

The Role of Emerging Technologies in Enhancing Contractual Security: A Comparative Study of the Iranian and English Legal Systems

Mohammad Ali. Dehghan Dehnavi¹, Ghazaleh. Kabirabadi^{2*}, Mohammad. Reza Fallah³

¹ Department of Law, Ya.C., Islamic Azad University, Yazd, Iran

² Assistant Professor, Department of Law, Ya.C., Islamic Azad University, Yazd, Iran

³ Associate Professor, Department of Law, Faculty of Humanities, Shahed University, Tehran, Iran

* Corresponding author email address: Ghazaleh.kabirabadi@iau.ac.ir

Received: 2026-03-24

Revised: 2026-06-17

Accepted: 2026-06-23

Initial Publish: 2026-06-24

Final Publish: 2027-05-01

EDITOR:

Eman Shenouda^{ID}

Associate Professor, Department of Psychology, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran. Email: ens01@fayoum.edu.eg

REVIEWER 1:

Pınar Reisoğlu^{ID}

Faculty of Social Sciences, Recep Tayyip Erdogan University, Rize, Turkey. Email: pinarrisoglu@erdogan.edu.tr

REVIEWER 2:

Mohammadbagher. Jafari^{ID}

Department of Sociology of Culture, Istanbul, Türkiye. Email: mbjafari@kmanresce.ca

1. Round 1

1.1. Reviewer 1

Reviewer:

In the second paragraph of the Introduction, the article states that “in Iranian law, although the term contractual security has not been explicitly used in statutory texts,” several doctrines implicitly reflect this concept. This claim is important, but it requires greater doctrinal substantiation. The manuscript should specify which provisions of the Iranian Civil Code, especially Articles 10, 219, 223, and related provisions on validity and obligation, support this implicit acceptance. Without such statutory anchoring, the argument risks remaining too general. The author should also explain whether the implicit nature of contractual security in Iranian law creates interpretive flexibility or, conversely, doctrinal uncertainty.

In the paragraph beginning “With the emergence of modern technologies, particularly digital technologies,” the article lists several technological instruments, including electronic signatures, smart contracts, blockchain technology, electronic trading platforms, and online dispute resolution mechanisms. However, the manuscript treats these technologies as if they produce similar legal implications. These technologies differ substantially in their function, legal risk, evidentiary value, enforceability, and relationship to contract formation and performance. The author should either justify why they are grouped together under the category of “emerging technologies” or narrow the analytical focus more explicitly to smart contracts and blockchain, which appear to be the central concern of the article.

In the paragraph stating that “contractual security is not merely the result of technical progress; rather, it depends on the degree of alignment between these technologies and the legal system,” the manuscript raises a strong and original thesis. However, this thesis should be operationalized more clearly. The author should explain what “alignment” means in legal terms: statutory recognition, judicial enforceability, evidentiary admissibility, compatibility with existing doctrines of intention and

consent, availability of remedies, or institutional dispute resolution capacity. A clearer analytical framework at this point would make the subsequent comparison between Iranian and English law more systematic and less descriptive.

In the Introduction, the sentence “Courts and legal scholars, especially in recent years, have attempted to adapt traditional concepts of contract law to technological realities” should be revised to avoid conflating judicial practice and academic commentary. Courts and scholars operate through different mechanisms and have different authority. The article should distinguish between doctrinal developments generated through court decisions, soft-law reports, professional legal opinions, and academic scholarship. This distinction is particularly important because the manuscript later relies heavily on the contrast between English judicial flexibility and Iranian judicial caution.

In the paragraph discussing the Iranian legal system and the Electronic Commerce Law, the article states that “there is still no coherent framework for analyzing the legal effects of technologies such as blockchain and smart contracts.” This is a strong claim and should be elaborated with specific examples. The author should identify the precise legal uncertainties: whether they concern formation, attribution of intent, evidentiary validity, mistake, impossibility, modification, rescission, liability for coding errors, jurisdiction, or enforcement. A more detailed typology of these uncertainties would strengthen the problem statement and demonstrate the practical significance of the research.

In the methodology paragraph, the sentence “The research methodology of this article is descriptive-analytical with a comparative approach” is too brief for a comparative legal study. The author should explain the comparative method more precisely: whether the comparison is functional, doctrinal, institutional, or policy-oriented. The current statement does not specify why Iranian and English law are selected, which legal variables are compared, or how the comparative findings are derived. A more rigorous methodology section should define the comparative criteria, such as legal recognition, judicial enforceability, institutional responsiveness, risk allocation, and protection of legitimate expectations.

