly detrimental in *mu'awadāt māliyya* such as sales, leasing, and partnerships. For a contract to contain affecting *gharar*, five conditions must be fulfilled: (1) the *gharar* must be substantial (*fāḥish*), as scholars unanimously excuse minor *gharar* while major *gharar* invalidates contracts; (2) it must be avoidable, since unavoidable uncertainty (e.g., exact water usage in a public bath) preserves validity; (3) there must be no urgent societal necessity, which may tolerate even substantial *gharar* to prevent tangible hardship; (4) the *gharar* must pertain to the principal object of the contract (*ma'qūd 'alayh*), unlike secondary elements (e.g., a goat's fetus follows the mother and is permissible, but selling the fetus alone is prohibited); and (5) it must occur in financial exchange contracts, as substantial *gharar* invalidates only these, while non-financial contracts like *hibah* and *waqf* remain valid despite *gharar*, in line with the principle that Islamic law prohibits transactions leading to hostility or unlawful wealth appropriation only when explicitly indicated by textual evidence (Al-Masallati, 2021).

The Legal Maxim *al-ghurm bi al-ghunm* (Risk Proportional to Return)

The fiqh maxim *al-ghurm bi al-ghunm* appears in several formulations, including *man lahu al-ghunm 'alayhi al-ghurm* (“whoever gains profit must also bear the risk”) or *al-ghunm bi al-ghurm* (“profit is accompanied by risk”). Terminologically, *al-ghurm* refers to an obligation or liability that must be borne by a person as a consequence of ownership or transaction, whether in the form of financial loss or exposure to personal risk. Conversely, *al-ghunm* is understood as the benefit or profit derived from such activity. Thus, this maxim affirms the principle of balance between benefit and risk, namely, that every profit is inseparable from the potential loss that accompanies it. This maxim is also related to, yet distinct from, another legal maxim: *al-kharāj bi al-ḍamān*. While *al-kharāj bi al-ḍamān* emphasizes that any yield or profit must be accompanied by a guarantee of liability, *al-ghurm bi al-ghunm* highlights the reciprocal relationship between the right to benefit and the obligation to bear burdens.

In practice, this maxim applies to both shariah-based and non-shariah-based causes. For instance, in shariah contracts such as *muḍārabah*, the sharing of profits must necessarily be accompanied by the sharing of risk. In non-shariah causes, such as state-imposed taxation on wealth ownership, taxes remain the obligation of property owners because they receive guarantees of protection for their lives and assets from the state. By contrast, this obligation is not imposed upon children or, in certain contexts, women, since they are not direct subjects of legal exposure.

The maxim *al-ghurm bi al-ghunm* finds practical relevance across various forms of classical *mu'āmalāt*. For example, the cost of returning a borrowed item is borne by the borrower since the benefit lies with them, whereas the cost of returning a deposited item remains the responsibility of the depositor because the safekeeping is undertaken for their own benefit. Similarly, the expenses of drafting a sales contract or transaction document are the buyer's responsibility, as these documents strengthen ownership rights and provide direct benefits to the buyer.

Moreover, liability for collateral lies with the pledgee because they gain the right to hold the asset as security for the debt. In the case of a *waṣī* (executor) who sells inherited property, if the proceeds of the sale are lost while the asset itself has been damaged, the buyer is entitled to demand repayment from the *waṣī*, who may then claim reimbursement from the relevant beneficiaries. This principle is also reflected in the collective agreement among ship passengers to jettison cargo for the sake of communal safety, where losses are shared collectively since the benefit of survival is enjoyed by all passengers. Even the costs of technical services such as asset distribution, measurement, and weighing are shared by all involved parties, as the benefits are proportionally returned to them.

All these examples illustrate that the maxim *al-ghurm bi al-ghunm* functions as an essential instrument for ensuring fairness in the distribution of benefits and burdens both

in traditional *mu'āmalāt* and in contemporary practices, including investment, Islamic insurance (*takāful*), and the management of modern digital assets.

Comparative Analysis with Gold and Stocks

In efforts to understand the dynamics of shariah-compliant investment within an increasingly complex global market, several studies have examined the comparison between Islamic equities, gold, and cryptocurrency as portfolio instruments. Each of these assets possesses distinct characteristics in terms of risk, volatility, and normative compliance, which in turn influence their role in diversification strategies.

