Comparative Study of the Legal Foundations of Cryptocurrency Trading and Mining in Iranian, European Union, and U.S. Law

1. Bahareh Baradaran Kholghi: Department of Private Law, Ma.C., Islamic Azad University, Mashhad, Iran
2. Seyed Mohsen Hosseini Pouya*: Department of Private Law, Ma.C., Islamic Azad University, Mashhad, Iran
3. Mohammad Reza Ghazizadeh: Department of Private Law, Ma.C., Islamic Azad University, Mashhad, Iran

*Correspondence: m.hoseini.p@mshdiau.ac.ir

Abstract

The principal objective of this study is to conduct a comparative examination of the legal foundations governing the purchase, sale, and mining of cryptocurrencies under the laws of Iran, the European Union, and the United States, with a view to identifying substantive differences in the approaches adopted by legislators and judicial authorities in these jurisdictions and determining the necessary foundations for developing a coherent legislative framework within the Iranian legal system. This study employs a descriptive-analytical method based on comparative legal research. The findings indicate that the European Union, through a structured and proactive regulatory approach embodied in the Markets in Crypto-Assets Regulation (MiCA), has defined crypto-assets as "digital assets" within a specified regulatory framework. By contrast, despite the absence of a single comprehensive federal statute, the United States has largely managed the legal environment through an approach commonly characterized as "regulation by enforcement" and by applying existing securities laws to emerging crypto-related instruments and transactions. In the Iranian legal system, the legal foundations governing this field remain characterized by a degree of duality: cryptocurrency mining has been formally recognized as an industrial activity, whereas cryptocurrency transactions, particularly their purchase and sale, remain legally uncertain because of legislative gaps and the absence of a precise legal characterization of cryptocurrencies as property, commodities, or currency. Consequently, the legal bases for enforcing contractual obligations and establishing civil liability in cryptocurrency transactions remain ambiguous. The continued absence of comprehensive legislation in Iran, or reliance solely on administrative directives and regulations, not only undermines transactional certainty and may result in the infringement of individual rights, but also jeopardizes legal and judicial certainty. The findings of this study demonstrate that the Iranian legal system requires a transition from a predominantly "administrative" approach toward a comprehensive legislative framework. Drawing on the European Union model, it is recommended that cryptocurrencies be legally characterized as "digital financial assets" and that a clear distinction be established between their function as commodities and their potential function as means of payment. Furthermore, the legal foundations of smart contracts and the civil liability of cryptocurrency miners should be expressly regulated within the framework of private law. Such an approach could facilitate the development of financial technologies while simultaneously preventing potential abuses and protecting individuals' rights.

Keywords: Sale, Mining, Cryptocurrency, Comparative Study, Regulation, Digital Asset, Iranian Legal System.

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1. Introduction

The emergence of Distributed Ledger Technology (DLT) and, consequently, cryptocurrencies has confronted the traditional structures of global financial and monetary systems with an existential challenge. This phenomenon is not merely a technological innovation; rather, it represents a paradigmatic transformation in the concepts of "value" and "exchange" that challenges the classical assumptions of both private and public law. Whereas global financial systems have for centuries been built upon centralized intermediary institutions, the decentralization brought about by blockchain technology has necessitated a redefinition of concepts such as "ownership," "credit," and "civil liability" within the context of electronic transactions. At the heart of these developments are "mining," as the infrastructure underlying network security and value creation, and "purchase and sale transactions," as the principal function of the market, which together constitute the two major dimensions of this transformation. The first legal challenge concerns the determination of the legal nature of digital assets: should cryptocurrency be regarded as "money," a "commodity," or merely a "digital financial asset"? The absence of consensus regarding this characterization produces different legal consequences in the fields of contract law, tax law, and criminal liability, thereby reinforcing the need for a careful examination of its theoretical foundations within leading legal systems. At the international level, two major approaches to this phenomenon have emerged. The European Union has adopted a structured and proactive approach through the enactment of the comprehensive Markets in Crypto-Assets Regulation (MiCA), seeking to establish a harmonized framework for investor protection and integration of the Digital Single Market. By contrast, the United States relies largely on existing legal structures and a "regulation by enforcement" approach implemented by agencies such as the Securities and Exchange Commission (SEC), attempting to adapt classical securities-law concepts to emerging digital assets. The contrast between these approaches makes a comparative study of their legal foundations a valuable model for understanding the adaptability and resistance of legal systems in the face of technological change. The Iranian legal system, as a codified legal system with jurisprudential foundations, has experienced a complex and uneven trajectory in confronting this technology. Policymaking in Iran has predominantly relied on restrictive, administration-centered approaches under which cryptocurrency mining has merely been recognized as a licensed industrial activity. However, in the field of cryptocurrency "purchase and sale" and the legal nature of smart contracts, the absence of explicit statutory provisions and the prevalence of legal ambiguity have created serious challenges for the commercial community and courts concerning the ascertainment of contractual intent, the validity or invalidity of contracts, and remedies for breach of obligations. Without a profound understanding of the theoretical foundations and approaches adopted in comparative law, particularly in the European Union and the United States, any attempt at regulation in Iran may result in ineffective rules or rules incompatible with the requirements of global markets. The significance of the present study lies in its attempt to move beyond a superficial analysis of regulations and examine the underlying foundations, including theories of ownership, the nature of obligations, and liability, while addressing gaps in Iranian legal scholarship through an assessment of the strengths and weaknesses of foreign models. The principal objective of this study is therefore to comparatively analyze the legal foundations of the purchase, sale, and mining of cryptocurrencies in selected legal systems and to assess their compatibility with the principles of Iranian law.

2. Iranian Law

An examination of the foundations governing commercial exchanges and the mining of digital assets, particularly in light of their jurisprudential and legal origins, constitutes one of the most challenging subjects in contemporary legal doctrine. This section examines the substantive nature of these activities and explains the conflicting views among Islamic jurists and legal scholars as the central focus of the present analysis.

