

**SMART CONTRACTS - RETROSPECTIVE ANALYSIS**

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**Abstract**

In this article, the civil-legal nature of smart contracts is researched and relevant conclusions are drawn. In this scientific work, the relevance, purpose and tasks of the research, the level of research of the problem, the object and the subject are given, and the conclusions and proposals reached based on the results of the research are reflected.

**Keywords:** smart contracts, blockchain, distributed ledger, civil law, digital contracts.

**Introduction**

All over the world, large-scale innovations and changes associated with the introduction of digital technologies are occurring in all areas of public relations. Statistical analysis shows that the number of users of smart contracts within the framework of civil legal relations in 2023 reached 420 million. The rapid development of such digital relationships has led to an increase in their economic value by 540,000 percent in 2022 compared to 2012<sup>1</sup>. The various economic and political changes taking place on the global stage over the past five years are expanding the scope of blockchain-related relationships in the Central Asian region.

In the international arena, the development of digital civil institutions makes urgent the issues of improving the legal support of relations related to new technologies. Therefore, special attention is paid to the study of digital technologies as a legal reality, in particular the genesis of smart contracts and specific aspects of civil legal relations associated with them. However, one of the most important problems remains the scientific analysis of the role of smart contracts, which are considered a new legal reality in civil institutions, their legal nature and the problems of applying the principles of civil law to digital relations complicated by them, to determine the specific features of the legal support for the participation of smart contracts in institutions of transactions and obligations.

In Uzbekistan, one of the new and promising institutions entering civil circulation are smart contracts that digitize contractual relations. President of the Republic of Uzbekistan Sh.M. Mirziyoyev pays special attention to such issues as organizing activities in the field of circulation of crypto-assets, mining, smart contracts, creating the necessary legal framework for the implementation of blockchain technologies, taking into account the best practices of foreign countries as one of the priorities facing our country. In addition, decrees and resolutions of the President set the task of introducing smart contracts into the activities of joint-stock companies, government procurement, transport services, auctions and other industries. This requires the creation of a scientific basis for the application of this reality

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<sup>1</sup> <https://www.grandviewresearch.com/industry-analysis/smart-contracts-market-report>.

and the formation of the necessary legal framework. The study of smart contracts is inextricably linked with interdisciplinarity. The study of the legal nature of smart contracts in digital civil circulation requires attention to research in various fields of jurisprudence, as well as in technical and economic sciences; in particular, one of the obstacles to the use of this institution is the insufficiency of legal norms regulating related relations. In scientific research, the content of regulation of such relations is analyzed on the basis of general rules of contract law, and this situation indicates that the specifics of smart contracts are ignored. Based on the goals and objectives of this research work, it is recommended to conduct scientific and practical research, carefully study the problems facing rulemaking in this area, and justify relevant proposals.

### The degree of knowledge of the problem

To date, legal scholars have studied some aspects of the legal regulation of civil law transactions complicated by smart contracts. In particular, in the national legal system of Uzbekistan, the legal aspects of digital transactions, issues of smart contracts and the use of automated means in the performance of obligations were studied by Sh.N. Ruzinazarov, O. Okyulov, M.H. Baratov, M.P. Kalandarova, A. N.Yakubov, F.B.Zaynilobiddinova, I.R. Rustambekov and other scientists<sup>2</sup>.

In particular, in the works of Sh.N. Ruzinazarov studied the methodological foundations of smart contracts and their legal support, and in the studies of M.P.Kalandarova highlights the importance, effectiveness and problematic issues of using smart contracts in the field of public procurement<sup>3</sup>.

The dissertation research of A. N. Yakubov analyzed the use of smart contracts in foreign economic transactions and issues related to smart contracts of digital objects of civil law<sup>4</sup>.

F.B. Zaynilobiddinova, in her scientific work, studied the problems of using smart contracts in investment activities, and also explained the content and features of smart contracts<sup>5</sup>.

Also in foreign countries, issues related to smart contracts are being studied by some researchers on a general basis. Among the authors of such studies are A.Y. Akhmedov, A.A. Volos, Y.P. Volos, O.S. Green, Y.S. Green, A.V. Soloviev, Y.A. Gromova, L.G. Efimova, D.V. Fedorov and other scientists from the CIS countries.

In the studies of these scientists, smart contracts were studied from a civil law point of view. The features of its use in contractual relations, prospects for its use and other similar issues were also studied. A scientific analysis of these studies shows that conceptual approaches, according to the only fundamental scientific and practical studies of the legal nature of smart

<sup>2</sup> Список работ приведен в списке использованной литературы.

<sup>3</sup> Рузиназаров Ш.Н., Новый этап развития гражданского кодекса Республики Узбекистан в условиях цифровой реальности // Одиллик мезони, № 10, 2020, – Б. 57.; Ruzinazarov Sh.N. Elektron tijoratda axborot vositachisi (operatori)ning huquqiy maqomi // Odillik mezoni, №12, 2022, – Б. 13-15.; Qalandarova M.P., Davlat xaridlari tizimida smart-kontraktlarni huquqiy tartibga solishning doktrinal konsepsiyasi // Yurist axborotnomasi – Vestnik yurista – Lawyer herald. № 3 (2021) – Б. 48-49.

<sup>4</sup> Yakubov A.X, Tashqi savdo munosabatlarini huquqiy tartibga solishni takomillashtirish // yuridik fanlar bo'yicha falsafa doktori (PhD) dissertatsiyasi, – T.: TDYU., 2020. –B. 156.