A study by Nomran et al. (2024) explored the influence of cryptocurrency returns on Islamic and conventional stock returns in Gulf Cooperation Council (GCC) countries during the 2016–2019 period. Their findings indicate that, in general, an increase in cryptocurrency returns has a negative impact on both types of stocks. However, the negative impact was stronger and statistically significant for conventional stocks compared to Islamic equities. Furthermore, when analyzing the period before and after the 2017–2018 cryptocurrency crash, the effect on Islamic equities became insignificant, whereas the effect on conventional stocks remained significant. This strengthens the assumption that Islamic equities possess greater resilience to crypto market shocks.

In another study, Ashraf et al. (2023) examined the diversification potential of Islamic equities, gold, and Bitcoin within a single portfolio. They found that each instrument exhibits unique characteristics in distributing risk. Gold demonstrated high stability with relatively low risk, making it an effective hedging instrument. Bitcoin, on the other hand, offered high return potential but with substantial volatility. The combination of all three instruments within a portfolio was considered capable of reducing overall risk, particularly during periods of heightened market volatility.

Meanwhile, Rashid and Amin (2023) employed a time–frequency domain approach to investigate the relationship between stock market volatility represented by indices such as the VIX and both conventional cryptocurrencies and gold-backed Islamic cryptocurrencies. Their findings reveal that gold-based Islamic cryptocurrencies showed low or even no coherence with stock market volatility. This highlights their stronger potential as hedging instruments compared to conventional cryptocurrencies.

Terraza et al. (2024) also contributed significantly by comparing the volatility dynamics of Bitcoin, gold, and U.S. stock indices (S&P500, Nasdaq, Dow Jones) before and during the COVID-19 pandemic. Using a Artificial Neural Networks (ANN), the study found that the correlation between Bitcoin and stock markets increased during the pandemic. This reduced the effectiveness of Bitcoin as a diversification tool. By contrast, gold maintained its stability and continued to function as a safe haven during periods of high market uncertainty.

Shariah-compliant investment instruments demonstrate varied responses to market dynamics. Islamic equities tend to have defensive characteristics in facing market fluctuations, particularly those driven by cryptocurrency volatility. Gold remains the most stable asset, widely accepted within the framework of *fiqh mu'āmalah*, and functions effectively as a hedge during times of crisis. Cryptocurrency, while offering high potential returns, carries substantial risk and volatility and is heavily dependent on external sentiment and regulatory uncertainty. Nevertheless, variants of cryptocurrency backed by real assets such as gold and developed in line with shariah principles exhibit greater stability, thus holding potential as more suitable alternatives for Islamic investment.

In response to the growing interest in shariah-based investment, financial instruments must be evaluated not only in terms of shariah compliance but also with regard to their market performance and effectiveness in portfolio strategies. To this end, the following section presents a synthesis of the literature in the form of a vertical table, summarizing the normative aspects, market characteristics, diversification functions, and key risks of each instrument based on Scopus-indexed research conducted between 2020 and 2025. This presentation aims to clarify the relative positioning of these three instruments in the

context of contemporary shariah-compliant investment. Table 1 shows the comparative analysis of investment characteristics.

Table 1. Comparative Analysis of Investment Characteristics: Islamic Stocks, Gold, and Cryptocurrencies

Aspect	Islamic Stocks	Gold (Bullion)	Cryptocurrency
Shariah Status	Recognized as Shariah-compliant due to exclusion of <i>riba</i> , <i>gharar</i> , and non-halal sectors	Widely accepted in Islamic finance jurisprudence (<i>fiqh muamalah</i>) as a tangible and intrinsically valued asset	Subject to debate, conventional cryptocurrencies are generally not Shariah-compliant, but gold-backed Islamic variants are more acceptable
Market Characteristics	Volatile, yet more defensive and relatively stable than conventional stocks, especially during crises	Stable during crises; lower price fluctuation compared to stocks and cryptocurrencies	Highly volatile; sensitive to global news, regulatory changes, and investor sentiment
Role in Diversification	Effective in Shariah-compliant portfolios; relatively resilient to cryptocurrency market shocks	Highly effective as a safe haven asset; increases portfolio stability during market uncertainty	Offers significant diversification during stable market periods; less effective in crises. Gold-backed Islamic crypto tends to be more stable
Key Risks	General market risks; sectoral concentration; global sentiment	Short-term price fluctuations, liquidity and storage challenges	Extreme volatility, unclear regulations, cybersecurity threats, and high speculative behavior
Conclusion	Recognized as Shariah-compliant despite inherent volatility	Holds intrinsic Shariah value despite price risks	Volatile, yet operates under market risk mechanisms comparable to other financial instruments