In Section 2-2(A), the discussion of party autonomy states that “party autonomy alone does not guarantee contractual security.” This is an important point, but the article should explain more concretely how excessive party autonomy may undermine contractual security in technology-based contracts. Examples could include unequal bargaining power in platform contracts, opaque algorithmic terms, code that parties do not fully understand, or automated execution that deprives weaker parties of meaningful remedial protection. Adding such examples would transform the discussion from a general doctrinal statement into a technology-sensitive legal analysis.

In Section 2-2(D), the sentence “If digital or smart contracts are constantly subjected to doubt regarding their validity, contractual security will be severely undermined” is persuasive, but the author should address the opposite risk as well: excessive reliance on the presumption of validity may validate contracts whose code contains defects, whose terms are not intelligible to one party, or whose automated execution produces inequitable results. The manuscript should therefore discuss the balance between validating technological contracts and preserving safeguards against mistake, fraud, unconscionability, illegality, and public-order concerns.

In Section 3-2, the article defines smart contracts as agreements “whose terms are formulated as computer code and whose execution occurs automatically without direct human intervention.” This definition should be refined because not all smart contracts are legally binding contracts, and not all legally binding smart contracts are fully self-executing. The author should distinguish between smart legal contracts, automated performance mechanisms, and blockchain-based code that may not itself constitute a contract. This distinction is crucial because the article’s core argument depends on the legal status of smart contracts rather than merely their technical operation.

Authors revised the manuscript and uploaded the document.

1.2. Reviewer 2

Reviewer:

In the sentence “Data analysis has been conducted qualitatively and is based on legal reasoning,” the phrase “legal reasoning” is too general. The manuscript should specify the form of legal reasoning used: doctrinal interpretation, comparative legal analysis, normative evaluation, institutional analysis, or policy analysis. Because the article aims to evaluate whether

emerging technologies enhance contractual security, the author should also clarify the evaluative criteria used to determine “enhancement.” Without these criteria, the findings may appear impressionistic rather than analytically derived.

In Section 1-1, the paragraph beginning “Research on contractual security and the impact of emerging technologies can be categorized into two broad streams” provides a helpful literature classification, but it remains too binary. The literature could be divided more precisely into doctrinal contract-law scholarship, law-and-technology scholarship, blockchain governance literature, comparative legal studies, and institutional analyses of legal security. This refinement would allow the author to situate the article more convincingly within the existing scholarship and to show exactly what gap the present research fills.

In the paragraph discussing Werbach and De Filippi, the manuscript contrasts “legal trust” and “technological trust,” but it does not sufficiently define either term. This is a central theoretical distinction for the article and should be developed more fully. Legal trust may refer to reliance on courts, remedies, enforceability, and institutional authority, whereas technological trust may refer to cryptographic verification, immutability, automated execution, and distributed consensus. The author should clarify whether these forms of trust are substitutes, complements, or layered mechanisms. This clarification would significantly improve the theoretical depth of the article.

In the paragraph beginning “In applied studies, legal analyses of smart contracts represent an important turning point,” the article states that smart contracts may possess legal validity “provided that intention, consideration, and certainty are established.” This formulation is appropriate for English law but should not be generalized without qualification. The author should explicitly state that consideration is a requirement specific to common law and does not have an equivalent doctrinal role in Iranian contract law. This distinction is essential to the comparative accuracy of the article and would prevent an unintended transplantation of English legal categories into Iranian law.

In Section 2, the paragraph defining contractual security as the ability of parties to make decisions with “reasonable assurance regarding the validity, stability, and enforceability of their contractual obligations” is conceptually strong, but it should be connected more directly to economic theories of transaction costs. Since the article later refers to transaction costs and economic trust, the author should integrate the economic dimension earlier in the theoretical framework. For example, the text could explain how uncertainty about validity, interpretation, or enforcement increases bargaining costs, monitoring costs, litigation risk, and reluctance to enter digital markets.

In Section 1-2, the sentence “With the advent of emerging technologies in the field of contract formation and performance, the classical components of contractual security have undergone revision” requires more detailed doctrinal analysis. The manuscript should distinguish how technology affects contract formation differently from contract performance. Electronic signatures and platforms mainly affect identification, attribution, and evidentiary reliability, whereas smart contracts and blockchain more directly affect performance, enforcement, modification, and remedies. This distinction would improve the legal precision of the theoretical section.

In the same section, the classification of contractual security into “traditional structural and legal components,” “institutional and executive components,” and “technology-oriented components” is one of the stronger analytical contributions of the manuscript. However, the classification should not be presented only at the end of the subsection. It should be introduced earlier and then used consistently throughout the comparative analysis and discussion of findings. At present, the later sections do not explicitly return to these three levels. Using this tripartite model as the main analytical framework would make the structure of the article more coherent.

Authors revised the manuscript and uploaded the document.

2. Revised

Editor’s decision: Accepted.

Editor in Chief’s decision: Accepted.