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PROSPECTS OF IMPLEMENTATION OF SMART CONTRACTS IN THE REPUBLIC OF UZBEKISTAN

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Annotation: This article analyzes new trends in contractual legal relations between business entities due to the introduction of the digital economy, in particular smart contracts as a type of modern contract, as well as its specific features, advantages and disadvantages.Also, in the legislation of the Republic of Uzbekistan, the problems that may arise with the practical application of smart contracts and the necessary amendments to the legislation are described.

Key words: Smart contracts, blockchain technology, investment, digital economy, automated decision-making.

Today the Republic of Uzbekistan is rapidly entering the stage of development of the digital sector of the economy, large-scale measures are being implemented in this regard. In particular, electronic document circulation systems are being introduced, electronic payments are being developed, and the digital economy operating on information technology platforms in the field of electronic commerce is rapidly developing. Today, in the developed countries of the world block chain technology is increasingly being developed, and along with crypto assets the concept of smart contracts is becoming an integral part of everyday life. In Uzbekistan also on the basis of the Resolution of the President of the Republic of Uzbekistan No. PP-3926 “On measures on the organization of activity of crypto-exchanges in the Republic of Uzbekistan” and the Resolution of the President of the Republic of Uzbekistan PP-3832 “On measures on development of digital economy in the Republic of Uzbekistan” it is planned to consider prospects of regulation and the further development of system of blockchains, crypto-currency and smart-contracts. In particular, the Decree of the President of the Republic of Uzbekistan № PP-3832 In order to implement the strategy of action on five priority directions of development of the Republic of Uzbekistan in 2017 - 2021 the most important tasks for the further development of the digital economy are identified:

For a diversification of various forms of investment and business activity are used activity in the sphere of turnover of crypto assets, including mining (activity on maintenance of a distributive platform and creation of new blocks allowing to receive compensation in the form of new blocks and commission fees in various crypto-currencies), a smart contract (the contract in electronic form, providing performance of the rights and obligations by means of automatic performance of digital transactions), Consulting, issue, exchange, storage, exchange of the rights and obligations in the form of a new block;

Training of qualified personnel with practical working skills using modern information and communication technologies in the development and use of blockchain technologies;

Activities in the field of crypto assets and comprehensive development of cooperation with international and foreign organizations in the field of blockchain technologies, attracting highly qualified foreign specialists working in the development of blockchain systems for joint implementation of projects in the digital economy;

Creation of the necessary legal framework for the implementation of the blockchain technology, taking into account the best practices of foreign countries;

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Ensuring close cooperation between government agencies and business entities in the implementation of innovative ideas, technologies and developments for further development of the digital economy.

This increases the need to create new models of such platforms and to legally regulate their activities. In particular, the emergence of new types of contracts, such as smart contracts, has led to the emergence of different approaches to the concept of contracts. In this, new theories and concepts emerged and developed. Before talking about smart contracts, let's talk about contracts in general. At first, when we touch on the concept of traditional contracts, according to the requirements of Article 8 of the Civil Code of the Republic of Uzbekistan, contracts are one of the bases for the creation of civil rights and duties between the parties. Undoubtedly, today contracts are given special importance. Because in contracts, compared to other legal facts, the will of the parties is fully expressed. The persons who enter into the contract will independently decide with whom, how much, when to enter into a contract, in what terms and in which means of transport the money, goods and materials to be delivered will be delivered, and in what forms of payment will be made. They are free to enter into contracts, no coercion is allowed.

The content of the principle of freedom of contract is reinforced in Article 354 of the Civil Code. According to it, citizens and legal entities are free to conclude contracts. This means that no one can force them to enter into a contract. The contract is concluded by citizens and legal entities at their own will.

Also, according to a study by the International Association of Contract and Sales Management , 60-80% of business deals are managed through written contracts, and the typical Fortune 1000 company has an average of 20,000-40,000 active contracts during the year [1].

Currently, the number of active contracts within the company is increasing year by year. All these contracts need to be managed because contracts are the lifeblood of any enterprise . In order for companies not to face various financial problems later, business entities should take into account the compliance with legal requirements in the construction and execution of contracts. As a result, a number of successful contract enforcement solutions are being developed. Contract automation can be a reliable solution to the increasingly complex contract management problem. Imagine that the contract is self-executing: for example, the contract automatically pays after delivery, or the contract itself automatically indexes its rates during times of strong correlation of independent exchange rates. Such self-executing contracts, also known as smart contracts, are theoretically more functional than their traditional predecessors. Because such contracts reduce the excessive pressure of business subjects with the realization of contracts [2].