As the digital asset market continues to evolve, recent studies indicate that not all types of cryptocurrencies consistently exhibit extreme volatility. Stablecoins such as USDC and USDT, which are backed by real assets and pegged to fiat currencies, demonstrate relatively low and more stable volatility compared to other speculative cryptocurrencies. This characteristic positions stablecoins closer to traditional financial instruments in terms of price stability (Gherghina & Constantinescu, 2025). Moreover, cryptocurrencies with large market capitalizations such as Bitcoin (BTC), Ethereum (ETH), and Binance Coin (BNB) display varying volatility patterns. Although generally more volatile than stocks or gold, there are periods in which their volatility is not significantly different from other capital market instruments, particularly under stable market conditions (Brini & Lenz, 2024).

In relatively stable market conditions, absent of extreme shocks such as geopolitical crises or the collapse of major institutions, crypto asset volatility does not always remain high or uncontrollable. These differences indicate that crypto volatility is asymmetric and dependent on the unique characteristics of each asset. Such findings reinforce the argument that no single universal approach can model the volatility of all crypto assets, as volatility is conditional upon the asset type and prevailing market regime. Therefore, the generalization of all cryptocurrencies as consistently exhibiting extreme volatility must be reconsidered with greater caution, taking into account the empirical dynamics of each asset.

Fulfillment of al-Māl Mutaqawwam Criteria by Cryptocurrency

This discourse must also be situated within the broader context of the status of crypto assets as objects of *mu'āmalah*. A study by Ahmad Rehan (2025) demonstrates that cryptocurrency may be categorized as property (*al-māl*) if it fulfills four essential conditions in *fiqh mu'āmalah*: *taqawwum* (possessing value recognized by *Shariah*), *intifā'* (utility), *qābil li al-naql* (transferability), and *qābil li al-ḍamān* (liability). From this perspective, crypto is deemed valid as a digital commodity that can be transferred and

holds economic value, provided its use complies with transparent transactional principles and avoids prohibited elements.

Abadi et al. (2023) and Fahmi (2023) further reinforce this position, arguing that digital assets such as NFTs and cryptocurrencies substantively meet the characteristics of *al-māl al-ma'nawī* intangible property that nevertheless provides tangible benefits and can be transacted. This assessment does not overlook the presence of risks, including volatility, but stresses that volatility is not an automatic reason for rejecting the Shariah validity of an asset, so long as the fundamental elements of property and transactional clarity are fulfilled. Even within positive law and global economic practice, the value of property does not depend on its physical form but rather on its utility, social recognition, and legal exchangeability.

Ultimately, the question of whether volatility constitutes *gharar* cannot be separated from both classical *fiqh* understandings and contemporary economic realities. Volatility is an inherent feature of dynamic markets and cannot be avoided in modern economic systems. What differentiates market risk from *gharar* is whether the risk is measurable, mitigable, and embedded within a fair contractual structure. Accordingly, volatility in cryptocurrencies and stocks is not inherently *gharar* and may be accepted under Shariah when the conditions outlined by both classical and contemporary *fuqahā'* are satisfied.