2.1. Jurisprudential Foundations

2.1.1. Cryptocurrency Sale and Mining on the Basis of Gharar

An examination of the legal nature of cryptocurrencies in light of the jurisprudential rule prohibiting *gharar* requires a methodical inquiry into the meaning and scope of this concept. *Gharar* [The distinction between *gharar* and similar concepts: *Gharar* and fraud (*tadlis*): fraud refers to conduct that causes one party to a transaction to be deceived (Jafari Langroudi, 2013). In other words, fraud is an unconventional form of deception employed by one party, or with that party's knowledge and participation, in order to mislead the other party and induce that person to enter into a transaction to which he or she would not have consented had the true facts been known (Katouzian, 2009). In Islamic jurisprudence, *gharar* has in some instances been used in the sense of fraud (Rafiei, 1999). The confusion between *gharar* and fraud appears to result from the presence of two elements, namely "ignorance" and "harm," in both concepts. Nevertheless, fundamental differences exist between them. The first distinction is that in *gharar*, the ignorance of one or both parties concerning the subject matter of the transaction is itself known to the disadvantaged party or to both parties and falls within their awareness; in other words, the party or parties are aware of their own lack of knowledge concerning the subject matter. In fraud, however, the deceived party not only lacks knowledge regarding the subject matter of the transaction but is also unaware of that lack of knowledge. A further difference is that fraudulent conduct is deliberately undertaken to deceive the other party and ultimately induce that party to conclude the transaction, whereas no comparable deceptive conduct for such purposes occurs in *gharar*. Moreover, under the Civil Code, fraud generally gives rise to a right of rescission, whereas a transaction affected by *gharar* is considered void. Finally, the subject matter of fraud must concern a specific object (Jafari Langroudi, 2013), whereas the subject matter affected by *gharar* is not subject to such a limitation. *Gharar* and mistake: a mistake is an incorrect conception of something that is contrary to reality (Shahidi, 2003). In light of the definition of mistake and the meaning attributed to *gharar*, it appears that both doctrines may ultimately be associated with the rule prohibiting harm. Where either affects a transaction, the consequence may be invalidity. Despite these similarities, however, the two legal doctrines differ. On the one hand, mistake constitutes a defect in volition; more precisely, a person alleging the invalidity of a contract must prove the existence of the mistake contrary to the presumption of validity. By contrast, with respect to *gharar*—including uncertainty regarding the existence of the subject matter, uncertainty regarding its acquisition or availability, and uncertainty concerning its characteristics, type, or quantity—the absence of *gharar* constitutes a condition for the formation of the contract. Accordingly, the party alleging invalidity need not necessarily establish the defect, whereas the party asserting the validity and existence of the contract may be required to demonstrate the absence of *gharar* at the time of contracting. On the other hand, the scope of mistake is broader than that of *gharar*, because *gharar* relates primarily to the subject matter of the transaction, whereas mistake may concern not only the subject matter but also the identity of the contracting party and may affect the legal fate of the contract. *Gharar* and harm: according to one view, *gharar* is the possibility of harm arising from ignorance concerning one of the aspects of the subject matter of the transaction (Jafari Langroudi, 2013). Accordingly, actual harm is not inherent in the concept of *gharar*. The first distinction between *gharar* and harm is therefore that, unlike harm, *gharar* does not encompass loss that has already materialized. Another distinction is that harm has a general meaning and may arise both from juridical acts and legal events, whereas *gharar* is specific to contractual transactions. A further difference is that the existence of harm in contracts does not necessarily render a contract void, whereas the existence of prohibited *gharar* generally entails invalidity. *Gharar* and ignorance: ignorance means the absence of knowledge concerning the subject matter of the transaction. This does not refer to ignorance of every aspect of the transaction, but rather to ignorance concerning the ability to deliver, the existence, quantity, attributes, and type—or customary form—of the subject matter (Vahdati Shabiri, 2000). Islamic jurists differ as to whether "ignorance" and *gharar* are identical or distinct concepts. Some maintain that the relationship between them is one of partial overlap: in certain cases *gharar* may exist without ignorance, while in other cases ignorance may exist without *gharar*. For example, the sale of a runaway animal whose characteristics are known may involve uncertainty regarding delivery despite knowledge of its characteristics (Al-Amili, 1896). Conversely, where objects ordinarily determined by measure, number, or weight are not measured, ignorance may exist even where the transaction does not necessarily entail prohibited *gharar*. Other jurists define *gharar* as ignorance concerning the characteristics or quantity of the subject matter of the transaction (Al-Najafi,

2001). On the basis of the foregoing analysis, because *gharar* concerns the probability of future harm, the legal concepts of *gharar* and harm are conceptually distinct. Their relationship lies in the fact that ignorance may, in some circumstances, constitute the source of *gharar*.] In Arabic lexicography, the concept of *gharar* fluctuates among the meanings of "risk," "ignorance," "deception," and "inattention," a plurality that is also reflected in jurisprudential writings (Seyah, 2008). Nevertheless, in the legal analysis of cryptocurrency transactions, *gharar* is not merely a lexical concept; rather, it functions as a criterion for evaluating abnormal risk and lack of transparency in transactional and mining processes (Al-Zabidi, 1993; Azarnoush, 2012). Accordingly, explaining this concept is important not merely through an inquiry into its linguistic roots, but through a functional analysis of its role in Imamiyyah jurisprudence and positive law in order to determine whether extreme market volatility and the unpredictable nature of mining constitute prohibited *gharar*. In Imamiyyah jurisprudence, which constitutes one of the foundations of the Iranian legal system, considerable disagreement is evident concerning the meaning of *gharar*. Some jurists (Al-Ansari, 1994) equate *gharar* with "ignorance materially affecting knowledge of the subject matter" (Al-Naraqi, 1996) and interpret it as ignorance concerning the realization or attributes of the object sold. By contrast, a second approach emphasizes the element of "risk" and defines *gharar* as the rational possibility of avoidable harm (Al-Jawhari, 1989; Ibn Manzur, 1984); that is, any uncertainty concerning the existence of property, its deliverability (Al-Amili, 1896), or its quantitative and qualitative characteristics that is regarded by customary standards as involving abnormal risk may fall within the prohibition of *gharar*. This second approach, which focuses on the "possibility of avoidable harm," is more useful for analyzing transactions involving digital assets because the inherently volatile nature of cryptocurrencies raises fundamental questions concerning the distinction between "market risk" and "prohibited *gharar*." A comparison with Sunni jurisprudence further highlights the distinction between "ignorance-centered" and "risk-centered" approaches. Whereas Sunni jurisprudence predominantly explains *gharar* in terms of an "unknown outcome" (Al-Sarakhsi, 2016; Ibn Taymiyyah, 1951) and "uncertainty concerning the existence or non-existence of the subject matter," Iranian law, drawing upon Imamiyyah doctrine, may be capable of developing a more comprehensive model for the regulation of cryptocurrency transactions. The principal challenge in cryptocurrency sale and mining is therefore to distinguish between "ordinary economic risks" and "legal *gharar*." It appears that construing *gharar* as "ignorance arising from uncertainty concerning existence, type, or deliverability" provides an important criterion for explaining the legitimacy of smart contracts and mining processes within Iranian law, although traditional jurisprudential views require reconsideration and adaptation to the requirements of contemporary technology (Al-Kasani, 1974). The theory advanced by opponents of the legitimacy of cryptocurrency sale and mining is primarily based on the "suspicion of *gharar*." Proponents of this view argue that, because the constitutive elements of cryptocurrencies, the identity of the entity conferring credibility upon them, the purpose of their issuance, and the mechanism through which their value is determined are allegedly uncertain, transactions based on such assets constitute a clear instance of "ignorance materially affecting the contract" and are consequently void. According to this group, the decentralized nature of cryptocurrencies and the absence of governmental support or tangible backing cause contracts concluded between the parties to fall within the prohibition of *gharar* and render them devoid of religious and legal validity because of the alleged inherent lack of transparency concerning the counter-performances. In criticizing this approach, it should be noted that the physical or tangible character of contractual counter-performances is not among the constitutive requirements for the validity of sale under Islamic jurisprudence or law. In contemporary banking systems, electronic money possesses value and purchasing power despite lacking physical embodiment, and its legal nature has been accepted by contemporary jurists and religious authorities. From a jurisprudential perspective, what matters in "delivery" (*qabd*) is the transfer and placing of the asset at the disposal of the transferee, which in cryptocurrency networks may be realized through the transfer of private keys and the recording of the transaction on the distributed ledger. Accordingly, reliance upon the non-physical nature of cryptocurrency as a basis for invalidating the contract lacks persuasive force and confuses the concept of "delivery" with the "physicality of the object sold." Moreover, the assertion of absolute ignorance concerning the nature of cryptocurrencies is inconsistent with the technical realities governing these protocols. Technical details ranging from mining methods and scheduling protocols to maximum token supply are transparently explained in technical documents known as "white papers." Even for contracting parties lacking technical expertise, general knowledge of the function and utility of these instruments may be sufficient to protect them against abnormal risk, much as occurs with other financial instruments such as investment funds. Indeed, the risks arising from price volatility and uncertainty