The concept of "smart contracts" is not relatively new, although the international legal business has been paying attention to "smart contracts" in recent years, but their idea was invented in the early 1990s by computer engineer, lawyer and cryptographer Nico Szabo. Szabo has published several articles and works on the concept of "smart contracts" over the years. In his early work, he defined "smart contracts" as agreements in digital form, including a set of protocols by which parties implement these agreements. Another definition of "smart contract" is given by Szabo in another publication, where it is stated that "smart contracts" are "digital, computable contracts, the fulfillment of the terms of the contract is ensured automatically, without human intervention" [3].

Szabo compared the concept of "smart contracts" to a machine that sells soft drinks: "When money is paid, a set of irreversible actions takes effect. Money is accepted and drinks are delivered . The contract cannot be terminated in the middle of execution . Refunds cannot be made [4]after the drink has been placed . The terms of the agreement are embedded in the hardware and software that

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controls the machine. Using the example of a simple vending machine, Szabo tries to reveal the true essence of a smart contract.

Szabo and some other scientists, the concept of smart contracts has disappeared from view for several decades due to the lack of the necessary technologies. However, with *the advent of blockchain technology* , the focus on smart contracts has also changed. In the following paragraphs, we will fully explain the blockchain technology and talk about its role in the smart contract system [5].

Blockchain, a database and computing technology that is managed in a decentralized (and often autonomous) manner, was first used in the cryptocurrency Bitcoin in early 2008 and became known as a technology. The idea of this cryptographically secure block chain, like smart contracts, originated in 1991 and the first blockchain system was conceptualized by Satoshi Nakamoto, whose identity is still unknown, and was implemented and popularized in 2008 through the Bitcoin crypto-currency.

The simplest form of blockchain technology involves a distributed database that autonomously maintains an ever-growing list of public records in a unit of "blocks" that is protected from hacking and modification. Each block has a timekeeping system and a link to the previous block. The main purpose of the blockchain is to create a decentralized database system that can be managed by parties without a single person exercising centralized control [6].

The main advantages of smart contracts. In theory, smart contracts have several advantages over traditional contracts .

First, the operating costs of smart contracts are lower than the operating costs associated with traditional contracts, because smart contracts are self-executing and do not involve third parties in their execution. Unlike traditional contracts, smart contracts do not require banks, notaries, or accountants to automatically verify that the party supplying the blockchain is the real owner of the product, for example smart contracts are self-executing and their execution *is independent of any third parties*, resulting in smart contracts help to significantly save the time spent on signing /implementing the transaction (clearing and settlements). Since everything is done in a defined programming language, as soon as the parties complete their tasks under the smart contracts , execution and payment are done. Where traditional contracts (and the parties involved) are limited by human involvement and the time required to complete and execute the contract, smart contracts require less time to execute, the execution of smart contracts is automated. Once the conditions mentioned in the code are met, the smart contracts are executed automatically.

Smart contracts have other advantages besides time and cost savings. As mentioned in the previous paragraphs on immutability and automation, it can be concluded that contracting parties or third parties do not unilaterally influence the implementation of smart contracts . Once the smart contract is activated in the blockchain system, different interpretations and third-party interventions are impossible. Since smart contracts are neutral, the parties cannot interpret them in their own interests [7].

This means that all contracting parties know in advance how the terms of smart contracts will be fulfilled. In traditional paper contracts , it is observed that the parties later interpret the contractual obligations in their favor and finally fulfill the terms of the contract as they understand them . When using smart contracts, this situation is almost impossible due to the fact that the code itself executes regardless of subjective criteria . Because the code itself is deterministic, if obligations are enforced as a result of the code being indifferent to the comments or opinions of the parties, it will always produce the same result. Parties know that when smart contracts are in place, once the terms of the

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contract are fulfilled, the obligations of the other party are also fulfilled . Since the parties cannot change anything in this regard, they must take into account the final and predictable result of the contract.

Given the above advantages, some proponents of smart contracts believe that smart contracts are superior to traditional contracts because they increase efficiency, increase reliability, and reduce costs [8]. However, despite some large projects carried out by startups or financial institutions, no decision on smart contracts has yet led to significant changes in traditional contracting.

Aspects of smart contracts that should be considered. Despite the increasing interest in smart contract technology , it still remains simple. Thus, contracting parties are still relatively ignorant of smart contracts, their technology and potential. A simple but logical reason for this may be due to the fact that the contracting parties still want to see and understand what they agreed to in the smart contract. At present, most parties are not confident enough about their agreement if they have a code in front of them and want to see a written (and paper) contract. The lack of basic understanding and regulation of programmed codes and smart contracts is reflected in the fact that smart contracts have not yet significantly changed the way traditional contracts work.

Smart contracts are still in a primitive state is because many of the advantages discussed in the previous sections still need clarification and explanation. Since further review is appropriate, several aspects of the review will be explained in the following sections to provide a clearer picture of smart contracts.