The debate over the legal classification of cryptocurrency cannot be separated from the broader discourse on the status of property (*al-māl*) in Islamic jurisprudence and its recognition within positive law. In classical *fiqh*, property is determined by four main indicators: *taqawwum* (value recognized by shariah), *intifā'* (utility), *qābil li al-naql* (transferability), and *qābil li al-damān* (liability). Several scholars argue that although immaterial in form, cryptocurrency may be recognized as property if these four indicators are fulfilled. Rehan (2025) affirms that cryptocurrency is valid as a digital commodity if it possesses recognized utility and can be transferred, though the element of *damān* remains contested due to its volatility. Similarly, Abadi et al. (2023) stress that crypto assets may be categorized as legitimate property so long as they are supported by underlying assets and regulatory safeguards. Likewise, Selçuk and Kaya (2021) emphasize that legality and tangible utility are decisive factors in permitting cryptocurrency, consistent with the *fiqh* maxim that the default rule in transactions (*al-aşl fi al-mu'āmalāt*) is permissibility unless evidence indicates prohibition.

From the perspective of positive law, Indonesia's regulatory framework provides an additional dimension. Although Law Number 7 of 2011 on Currency prohibits the use of cryptocurrency as a means of payment, BAPPEBTI Regulation Number 5 of 2019 explicitly recognizes it as a tradable digital commodity. This dual stance reflects a cautious yet pragmatic regulatory approach, similar to that of the Malaysian Shariah Advisory Council, which explicitly acknowledges cryptocurrency as *māl* under certain conditions (Baharudin et al., 2025). The convergence of these legal frameworks illustrates that cryptocurrency can be treated as property in law, provided it remains subject to Shariah compliance and positive legal provisions.

Accordingly, volatility should not be equated with *gharar fāḥish*. Rather, it must be understood as a form of market risk (*al-ghurm*) inherent in investment, comparable to fluctuations that also occur in gold and equities (Baur & Dimpfl, 2021; Rotta, 2022). Therefore, cryptocurrency may be classified as *al-māl mutaqaawwam* if it meets substantive *fiqh* criteria and is traded within a regulated ecosystem. The key implication is clear: volatility represents a market risk to be mitigated, not a justification for outright prohibition.

DISCUSSION

Volatility in the investment context refers to a statistical measure of the degree of price fluctuation of an asset over a certain period, reflecting inherent market risk and uncertainty. In conventional assets such as stocks, volatility arises from economic news, firm performance, and market dynamics, where higher volatility is associated with higher

risk–return trade-offs. Even gold, despite its reputation as a safe-haven asset, exhibits volatility during periods of global uncertainty (Hidayah & Saidah, 2024). However, crypto assets demonstrate substantially higher volatility, driven by market sentiment, public statements, regulatory developments, and social media speculation (Firdausia & Nasrudin, 2023; Al-Amin & Rahmat, 2024). Historical episodes illustrate this extreme instability, such as Bitcoin’s surge from approximately USD 1,000 to over USD 20,000 in 2017 before collapsing below USD 3,000, and its 2021 peak at USD 69,000 followed by a decline exceeding 200%. These dramatic fluctuations generate *jahālah* in value, unpredictable losses, and speculative behavior resembling *maysir*, leading some scholars to classify excessive cryptocurrency volatility as *gharar fāhish* and thus grounds for prohibition (Bouri et al., 2024; Medbesh & Khalil, 2024).

From an Islamic legal perspective, however, volatility per se does not constitute *gharar*. Shariah prohibits only excessive, speculative, and immeasurable uncertainty that causes injustice or deception, while tolerating measurable and manageable uncertainty as legitimate market risk (*al-ghurm*). Jamil et al. (2025) note that the exceptionally high volatility of cryptocurrencies raises ethical and Shariah concerns, particularly in the absence of clear regulatory frameworks or definitive fatwas, citing volatility, regulatory ambiguity, and uncertainty as major obstacles to Islamic integration. Al-Mansouri (2025) further argues that when price fluctuations generate substantial transactional ambiguity, they may qualify as *gharar*, although this classification is not universal and depends on context and structure.

To address this distinction, modern financial tools such as generalized autoregressive conditional heteroscedasticity, stochastic volatility models, historical volatility, implied volatility, and Value at Risk offer systematic methods to measure and manage market fluctuations. These tools enable both investors and Shariah authorities to distinguish between tolerable market risk and destructive uncertainty that leads to *gharar*. Volatility that is predictable, quantifiable, and accompanied by transparency and clear contractual structures can therefore be classified as permissible market risk rather than prohibited uncertainty. This perspective is consistent with Islamic stock markets, where price volatility is viewed as natural and unavoidable so long as it does not stem from pure speculation. Empirical studies by Erdoğan et al. (2020) demonstrate volatility spillovers from foreign exchange markets into Islamic equities in developing countries, while Ilyas (2022) identifies bidirectional asymmetric volatility linkages between conventional and Islamic markets.