regarding future profitability in such funds do not necessarily constitute *gharar*; rather, they represent "market risk," which may be mitigated through disclosure and investor awareness. The same approach can be implemented in cryptocurrency exchanges through precise disclosure of transaction conditions and fees (Habibian Naghibi et al., 2020).

2.1.2. The Rule of Preservation of the System and Cryptocurrency Mining and Sale

The principle of "preservation of the system" constitutes one of the fundamental rules of Islamic jurisprudence and, beyond primary legal rulings, plays a strategic role in explaining the public interest of Islamic society; in situations of conflict, it may qualify or restrict primary rules. In the field of cryptocurrencies, the emergence of risks such as money laundering, tax evasion, disruption of economic security, and facilitation of organized crime directly threatens economic integrity and public order (Norouzi et al., 2021). Accordingly, the jurisprudential approach to cryptocurrencies is not limited to the contractual nature of sale. Rather, on the basis of the rule requiring "preservation of the system," preventing potentially harmful economic institutions from entering the economic order until the soundness of their operation has been established may be regarded not only as permissible but as necessary for safeguarding the higher interests of Islamic society. With respect to the religious justification for payment in exchange for necessary services, jurisprudential doctrine, particularly views associated with Sheikh Ansari and Imam Khomeini, adopts a functional approach. In discussions of prohibited earnings and leasing, although jurists generally recognize the prohibition against receiving remuneration for the performance of certain obligatory acts (Al-Hilli, 1988), exceptions have been acknowledged where the functioning of the social order and the satisfaction of essential public needs, such as medicine and vital industries, depend upon such services, thereby permitting remuneration. This secondary ruling rests upon a reciprocal relationship: on the one hand, the specialist is obligated to provide the service so that the social order is not disrupted; on the other hand, the beneficiary is required to pay compensation so that incentives for continued provision remain intact. This jurisprudential logic demonstrates that, in economic institution-building, the continuity of activities depends upon a lawful framework of financial exchange that secures the interests of the parties—something that is absent in a non-transparent and unregulated cryptocurrency environment. From the perspective of governmental jurisprudence, the legitimacy of cryptocurrency transactions cannot be assessed independently of the "legal order" governing the national economy. Rules such as "no harm," "respect for property," and "economic justice" require the state to prevent uncontrolled monetary policies and excessive capital flight. Until an effective statutory and supervisory framework has been established by the state to control the systemic risks associated with cryptocurrencies (Na'ini, 2003), transactions in this field may, because of their conflict with economic order and their potential to damage the financial integrity of the country, be considered devoid of religious legitimacy (Na'ini, 2003). Governmental jurisprudence therefore does not base restrictions upon the "abstract nature of money," but rather upon the "tangible effects on the national economy," thereby regarding the legal regulation and management of cryptocurrencies as a prerequisite for legitimizing such transactions.

2.1.3. The Rule of Public Interest and Cryptocurrency Mining and Sale

From the perspective of governmental-jurisprudential doctrine, the legitimacy of an emerging phenomenon within the monetary system of a country depends upon its conformity with general rules such as "no harm," "respect for property," and "destruction of property." Critics of a liberal approach toward cryptocurrencies argue that the state possesses inherent authority to "safeguard monetary stability"; consequently, any phenomenon or financial instrument capable of disrupting liquidity, facilitating capital flight, or impairing public rights lacks legal and religious legitimacy until the state has developed adequate supervisory and legislative tools for controlling such effects. Under this analysis, the boundary between "cyberspace" and the "real economy" is legally significant. If the use of cryptocurrencies remains confined to the abstract digital environment, it may not fall within prohibitory rules because it does not affect the broader financial order; however, once it enters the real economy, its inevitable systemic consequences may bring it within the scope of restrictive governmental rules (Mirzakhani, 2017). Regarding the position of "public interest" (*maslahah*) within the Islamic legal system, although classical jurisprudential writings rarely formulate public interest as an independent "jurisprudential rule" comparable to doctrines such as *la darar*, the transition toward "political and governmental jurisprudence" has transformed this concept into a "meta-rule" for governance of public affairs. "Public interest" in this sense is not merely supplementary to primary rules, but also provides a basis for

regulating state intervention in the cryptocurrency sector. Unlike rules such as hardship or necessity, which primarily perform a defensive or remedial function, the rule of public interest performs an affirmative and strategic function; thus, the establishment of social order and preservation of society's economic foundations take priority over the individual gains derived from cryptocurrency transactions. Accordingly, the "preservation of the public interest of the system" should be reconsidered as a central principle in the jurisprudential analysis of cryptocurrencies (Shariati, 2008). The proposition that preservation of the system possesses priority over the individual and collective interests of members of society means that disruption of the economic order disregards this broader public interest and cannot be equated with concepts such as "individual harm." Under this approach, cryptocurrency mining and exchange, in a regulatory vacuum and prior to the establishment of risk-control standards, may be prohibited under the general rule of public interest because of their potential conflict with collective welfare. Legitimation of this field therefore requires a transition from a "reactive" to an "institution-building" approach, under which the state defines a coherent legal order, minimizes systemic risks, and places the transactional environment at the service of the interests of the national economy (Alidoust, 2009). The concept of "corruption" or *mafsadah* stands in opposition to public interest. Just as preservation of the system is intertwined with the concept of public interest, disruption of the system is correspondingly connected with *mafsadah*. In other words, for the same reasons that preservation of the system must be considered obligatory in order to protect society, the public, and the Islamic system, disruption of that system must likewise be regarded as prohibited in order to prevent the harmful consequences resulting from the absence of order. The opposite aspect of the rule requiring preservation of the system—namely, "the prohibition of disrupting the system"—may therefore be separately examined. It is important to observe that if preservation of the system is regarded as intrinsically intertwined with public interest, it follows that the obligation to preserve the system, when in conflict with other primary or secondary rules, including secondary rules themselves enacted on grounds of public interest, takes precedence. Public interest in preservation of the system is itself a secondary title generating a secondary religious ruling; however, because it has a public and social dimension, it enjoys priority over other interests. One theorist has observed that a criterion for preferring one interest over another is the direct relationship of that interest with social systems and governmental authority. Accordingly, preservation of the human social order and of the authority that protects such order may take precedence over numerous other interests, including cryptocurrency sale and mining, because it is through protection of this interest that the general purposes of Islamic law and the divine objectives of creation and legislation are realized (Alidoust, 2009). Al-Kulayni further transmits a significant narration from Imam al-Baqir that is particularly relevant in this context. The questioner asked Imam al-Baqir about his occupation of transporting weapons to Syria and selling them there, explaining that after recognizing the religious authority of the Imam, he had become reluctant to sell weapons to the enemies of God. The Imam replied that he should continue transporting weapons to them because God would use the Syrians to repel the common enemy, namely the Romans, but that if war were to arise between the Imam's community and the Syrians, anyone supplying the latter with weapons would be regarded as acting impermissibly (Al-Kulayni, 1986). This narration illustrates the extent to which preservation of the Islamic community and its political order was considered significant by Imam al-Baqir, such that cooperation with the Syrians, despite their opposition to the Household of the Prophet, was permitted in order to repel external enemies. This reflects the proposition that collective and public interest—and, more precisely, preservation of the Islamic social and governmental order—may take precedence over the interest in refraining from assisting opponents of the Household of the Prophet and the Shi'a community (Malek Afzali Ardakani, 2018).