<sup>5</sup> Zaynobiddinova F.B., Smart shartnomalar asosida investitsiyaviy faoliyatni amalga oshirishning huquqiy jihatlari // Yurist axborotnomasi – Вестник юриста – Lawyer herald. № 5 (2020) – S. 24-32.

contracts, have not been formed in the domestic legal civil doctrine. Practical solutions on specific aspects of this research topic (its use in other contractual relationships, features of the rights, obligations, responsibilities of the parties, prospects for the use of smart contracts in some contracts, etc.) have not been developed. Also, some objectively problematic aspects of smart contracts have become the object of monographic research in foreign countries. In the context of the digital reality, the research works of M. Durovic, A. Janssen, A. Herrian, A. Bayle, Bunyaorn Na Pombeir, J. Heckman, M. Kaularz, M. Mecca and others dealing with this modern topic deserve attention.

However, in the scientific works of these authors, the theoretical and methodological description of smart contracts, legal problems and prospects for improving the civil law nature are not sufficiently analyzed. Especially from the point of view of the national civil law doctrine, there is a need to study the conceptual aspects of this problem as an object of comprehensive dissertation research within the framework of the goals and objectives of the study, it is important to determine the features of its civil law regulation, develop civil legislation in this regard, as well as develop conclusions and proposals and recommendations for improving the effectiveness of its practical application.

### **Purpose of the Study**

The purpose of the dissertation is to substantiate scientific, theoretical and practical problems associated with the mechanisms of legal regulation of relations with smart contracts in current civil circulation.

### **Research Tasks:**

- systematic research of the expressed scientific approaches regarding the genesis, essence and content of a smart contract and the formation of a unified scientific approach;
- scientific analysis of civil law, scientific and practical concepts, legal features and digital technological structure of smart contracts;
- studying the problems of applying the principles of civil law in the legal support of relations between subjects of civil law transactions complicated by smart contracts;
- scientific analysis of issues related to the conclusion, modification and addition, as well as termination of the contract by the parties in civil law transactions based on smart contracts;
- research into mechanisms for fulfilling civil obligations related to smart contracts;
- consideration of smart contracts in relation to individual institutions of civil law;
- a systematic description of the problems of protecting the rights of parties to smart contracts and restoring violated rights;
- analyze trends in the rule-making of legal support for civil relations related to smart contracts, develop conclusions, proposals and recommendations for improving national legislation by studying the best foreign experience and practice.

**The object of the study** is complex digital civil legal relations associated with smart contracts.

**The subject of the study** consists of legislative acts regulating the implementation of public control in the courts, international standards and foreign experience, practice of application of law, conceptual approaches and scientific and theoretical views related to this industry.

**The research methods** included scientific methods, in particular comparative legal, systematic and logical analysis, analysis and synthesis, induction and deduction, statistical data analysis and generalization and evaluation of the results of sociological research.

## II. Main Part

It is known that comprehensive measures are being implemented in Uzbekistan for the active development of the digital economy, the widespread introduction of modern information and communication technologies in all sectors and areas, first of all, in public administration, education, health care and agriculture. In particular, improvement of the electronic government system, further development of the local market of software products and information technologies, IT parks are being organized in all regions of the republic. These cases are a special field of multi-vector civil-legal relations - they are inextricably linked with digital civil transactions.

Within the framework of the "Digital Uzbekistan - 2030" strategy, on the development of digital industry, on the development of digital infrastructure:

improvement of interaction mechanisms with customers (clients) in order to increase the volume of sales and improve customer service;

improvement of the management information support system, including the introduction of a real-time business analysis system;

In 2025, increase the share of large business entities that have implemented an enterprise resource management system (ERP) to 90 percent;

automation of production and management processes (ERP, MES, SCADA, etc.), robotization, "Internet of Things", "artificial intelligence" technologies introduced in industrial enterprises, the software product part by 2027, and the hardware part by 2030 public-private partnership localization based on;

A number of priorities were set, such as the introduction of smart technologies for the management of utility bills, the introduction of intelligent services and the introduction of the "smart home" experience for the regulation of utility services.

## III. Conclusion

1. The author's definitions were developed for the following term:

**smart contract** is a set of civil legal relations in an information system based on a distributed data registry, which automatically creates, changes, cancels or causes other civil legal consequences of the rights and obligations of subjects of civil legal transactions upon the occurrence of predetermined conditions;

2. The main features of smart contracts of a technological and civil law nature include the following: firstly, the will of the parties is expressed in digital form; secondly, it will be based on the technology of a distributed registry of legally significant data associated with a smart contract; thirdly, upon the occurrence of a predetermined event, the information

system automatically fulfills another condition without the explicit expression of the will of the parties; fourthly, smart contracts create, change, cancel the rights and obligations of subjects of civil relations or cause other civil consequences.

3. The technological description of digital civil transactions, complicated by smart contracts, does not exclude the application of civil principles to such relations.

4. Although smart contracts do not reflect traditional constructs of civil law principles in digital civil relations, such as good faith, legal equality of parties, freedom of contract, protection of violated rights, protection of the weak party, they can provide new mechanisms for the application of these principles.

5. In smart contracts created in a digital environment, acceptance by the other party is expressed in the following four ways: by clicking the “Agree” button in the information system; continuation of user actions in the information system after a warning that this will be regarded as consent to conclude a transaction; submitting an application during the registration process in a blockchain-based information system; acceptance for concluding a contract in the information system - filling out an application and performing other necessary actions.

6. In complex contractual relations with a smart contract, the agreement is significantly broader than the smart contract due to the fact that, in addition to the will of the parties expressed in the program, it is also regulated by law and business practice.

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