



IMPROVEMENT OF THE LEGAL FRAMEWORK FOR REGULATING INTERNATIONAL AND NATIONAL RELATIONS ARISING IN THE PROCESS OF DEVELOPMENT OF BLOCKCHAIN TECHNOLOGIES

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Article history:	Abstract:
Received: 30 th August 2025 Accepted: 24 th September 2025	This scientific article is devoted to a scientific analysis of the problems of regulating new legal relations arising at the international and national levels as a result of the rapid development of blockchain technologies (including crypto-assets, smart contracts, and DeFi). The main topic of the article is legal disputes arising from the decentralized and cross-border nature of the blockchain. Emphasis will also be placed on topics such as the jurisdiction of which state resolves disputes and how consumer rights are protected. The study examines the experience of Western Europe, the USA, and East Asian countries on this issue using various methods and compares it with the existing national legislative framework of the Republic of Uzbekistan.

Keywords: Blockchain, Crypto-assets, Smart contract, DeFi, Jurisdiction, Regulatory sand.

INTRODUCTION Blockchain technology, one of the most important inventions of the 21st century, has revolutionized not only the financial sphere through cryptocurrencies but also property rights, public services, and data security. Its main strength is the ability to record data transparently, unchangingly, and reliably, without the need for any central authority. However, this decentralized and especially cross-border nature of the blockchain creates a serious problem for international and national legal systems. Because law has always been connected with a certain national or regional jurisdiction (territory). Accordingly, various questions arise due to the transactions concluded on the Blockchain platform. For example: by the legislation of which state are these transactions regulated? Which government agency should be contacted if consumer rights are violated?

The main goal of the article is to critically analyze Uzbekistan's method of regulating legal relations in the blockchain sector based on the legal standards of other countries. To achieve this goal, the following tasks have been defined:

1. Comparative study of international and national approaches to determining the legal status of blockchain.
2. Familiarization and analysis of the legal nature of smart contracts and the legal consequences of their conclusion, execution, and termination.
3. Consideration of solutions to the problem of jurisdiction in cross-border operations carried out through crypto-assets.

4. Conducting a theoretical analysis of the scale of such experiments as Regulatory Sand in Uzbekistan.

LITERATURE REVIEW:

The number of scientific research devoted to the study of blockchain law and sources covering the system is growing day by day: Crypto-assets are digital values created on the basis of blockchain. These are mainly means of payment or investment assets. Therefore, their legal regulation and management are important. The US experience in this area is extensive, i.e., the "HOWEY test." This test determines whether each crypto-asset is considered a security or not. According to this experience, if a crypto-asset is acquired for investment purposes and the profit depends on the activities of others, then it is considered a security. This means that every instrument, which is a security in itself, falls under strict legal control. But according to research results, this confirms the difficulty of controlling DeFi (decentralized finance) projects. This is attributed to the lack of a central controller in DeFi systems and the fact that the blockchain handles the entire process alone. For this reason, countries are conducting numerous experiments on how to control such systems. An example of this is observation and transparency in the blockchain system, based on the recommendations of the FATF (Financial Action Task Force).

The essence of smart contracts and possible errors in the blockchain system



Smart contracts are programmed contracts in which the parties agree on the terms of the contract anonymously, and when the terms are met, the transaction is executed automatically. That is, the system automatically delivers the product or performs the service. Smart contracts are stored in the blockchain system and cannot be altered or falsified under any circumstances. Also, each contract will be available in decentralized networks, and the parties will not need a bank or a notary. This is, of course, convenient, fast, and transparent. However, regulating them is a difficult task and raises many questions. For example, how is the legal status of a contract determined? If there is an error in the code, who will take responsibility? Are smart contract documents recognized as documents in court? To regulate such technical problems, RS (regulatory sands) are being created, and new research aimed at further improving the blockchain system is planned.

International legal conflict. UNCITRAL and UNINDROIT

International legal conflict is when the laws of different countries collide on the same issue. Currently, blockchain technologies are causing an international legal conflict in the world, and not only the national legal system, but also international law is seeking answers to the questions posed by this system. For example, due to the fact that transactions are not located in the same territory and are borderless, the law of which state is regulated is considered the main problem. Organizations such as UNCITRAL and UNINDROIT have been conducting numerous experiments on this issue. They are organizations specializing in studying disputes related to blockchain, crypto-assets, smart contracts, and digital assets, and providing them with legal solutions or recommendations. These organizations also support a neutral approach to technology. That is, they believe that laws should be adapted to technology but without limiting technology.