2.2. Legal Foundations

2.2.1. Cryptocurrency Sale and Mining on the Basis of the Aleatory Nature of the Contract

The principal basis upon which critics oppose cryptocurrency sale and mining is the rule requiring the "definite determination of the subject matter of the transaction." According to this view, because at the time of contracting the constituent elements of the cryptocurrency—particularly in mining, which is based on computational probabilities—are subject to uncertainty and the object sold or the subject matter of the obligation is not precisely determined, such transactions fall within the category of "*gharar*-based contracts" and are void because of "ignorance materially affecting the contract." [In fact, the "subject matter of the transaction," on the one hand, and the "subject matter of the obligation or transfer of ownership," on the

other, are distinct concepts. The subject matter of the transaction refers to the "totality of legal transformations for the occurrence of which the parties have expressed mutual consent." For example, "transfer of ownership of the object sold in exchange for the price" constitutes the subject matter of a contract of sale. By contrast, the subject matter of the obligation or transfer of ownership concerns the duties that arise for the parties as a consequence of their agreement. The subject matter of an obligation may consist of performing an act, refraining from an act, or delivering property. Thus, for example, the object sold and the price in a contract of sale constitute the objects of transfer, while performance in a *ju'alah* contract constitutes the subject matter of the obligation. In bilateral contracts, the subject matter of the contract performs both a "constitutive" and a "coordinating" function. In other words, the subject matter in reciprocal contracts consists in the exchange between two counter-performances, which constitutes the transaction, and the correspondence between them, which coordinates it, whereas the object of each party's individual obligation or transfer remains distinct (Katouzian, 2004). Nevertheless, the expressions "subject matter of the transaction" and "subject matter of the obligation or transfer" have not only been used interchangeably by the legislature, including from Article 214 of the Civil Code onward, but this terminological flexibility also appears in legal scholarship. Accordingly, in the present study, where the expression "subject matter of the transaction" is used, it may, where appropriate, refer to the subject matter of the obligation or transfer.] This theory, grounded in well-established jurisprudential and legal principles, relies not only upon religious sources but also upon rational considerations, because the absence of transparency and determinacy places the parties in a condition of absolute uncertainty, thereby creating the possibility of dispute and frustrating contractual objectives. In the Iranian legal system, this established principle is explicitly emphasized in the general rules of contracts and in nominate contracts (Al-Hilli, 1992). In analyzing this concept, a precise distinction must be made between the requirements that the subject matter be "known" and "determinate." Being "known" concerns the specification of the type, characteristics, and quantity of the object sold, as contemplated by Article 342 of the Civil Code, whereas being "determinate," as reflected in Article 472 and Article 190(3) of the Civil Code, means that the subject matter must not remain uncertain between two or more alternatives. Unlike *ju'alah*, in which, pursuant to Article 564 of the Civil Code, the required act may be ambiguous or indeterminate, other contracts transferring ownership, including sale, require sufficient certainty and determinacy, the absence of which may result in invalidity. From this perspective, cryptocurrencies, because of their alleged incompatibility with these criteria of determinacy, may be classified among aleatory transactions (Mahmoudzadeh, 2013). The fundamental jurisprudential basis for this position is the Prophetic tradition prohibiting *gharar*, which has become widely recognized in both Shi'a and Sunni jurisprudential literature as the theoretical foundation of the requirement of definiteness in transactions. Concerning the jurisprudential interpretation of this tradition, an extensive debate exists among jurists, including Sheikh al-Tusi (Al-Tusi, 1993) and Sheikh Ansari, as to whether the term "sale" in the formulation "the Prophet prohibited the sale of *gharar*" constitutes a restrictive qualification or whether the original formulation was "the Prophet prohibited *gharar*," such that its general meaning extends to every *gharar*-based transaction. The author of *Jawahir* and Sheikh Ansari, emphasizing the widespread recognition and accepted authority of this tradition, regard it as decisive evidence for the invalidity of transactions in which the subject matter of the obligation has not been precisely and transparently determined before conclusion of the contract. The logical consequence of this reasoning is the classification of cryptocurrency-related transactions as "aleatory contracts." According to proponents of this theory, the nature of cryptocurrencies is such that the parties' "knowledge" of the subject matter of the transaction—the price and the consideration—at the moment of offer and acceptance is affected by an informational gap, and this gap constitutes the prohibited *gharar*. Consequently, both from the perspective of jurisprudential principles of legal inference and from that of the mandatory rules of civil law, cryptocurrency sale and mining are regarded as unstable and illegitimate because the elements required for definite determination are allegedly absent (Mahmoudzadeh, 2013).