Furthermore, evidence from Farhat (2025) shows that shariah-compliant firms generally exhibit lower risk and more controlled volatility than non-compliant firms, underscoring the stabilizing role of Shariah principles. Prohibitions of *ribā* and *gharar* function as mechanisms to curb excessive speculation and promote financial discipline. These findings suggest that the core issue is not volatility itself but the transactional structure, underlying intention, and availability of risk-mitigation mechanisms. Volatility exploited for baseless short-term speculation heightens *gharar* potential, whereas volatility arising from normal market dynamics and addressed through accountability and prudence remains acceptable.

The conceptual contribution of this study lies in clearly distinguishing price volatility as inherent market risk (*al-ghurm*) from *gharar* as prohibited contractual uncertainty, a distinction that is crucial for the normative formulation of fatwas and regulatory policies on crypto assets. Not all uncertainty constitutes *gharar fāhish*, especially when volatility is measurable, predictable, and transparently disclosed prior to contract execution. Conflating volatility with *gharar* risks oversimplifying the epistemic complexity of digital markets and may result in overly restrictive legal judgments. Accordingly, shariah fatwas should avoid equating all price fluctuations with invalidating *gharar* and instead recognize permissible volatility under the principle of *al-ghurm bi al-ghumm*, which legitimizes bearing losses in pursuit of lawful gains.

This framework aligns with DSN-MUI Fatwa Number 80/DSN-MUI/III/2011, which emphasizes transparency and disclosure to prevent *gharar* in Islamic capital market transactions, principles extendable to cryptocurrency through blockchain-based transparency, auditability, and accessible records. Supporting this view, Gustanto and Muhammadi (2024) highlight the importance of institutional governance quality, effective use of information technology, and investor literacy in mitigating *gharar* arising from asset price fluctuations. Consequently, a proportional shariah approach to crypto assets should adopt a *tawaqqufiyyah* methodology grounded in empirical evidence and *maṣlahah mursalah*, fostering inclusive, ethical, and Shariah-compliant crypto markets aligned with the objectives of *maqāṣid al-shariah* (Indarningsih, 2022).

CONCLUSION

This study examines whether cryptocurrency volatility should be classified as *gharar faḥish* or market risk. The findings suggest that price fluctuations similar to equities and gold are better understood as inherent market risk (*al-ghurm*), rather than prohibited *gharar*, if managed through transparent and measurable contracts. Therefore, not all cryptocurrencies are inherently high-risk; stablecoins and large-cap coins exhibit more moderate volatility. The novelty lies in distinguishing Shariah-acceptable volatility from *gharar*, which constitutes contractual invalidity. Theoretically, this expands the discourse of *fiqh mu`āmalah*; practically, it suggests strengthening price transparency, ensuring clear underlying assets, improving Shariah literacy, and using quantitative instruments to validate Shariah risk. If cryptocurrencies meet the principles of *fiqh* and avoid *riba*, *maysir*, and *gharar faḥish*, they can be considered *al-māl mutaqaḥḥam*. Proportional regulation and fatwas based on the *maqāṣid* (Islamic principles) can foster a stable and sharia-compliant digital ecosystem.

This research contributes conceptually by proposing a framework to distinguish between volatility and *gharar*, and practically by recommending the use of quantitative models such as Value at Risk for *Shariah* risk validation. This study is limited to normative analysis, thus lacking empirical data. Future research should include qualitative interviews with fatwa authorities, regulators, and market players, as well as develop evaluative instruments based on the *maqāṣid al-shariah* (Islamic principles) for application in contracts, zakat, waqf, and inheritance. These efforts can better integrate *fiqh mu`āmalah* (Islamic jurisprudence) with the global digital economy, while reaffirming sharia as an ethical and practical guideline in modern financial markets.

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