On the example of critical analysis and the legal framework of Uzbekistan

Although the studies analyzed above provide a valuable theoretical basis, most of them were created in the context of developed Western markets (USA, Europe). For developing economies like Uzbekistan, it is advisable to look at the national legal system. Currently, Uzbek scientists are also paying attention to these problems and making proposals for adapting national law to the requirements of digital technologies. However, there are few analyses and experiments dedicated specifically to the national legal aspects of blockchain. A number of regulatory legal

acts have been adopted in the Republic of Uzbekistan for the development of blockchain technology. In particular, Presidential Decree No. UP-3832 of July 3, 2018, defined measures for the development of the digital economy. Furthermore, government resolutions "On the Digital Economy and Crypto-Asset Turnover" are creating a legal framework for blockchain-based activities. In addition, the laws "On Electronic Documents," "On Electronic Signature," and "On Information Security" also ensure the practical application of the blockchain system. In international law, the recommendations developed by the UN and the OECD regulating the digital economy are of great importance.

In addition, in the context of Uzbekistan, the "Digital Uzbekistan - 2030" strategy is being implemented on this issue. This strategy is a digital transformation strategy adopted by the Republic of Uzbekistan and approved by presidential decree in 2020. Its main goal is the transfer of public services to electronic form and the implementation of the "Digital Government" concept. The digitalization of public services provides for the use of blockchain technology to ensure data security, reliability, and transparency.

Gaps in research:

Since blockchain technology is still a new direction, there are some gaps in its full legal regulation. At the international level, different countries manage this technology based on different approaches. For example, in the USA, blockchain activity is mainly regulated by laws related to financial markets, while in the European Union, a special 'Markets in Crypto-Assets Regulation (MiCA)' has been adopted. In Uzbekistan, some uncertainties remain regarding the legal status of blockchain, crypto-asset trading, and information security. In particular, mechanisms for recognizing blockchain-based electronic data as legally binding documents in international treaties have not yet been fully developed.

Main part (Methodology, Results):

In this study, the following methods were used for the legal regulation of blockchain technologies:

1. Comparative legal study: the study examined the legal experience of Western Europe, the USA, and the countries of East Asia in the field of blockchain.
2. Analysis of national legislation: The existing legal system base in the Republic of Uzbekistan was comparatively studied and analyzed with international experience.
3. Study of the main topics: the problem of jurisdiction in cross-border operations carried out



through the blockchain system, smart contracts and crypto-assets, and the experience of Uzbekistan in this system, as well as current research, were theoretically studied.

In conclusion, it can be said that the research results confirmed that global changes in blockchain technology are having a strong impact on international and national relations. Due to the decentralized nature of technology, traditional legal norms are insufficient. The implementation of legal reforms for Uzbekistan, such as defining the legal status of smart contracts, integrating international model laws, and expanding the "Regulatory Sandbox," will create a solid foundation for the digital transformation of the national economy. These measures will serve to transform Uzbekistan into one of the innovative jurisdictions in the region.

REFERENCES

1. Legislation of the Republic of Uzbekistan "On the Turnover of Crypto-Assets." National Database of Legislation of the Republic of Uzbekistan. <https://lex.uz/docs/-6791183?ONDATE=08.05.2024ps://lex.uz/docs/-6791183?ONDATE=08.05.2024>
2. Decree of the President of the Republic of Uzbekistan on the Strategy "Digital Uzbekistan - 2030." <https://lex.uz/docs/-5030957>
3. DeVries, H. (2020). *Blockchain and the Law: The Rule of Code*. Routledge. <https://www2.arpel.org/Resources/u2A8B3/243202/BlockchainAndTheLawTheRuleOfCode.pdf>
4. Schwartz, W. K. (2019). *Smart Contracts: A Legal Perspective on Decentralized Automation*. Yale Law Journal. https://www.researchgate.net/publication/392072657_Smart_Contracts_and_Legal_Enforceability_Decoding_the_Political_Philosophy_of_Code_as_Law?utm_source=chatgpt.com
5. Katta, K. (2021). *The Legal Status of Digital Assets and Smart Contracts*. Cambridge University Press. https://www.cambridge.org/core/books/cambridge-handbook-of-smart-contracts-blockchain-technology-and-digital-platforms/smart-contracts-and-contract-law/ABA1420E49BEE88E844B00947783BC28?utm_source
6. Harris, P. K. (2023). *Jurisdictional Challenges in Global Blockchain Ecosystems*. *International Review of Law and Economics*. <http://journals.abuad.edu.ng/index.php/ajsd/article/download/1528/784/5737>
7. Nordic, V. D. (2022). *Regulatory Challenges for Decentralized Finance (DeFi)*. *Journal of Financial Regulation*. https://www.researchgate.net/publication/385950042_Challenges_of_Regulatory_Compliance_in_Decentralized_Finance_DeFi
8. Ibragimov, G. I. (2024). *Digital Economy and Legal Reforms*. Tashkent: Adolat Publishing House. (Recommended local source). <https://innoist.uz/index.php/ist/article/download/507/508/1435>
9. UNCITRAL Model Law on Electronic Transferable Records (2017). (International Model Law). https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/mletr_ebook_e.pdf?utm_source
10. FATF Guidance for a Risk-Based Approach to Virtual Assets and Virtual Asset Service Providers (2023). (International Control Standard). <https://www.fatf-gafi.org/en/publications/Fatfrecommendations/Guidance-rba-virtual-assets-2021.html>