2.2.2. Cryptocurrency Sale and Mining on the Basis of the Principle Prohibiting Unjust Enrichment

The principle prohibiting unjust enrichment may be explained in both a broad sense, encompassing undue performance and unlawful benefit, and a narrow sense, referring to the enrichment of one person at the expense of another (Rahimi, 2011). As a fundamental legal rule, this principle is supported by religious authorities such as verse 29 of Surah al-Nisa, which prohibits the wrongful consumption of property, as well as well-known jurisprudential doctrines such as the rule of *'ala al-yad* and the

rule of "no harm" (Katouzian, 1996). In the Iranian legal system, Article 319 of the Commercial Code and several provisions of the Civil Code reflect this approach. The legislature's objective in adopting such provisions is to block avenues of illegitimate enrichment within economic exchanges. In the context of cryptocurrency sale and mining, critics rely upon this principle to argue that because the subject matter of the transaction is not definitely determined at the time of contracting, a substantial possibility exists that one party may become enriched at the expense of the other. This view connects the rationale underlying Articles 190, 216, and 308 of the Civil Code to the principle prohibiting unjust enrichment (Darabpour, 1998); in other words, according to this position, the absence of the requirement that cryptocurrencies be "known and determinate" necessarily creates the possibility of unjust enrichment. Under this analysis, precise determination of the object sold is not merely a formal requirement, but an essential mechanism for achieving economic justice and preventing wealth accumulation based upon ambiguity. Nevertheless, the essential element of unjust enrichment is the absence of a lawful basis and mutual consent. Where one person's enrichment at another's expense results from the informed agreement and mutual consent of the parties, the situation falls outside the scope of the prohibition against unjust enrichment. For example, in an insurance contract, the non-occurrence of the insured event may benefit the insurer while economically disadvantaging the insured; however, because this possibility was contemplated and accepted by the parties at the time of contracting, such enrichment is regarded as lawful and justified. Mutual consent thus supplies a valid legal basis and legitimizes the element of uncertainty from a legal perspective (Katouzian, 1996). Accordingly, relying upon the principle prohibiting unjust enrichment as a basis for the absolute invalidation of cryptocurrency sale and mining within aleatory contracts is problematic. Just as uncertainty concerning the subject matter does not invalidate an insurance contract, probabilistic characteristics in cryptocurrency-related transactions do not necessarily render them unlawful. The theory requiring definite determination of the subject matter therefore has only limited application to aleatory contracts, and not every form of uncertainty in cryptocurrency transactions can be classified as wrongful consumption of another's property through the doctrine of unjust enrichment (Mahmoudzadeh, 2013).

2.2.3. Cryptocurrency Sale and Mining on the Basis of the Principle of Precision in Performance and Prevention of Disputes

The principle of precision and soundness in performance, which may be inferred from the teachings of the Qur'an, including verse 282 of Surah al-Baqarah, and from jurisprudential writings, emphasizes accuracy, determinacy, and the avoidance of negligence in commercial relationships in order to prevent disputes and conflicts (Rafiei, 1999). The Iranian legislature has likewise pursued this objective through the Civil Code by seeking to avert probable harm and prevent disputes arising from ambiguity concerning the subject matter of a transaction (Al-Ansari, 1994). Nevertheless, in aleatory contracts, including cryptocurrency sale and mining, although the amount or actual realization of the counter-performance may not be determined with absolute certainty, the parties agree upon criteria according to which the subject matter will subsequently be determined. Consequently, the likelihood of disputes arising during performance may be substantially reduced. Where such criteria are respected, the principle of precision is not violated, and the theory requiring definite determination of the subject matter loses much of its legal function in this field (Mahmoudzadeh, 2013).

2.2.4. Cryptocurrency Sale and Mining on the Basis of Public Order

The purpose of the legislature in adopting provisions such as Articles 190 and 216 of the Civil Code is to regulate transactional relationships and safeguard economic public order by requiring precise determination of the subject matter of transactions and thereby preventing disputes, conflicts, and ultimately the wrongful appropriation of property. Ambiguity in contractual counter-performances may disturb social justice and public order, which explains why the legislature has attached the sanction of invalidity to failure to satisfy the required level of determinacy. Within this framework, rules governing cryptocurrency sale and mining, which function as mechanisms for the distribution of wealth within society, may be characterized as mandatory rules whose principal functions are to prevent unjust enrichment and secure stability in financial interactions. Nevertheless, in the context of aleatory contracts, the absence of absolute determination of the subject matter does not necessarily violate public order. On the contrary, given economic necessities and the increasing prevalence of such contracts, a degree of flexibility may contribute to the development of public order and the growth of innovative markets. In cryptocurrency sale and mining, where uncertainty either arises from the inherent nature of the contract or serves the purposes

of mitigating loss and facilitating exchanges, flexibility in determining the subject matter does not necessarily lead to disorder. Accordingly, because lack of absolute determinacy in such circumstances does not undermine the foundations of public order, the principle requiring definite determination should not be regarded as universally applicable to cryptocurrency sale and mining, and such contracts need not be considered invalid merely on this basis (Mahmoudzadeh, 2013).

2.2.5. Cryptocurrency Sale and Mining on the Basis of the Practice of Rational Persons

The practice of rational persons (*sirat al-'uqala*), meaning the established conduct of reasonable members of society and customary practice regarding social phenomena, including cryptocurrency sale and mining transactions, constitutes one of the grounds for recognizing the authority of custom in Islamic jurisprudence and law. According to statements attributed to Imam Khomeini and a number of prominent jurists, any rational practice widely accepted among reasonable persons, whether or not it can be directly traced to the period of the Infallible Imam, may possess legal authority regarding the relevant subject matter and may serve as a basis for resolving many social issues (Feiz, 2006). The authority of such practice is also expressly reflected in positive law. Article 220 of the Iranian Civil Code, Article 9 of the 1980 United Nations Convention on Contracts for the International Sale of Goods (Safaei et al., 2011), and Article 1:105 of the Principles of European Contract Law recognize the binding nature of relevant commercial usages, even in certain circumstances where the parties are not actually aware of them (Shaarian & Torabi, 2010). Although the practice of rational persons would ordinarily favor definite determination of the subject matter in order to clarify contractual outcomes, contemporary economic and commercial developments have generated contracts such as construction participation agreements, engineering, procurement, and construction (EPC) contracts, and cryptocurrency sale and mining arrangements in which precise determination of the subject matter at the time of contracting may either be impossible or expose the parties to probable losses. Given that each category of transaction is governed by its own particular commercial custom, and that sound commercial practice permits the subject matter in such contracts to be determined in the future on the basis of fixed and mutually agreed criteria, it may be argued that, on the one hand, society has a substantial need for such contracts and, on the other, economic development favors their recognition. Consequently, the practice of rational persons does not reject the absence of definite determination in aleatory contracts, particularly where prohibition would obstruct economic development and prove less efficient than reliance upon agreed criteria. Thus, the practice of rational persons, while constituting one of the theoretical foundations underlying the requirement of definite determination, is not incompatible with the absence of absolute determinacy in cryptocurrency sale and mining and may support the validity and binding force of such contracts from the perspective of customary legal authority (Mahmoudzadeh, 2013).

3. European Union

Given the transnational, borderless nature of cryptocurrencies, the anonymity that may characterize their use, and their potential accessibility for criminal activities such as money laundering and terrorist financing, cryptocurrencies have created numerous challenges at both international and national levels. Institutions such as the Financial Action Task Force (FATF), the G20, the Bank for International Settlements, and the European Union have therefore sought to formulate practical regulatory frameworks capable of reducing the adverse effects associated with cryptocurrencies while facilitating their lawful use in commercial transactions (Feizi Chekab & Sadeghi, 2021). In recent years, the European Union has taken a major step toward establishing an integrated legal framework for cryptocurrency transactions through the adoption of the pioneering Markets in Crypto-Assets Regulation (MiCA). Unlike the fragmented approaches previously observed across Member States, MiCA seeks to establish a “Digital Single Market” in which financial stability and investor protection are accorded priority. The Regulation does not characterize cryptocurrencies as official currencies; rather, it classifies them as “crypto-assets” and distinguishes among utility tokens, asset-referenced tokens, and electronic money tokens, thereby providing a legal framework for their issuance and trading. This approach differs fundamentally from prohibitive or entirely laissez-faire approaches adopted in certain other jurisdictions and has transformed crypto-assets into a formally regulated component of the European financial ecosystem. In the field of purchase and sale, the European Union places particular emphasis on identity verification and anti-money-laundering requirements. Under the rules on transfers of funds applied alongside MiCA, crypto-asset service providers (CASPs) are required to collect and transmit information concerning the originator and beneficiary of transactions, broadly

resembling the Travel Rule applied in traditional banking systems. This approach demonstrates the European Union's intention to bridge regulatory gaps between traditional finance and decentralized finance and to establish financial transparency as a foundation of trust within cryptocurrency markets. Cryptocurrency mining in the European Union, unlike trading, is directly influenced by the European Green Deal. The Union's approach in this area is highly critical from an environmental perspective. Given the substantial energy consumption associated with proof-of-work algorithms such as Bitcoin mining, European institutions, including the European Securities and Markets Authority and the European Central Bank, have repeatedly expressed concerns regarding the sustainability of such processes. Although the European Union has not imposed a complete prohibition on cryptocurrency mining, regulatory pressure on miners to disclose environmental impacts has increased, and discussions have continued concerning restrictions on the use of fossil-fuel-based energy for mining operations.

A comparison between cryptocurrency trading and mining from the perspective of the "nature of contracts" demonstrates that, within the European Union, purchase and sale generally constitute a contractual relationship between a service provider and a customer and therefore fall within the protection afforded by consumer law. By contrast, cryptocurrency mining is treated principally as an industrial activity governed by energy, environmental, and industrial-business regulations. This duality means that, while traders benefit from relatively strict legal safeguards designed to prevent market abuse, miners face regulatory challenges related to their "carbon footprint," which has itself become an obstacle to the development of mining infrastructure in certain Member States.

With respect to civil and criminal liability, the European Union imposes high standards upon cryptocurrency trading platforms. MiCA expressly addresses the responsibilities of service providers regarding clients' assets in circumstances such as cyberattacks, operational failures, or insolvency. In the mining sector, by contrast, legal responsibilities are primarily associated with compliance with technical and environmental standards. The distinction is that, in cryptocurrency trading, the principal risk is borne by a "third party," namely the investor, whereas in mining, the principal external risk is borne by "the public," particularly through energy consumption and environmental impacts. Accordingly, European law tends toward "prudential supervision" in the field of cryptocurrency trading and toward "environmental supervision" in the field of mining.

An important feature of the European Union's approach concerns "stablecoins." Because stablecoins constitute major intermediary instruments in cryptocurrency trading, MiCA imposes stringent requirements upon their issuers, including reserve requirements and authorization-related obligations (Brody, 2021). This indicates that the European Union effectively subjects certain stablecoins to a legal regime resembling that applicable to "electronic money," thereby connecting them to the monetary objectives of the European Central Bank (ECB). Miners, by contrast, although they participate in the generation of tokens, frequently operate in relation to assets such as Bitcoin, which are not stablecoins, and are therefore generally outside these specific monetary rules, although they remain subject to broader financial and tax regulations.

From the perspective of tax law, the European Union allows Member States a degree of discretion, although it is moving toward a more harmonized framework for crypto-asset taxation through DAC8. In the field of trading, profits derived from transactions may be subject to capital gains taxation, the applicable rules varying across Member States. Mining presents more complex tax questions: some countries treat mining as a commercial income-generating activity subject to income taxation, whereas others may classify particular aspects as the production or supply of assets for tax purposes. This lack of harmonization in mining has contributed to "regulatory arbitrage," whereby miners may relocate toward jurisdictions offering more favorable tax treatment. The impact of "decentralization" upon the legal foundations of the European Union also deserves attention. Whereas cryptocurrency transactions conducted through centralized exchanges (CEXs) fall squarely within the regulatory perimeter of MiCA, decentralized finance (DeFi) protocols continue to occupy a comparatively uncertain legal space (Tabatabaei & Hosseini, 2026). The European Union continues to examine the extent to which computer code and smart contracts may be attributed legal responsibility for juridical acts. Miners, particularly within proof-of-work networks, form part of the decentralized architecture of such systems; therefore, European regulation tends to focus less upon the abstract "mining protocol" itself and more upon identifiable "physical mining operators" over whom effective regulatory authority may be exercised. At the theoretical level, the European Union seeks, in relation to trading, to promote the "development of blockchain technology" in order to facilitate faster and less costly financial transactions. In mining, however, the predominant concern is the "protection of public resources." This tension between digital innovation and physical sustainability has resulted in an approach under which the Union is comparatively receptive to the cryptocurrency trading industry while remaining more restrictive toward energy-intensive mining infrastructure. This contrast constitutes one of the most significant comparative

foundations of cryptocurrency law within the European legal order. Ultimately, the European Union, through MiCA and related regulations, has developed a comparatively "ordered" model situated between more market-oriented approaches and outright prohibition. Within this model, cryptocurrency purchase and sale are characterized as legitimate but regulated economic activities accompanied by substantial consumer-protection safeguards, whereas cryptocurrency mining faces structural environmental constraints that render it a more conditional activity. This comparative framework demonstrates that the European Union has effectively developed distinct legal philosophies for these two sectors: one centered on "financial protection" and the other on "environmental policymaking."

4. United States

In the United States, there has historically been no single comprehensive federal statute directly equivalent to MiCA, and the regulatory environment surrounding cryptocurrencies has substantially developed through "regulation by enforcement." Federal agencies, particularly the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC), have sought to apply pre-existing statutory frameworks, including twentieth-century securities and commodities legislation, to the emerging cryptocurrency environment (Ghamami & Alipour, 2022). This fragmented statutory structure has meant that the legal characterization of cryptocurrency transactions has often been shaped not solely by explicit legislative definitions but also by administrative interpretation and judicial decisions, with different agencies asserting jurisdiction over different segments of the market (Ghamami & Alipour, 2022). A central legal issue concerning cryptocurrency trading has been the application of the "Howey Test," which is used in U.S. securities law to determine whether a particular arrangement constitutes an "investment contract." Where a crypto-asset or transaction satisfies the relevant securities-law criteria, its issuer or intermediary may become subject to registration and other regulatory requirements. This interpretive approach has exposed many cryptocurrency exchanges and token issuers to substantial legal disputes concerning whether particular digital assets constitute securities. At the same time, the CFTC has treated major crypto-assets such as Bitcoin as commodities for purposes falling within its statutory jurisdiction, particularly in relation to derivatives and commodity markets. In the field of cryptocurrency purchase and sale, the Financial Crimes Enforcement Network (FinCEN), under the Bank Secrecy Act framework, treats many cryptocurrency exchanges and intermediaries as "money services businesses." Consequently, cryptocurrency service providers operating in the United States are generally subject to customer-identification and anti-money-laundering obligations, including know-your-customer (KYC) requirements and suspicious-activity reporting. These obligations subject centralized cryptocurrency exchanges to extensive transparency and compliance duties, in contrast with decentralized mining protocols in which direct identity verification at the protocol level may be practically impossible. For federal tax purposes, the Internal Revenue Service (IRS) has generally treated cryptocurrency as property rather than sovereign currency. This characterization has significant consequences because disposals or exchanges of cryptocurrency may trigger taxable gains or losses. Compared with approaches seeking closer integration between digital assets and traditional monetary or banking categories, this property-based classification may impose substantial recordkeeping obligations upon individual users because taxable consequences may arise upon disposal or exchange. Cryptocurrency mining in the United States has developed along a path materially different from that governing centralized exchanges (Palest, 2003). Whereas trading platforms have historically faced substantial federal regulatory scrutiny, mining has often been shaped by state-level energy, business, environmental, and economic-development policies. States such as Texas and Wyoming have adopted comparatively supportive approaches toward certain blockchain and digital-asset activities and have sought to attract investment associated with mining and related infrastructure. This industrial-policy approach differs from the more environmentally restrictive tendencies often associated with European regulation of energy-intensive mining.

Another significant characteristic of the United States is "legal federalism." Whereas the European Union has pursued substantial harmonization through MiCA, U.S. state-level regulation remains heterogeneous. New York, for example, has adopted the "BitLicense" framework applicable to certain virtual-currency businesses, while other states have pursued more facilitative approaches in an effort to attract digital-asset and mining enterprises. This lack of uniformity creates opportunities for "regulatory arbitrage" within the United States, as exchanges and mining companies may structure or relocate aspects of their operations in response to differences among state legal regimes. Such internal regulatory variation is generally less pronounced within the increasingly harmonized European crypto-asset market. From the perspective of civil liability, the U.S.

legal system places substantial emphasis on private litigation, including class actions and federal securities litigation. Where exchanges collapse or token values decline because of alleged misrepresentation, mismanagement, or unlawful conduct, affected investors may seek remedies through the courts in addition to administrative enforcement (Ghamami & Alipour, 2022). This litigation-centered environment means that digital-asset firms must consider not only regulatory compliance but also exposure to private claims and collective litigation. In the energy context, cryptocurrency miners in the United States face carbon-related and local environmental pressures, but no uniform nationwide prohibition historically comparable to outright bans has governed mining as such. Competition for renewable energy resources and scrutiny of electricity consumption have therefore become important aspects of the sector. Some large mining companies have sought to rely upon otherwise wasted energy sources, such as flared natural gas, or renewable-energy inputs in order to reduce environmental criticism and comply with applicable environmental rules. Cryptocurrency mining in the United States is therefore generally treated not inherently as a criminal or prohibited activity, but as an energy-intensive industrial activity subject to applicable federal, state, and local regulatory regimes. At the theoretical level, the U.S. legal tradition has often accorded considerable weight to innovation, private ordering, and freedom of contract, subject to statutory prohibitions and regulatory enforcement. This helps explain why, despite extensive regulatory disputes concerning the status of particular tokens and exchanges, the United States has remained a major jurisdiction for crypto-related financial products and market activity. The U.S. system has therefore historically differed from the European Union's more comprehensive ex ante legislative model by relying to a greater extent upon a reactive combination of agency interpretation, enforcement, litigation, and state-level regulation. As a result, the legal boundaries between cryptocurrency trading and mining have often developed through overlapping regulatory jurisdictions and judicial decisions rather than through a single unified statutory definition. Whereas the European Union has sought to construct a relatively comprehensive legal "home" for crypto-assets, the United States has more frequently attempted to accommodate them within existing institutional and statutory structures, contributing to continuing legal uncertainty in trading while allowing substantial state-level variation in the industrial development of mining.

5. Conclusion

The legal approaches adopted by Iran, the European Union, and the United States toward cryptocurrencies reflect their distinct philosophical foundations and institutional legal structures. Whereas the European Union has pursued a "legislation-centered and forward-looking" approach through the establishment of a comprehensive framework such as MiCA in order to harmonize the market, the United States has historically relied more heavily upon a "precedent-oriented and adjudicative approach," accompanied by interpretive disputes among regulatory agencies such as the SEC and CFTC regarding the application of traditional securities and commodities frameworks to crypto-assets. Iran, meanwhile, has adopted a comparatively "pragmatic and economically driven" approach, oscillating between the economic benefits of mining as a foreign-exchange-generating industrial activity and persistent legal uncertainty concerning retail financial exchanges.

The European Union, by relying upon the principles of "market integration" and "consumer protection," has succeeded in bringing crypto-assets from the regulatory margins into the formal financial framework. From the Union's perspective, crypto-assets are not inherently a threat to public order, but innovative financial instruments requiring strict yet transparent regulation. A fundamental feature of this model is that, rather than invalidating transactions solely because of uncertainty, the European approach relies upon mechanisms of information disclosure, including white papers and standardized transparency requirements, in order to address "ignorance concerning the subject matter of the transaction" in a modern and systemic manner. This approach may be understood as a contemporary development of the principle of precision and reliability in contractual dealings within the digital environment.

The United States, despite its prominent role in innovative financial products such as crypto-related exchange-traded funds, has historically faced significant legal uncertainty concerning the classification of digital assets. The absence of a single comprehensive federal legislative framework has often left the legal position of exchanges, issuers, and other market actors dependent upon judicial interpretations and the jurisdictional positions of regulatory agencies. The U.S. experience demonstrates that a legal system relying substantially upon adjudication and existing statutory categories may encounter periods of uncertainty when confronting decentralized technologies. Nevertheless, the emphasis placed upon contractual freedom and

innovation has prevented the wholesale exclusion of crypto-assets and has allowed substantial mining and blockchain-related activity to develop at the state level.

Iran presents a distinctive model that is influenced not only by classical legal doctrines but also by governmental, monetary, energy, and foreign-exchange considerations. Cryptocurrency mining has been recognized as a permissible economic activity subject to licensing, demonstrating the adaptability of the practice of rational persons in recognizing technologically innovative activities as forms of "industry." In the sphere of cryptocurrency trading, however, the absence of explicit comprehensive legislation and the continued influence of restrictive interpretations concerning *gharar* and uncertainty in contractual counter-performances have prevented the full juridical organization of this market and have maintained a degree of legal uncertainty.

A comparative examination of these three legal systems reveals an emerging convergence around the recognition of technological reality. Each system has gradually confronted the practical limitations of attempting to invalidate cryptocurrency-related transactions merely because the subject matter differs from traditional forms of property or incorporates forms of economic uncertainty. Excessively restrictive approaches may drive capital and economic activity outside the regulated legal environment. The European Union has responded through comprehensive legislation, the United States through a combination of regulatory enforcement, judicial development, and institutional adaptation, and Iran through administrative recognition of mining and gradual regulatory intervention. In different ways, all three systems therefore seek to bring the phenomenon within a legal framework while capturing its potential economic benefits in areas such as taxation, energy, investment, and financial transactions.

Ultimately, the Iranian legal system would benefit from adopting a model of "dynamic adaptation" comparable in certain respects to the European Union's approach. Rather than concentrating predominantly on the invalidity of transactions because of price uncertainty at the moment of contracting, regulation could shift toward "platform validation," "functional transparency," disclosure requirements, and legally defined standards of accountability. Smart contracts and programmable code increasingly function as new forms of commercial practice through which modern market participants express and execute contractual intent. For Iranian law to remain responsive to global technological developments, it requires a transition from excessively restrictive interpretations of traditional civil-law doctrines toward rules that preserve public order and commutative justice while simultaneously creating a legally secure environment for the rational development of the digital economy.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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References

Al-Amili, M. i. M. (1896). *Al-Qawa'id wa al-Fawa'id*. Society of Seminary Teachers of Qom.
Al-Ansari, S. M. (1994). *Al-Makasib* (Vol. 2). Majma' al-Fikr al-Islami.
Al-Hilli, H. i. Y. (1992). *Mukhtalaf al-Shi'ah* (Vol. 5). Islamic Publications Office Affiliated with the Society of Seminary Teachers of Qom.
Al-Hilli, H. i. Y. i. M. (1988). *Al-Alfayn*. Dar al-Hijrah.
Al-Jawhari, I. i. H. (1989). *Al-Sihah* (Vol. 2). Dar al-Ilm lil-Malayin.
Al-Kasani, A. B. i. M. (1974). *Bada'i al-Sana'i* (Vol. 5). Dar al-Kitab.
Al-Kulayni, A. J. f. M. i. Y. q. (1986). *Al-Kafi* (Vol. 5). Dar al-Kutub al-Islamiyyah.
Al-Najafi, M. H. (2001). *Tahrir al-Majallah* (Vol. 1). Al-Maktabah al-Murtadawiyyah.
Al-Naraqi, M. A. (1996). *Awa'id al-Ayyam*. Publications of the Qom Seminary Propagation Office.

Al-Sarakhsi, S. a.-D. M. i. A. (2016). *Usul al-Sarakhsi* (Vol. 13). Dar al-Ma'rifah.
Al-Tusi, M. i. J. f. (1993). *Al-Khilaf* (Vol. 3). Islamic Publications Office Affiliated with the Society of Seminary Teachers of Qom.
Al-Zabidi, S. M. M. (1993). *Taj al-Arus min Jawahir al-Qamus*. Dar al-Fikr for Printing, Publishing and Distribution.
Alidoust, A. (2009). *Jurisprudence and Expediency*. Research Institute for Islamic Culture and Thought Publications.
Azarnoush, A. (2012). *Contemporary Arabic-Persian Dictionary*. Nashr-e Ney.
Brody, R. (2021). *Cryptocurrency: Compliance and Controls*.
Darabpour, M. (1998). Floating Price. *Legal Research Journal*(21-22).
Feiz, A. (2006). *Foundations of Jurisprudence and Principles*. University of Tehran Press.
Feizi Chekab, G. N., & Sadeghi, S. S. (2021). Legal Examination of Cryptocurrency in the Regulatory Frameworks of Iran and the European Union. *Modern Banking Studies*, *3*(11).
Ghamami, S. M. M., & Alipour, M. R. (2022). A Comparative Study of Approaches to Cryptocurrencies in the Legal Systems of Iran and the United States. *29*(21).
Habibian Naghibi, M., Asadian Lalimi, M., & Zahmatkesh, M. A. (2020). Examining the Challenge of Gharar in Transactions with Cryptocurrencies: The Case of Bitcoin. International Conference on Jurisprudence, Law, and Religious Research,
Ibn Manzur, M. i. M. (1984). *Lisan al-Arab* (Vol. 5). Adab al-Hawzah.
Ibn Taymiyyah, A. (1951). *Al-Qawa'id al-Nuraniyyah*. Al-Matba'ah al-Sunnah al-Muhammadiyyah.
Jafari Langroudi, M. J. (2013). *Legal Terminology*. Mizan.
Katouzian, N. (1996). *Non-Contractual Obligations* (Vol. 2). University of Tehran Press.
Katouzian, N. (2004). *General Rules of Contracts* (Vol. 2). Enteshar Joint Stock Company.
Katouzian, N. (2009). *General Rules of Contracts* (Vol. 1). Enteshar Joint Stock Company.
Mahmoudzadeh, K. (2013). *Aleatory Contracts in Iranian and Egyptian Law* Allameh Tabataba'i University].
Malek Afzali Ardakani, M. (2018). *The Rule of Preservation of the System*. Research Institute for Islamic Culture and Thought Publications.
Mirzakhani, R. (2017). *Bitcoin and the Financial-Jurisprudential Nature of Virtual Money*.
Na'ini, M. H. (2003). *Tanbih al-Ummah wa Tanzih al-Millah* (Vol. 2). Bustan-e Ketab.
Norouzi, M., Ahmadi, A., & Asadi, H. (2021). Cryptocurrencies in the Light of Jurisprudence and International Law. *Medical Law Journal*.
Palest, G. (2003). *Democracy and Regulation*. Pluto Press.
Rafiei, M. T. (1999). *A Comparative Study of Gharar in the Subject Matter of Transactions*. Center for Islamic Studies and Research.
Rahimi, H. (2011). *Unjust Enrichment: A Comparative Study*. Enteshar Joint Stock Company.
Safaei, S. H., Kazemi, M., Adel, M., & Mirzanejad, A. (2011). *International Sales Law: Examination of the 1980 Convention on Contracts for the International Sale of Goods with Comparative Study in Iranian, French, English, and United States Law*. University of Tehran Press.
Seyah, A. (2008). *Comprehensive Modern Dictionary* (Vol. 2). Nashr-e Islam.
Shaarian, E., & Torabi, E. (2010). *Principles of European Contract Law and Iranian Law: A Comparative Study*. Forouzesh Publications.
Shahidi, M. (2003). *Formation of Contracts and Obligations* (Vol. 1). Majd Publications.
Shariati, R. (2008). *Rules of Political Jurisprudence*. Research Institute for Islamic Culture and Thought.
Tabatabaei, S. A., & Hosseini, S. A. (2026). Approaches of the Legal Systems of the European Union, United States, and Iran to Regulation of Cryptocurrency Exchanges. *Law of Emerging Technologies*, *7*(13).
Vahdati Shabiri, S. H. (2000). *Uncertainty of the Subject Matter of a Transaction*. Center for Islamic Studies and Research.