Participation of third parties. According to many proponents of smart contracts , one of the most important advantages of smart contracts is the elimination of third-party agents. Thus, the elimination of the third party ultimately reduces transaction costs and saves time for contract formalization and settlement. However, the real situation is that third-party agents will not disappear completely , they will start to play a different role in this process. The participation of third-party representatives, such as notaries, reduces the contribution to the process of concluding contracts, on the other hand, the participation of other parties increases. If traditional written contracts often need contract lawyers during the drafting process, smart contract developers will need more to draft smart contracts and they will need to work with "traditional" lawyers. In the future, the need for experienced lawyers in the field of Information Technologies will increase, because developers of smart contracts, in turn, need to receive advice on the conclusion of new types of contracts

Smart contracts are implemented in the blockchain programming language, it can be concluded that the relevant agreements are hardly changed by the parties themselves. This helps make things more predictable, as the binary design of smart contract code prevents smart contract agreements from being interpreted by their context or origin.

Although blockchain and smart contracts are new technologies, the legal issues they raise may already be covered by the existing legal framework.

However, there are potential problems for regulating automation. Automation can be used in many decentralized technologies (such as robotics, artificial intelligence, 3D printing and blockchain) because it is more complex than defining a legal framework for smart contracts.

ADM (Automated decision-making) machine is an important factor for human negotiation comparable to information transfer for any transactional agreement. All this affects different levels of business industrialization and restructuring [9]. ADM has also changed regulatory compliance with the acceleration of operational processes and increased demand for continuous updates of targeted regulation. As regulatory requirements evolve, they are automated to more effectively respond to changing regulatory expectations. Regulatory automation is a pervasive legal issue that spans a range of industries, from cellular transactions and financial services to self-driving cars. In this context, the

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development of autonomous technologies and artificial intelligence will connect with all systems of the state and may eventually lead to national (or federal) harmonization. In sensitive areas such as privacy, data transfer, online contracts (including smart contracts), business and economic dislocation, labor migration, and intellectual security, automation policies must be reconciled with internal welfare considerations while negotiating innovative investments and international agreements.

Just like the Internet, the legal basis of blockchain is another technological tool for the interaction of parties. Therefore, smart contracts can be considered as a set of automatically executed algorithms.

In order to protect individuals, Article 22 of the General Data Protection Regulation (General Data Protection Regulation) in the European Union defines the relevant conditions for informing consumers and users of automated decisions. According to this norm, individuals have the right to information about the availability, "logic involved" and importance of decision automation processes.

One of the main tools of business entities in the Republic of Uzbekistan is transactions and contracts. Such contractual legal relations are regulated by a number of normative legal documents. First of all, we can cite the example of the Civil Code of the Republic of Uzbekistan and the Law of the Republic of Uzbekistan "On the contractual and legal basis of the activities of economic entities". Article 353 of the Civil Code of the Republic of Uzbekistan (hereinafter referred to as CC) provides a general definition of the concept of contract, according to which "An agreement between two or more persons to create, change or cancel civil rights and duties is called a contract" [10]. Article 354 of the CC stipulates that individuals and legal entities are free to enter into contracts in the Republic of Uzbekistan. The terms of the contract are determined by the will of the parties, except for the cases where the content of the relevant condition is specified in the legislation. Article 3 of the Law of the Republic of Uzbekistan “On the Contractual-Legal Basis of the Activities of Business Entities" states that “One of the parties undertakes to provide goods, perform works or provide services in the field of business activity within the stipulated period, and the other party undertakes to accept goods, works, services and their An agreement that obligates to pay is called an economic contract”.

At the same time, the use of smart contracts in the field of business has a number of positive features for our country. First of all, the implementation of such contracts on the territory of the Republic is the reason for the further development of the digital economy. As a result, the integration with the world economy will become stronger. This allows our country to actively participate in the international money circulation system, to test investments in new sectors, especially in the field of crypto-currencies.

Secondly, the introduction of smart contracts and the blockchain system will lead to the creation of new business entities operating in this field, and an increase in additional tax revenues.

Thirdly, contractual relations between business entities will be simplified, freeing them from spending additional time and money.

Fourth, it prevents various disputes that may arise between business entities. This naturally causes a significant decrease in the workload of the courts.

Due to the fact that smart contracts are still new and unregulated in the legislation of Uzbekistan, first of all, it is necessary to determine the legal status of smart contracts in our legislation. For this, it is appropriate to make the following changes and additions to the legislation.

First, it is proposed to amend Article 105 of the Civil Code of the Republic of Uzbekistan “Agreements shall be concluded orally or in writing (ordinary or notarized)” as follows:

“Agreements are made verbally or in writing (simple and notarized), as well as in the form of an electronic algorithm." Also, it is appropriate to supplement this article with the following part: "Transactions can be carried out fully or partially through an electronic algorithm. The consequences

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of transactions carried out in the form of an electronic algorithm are equal to the consequences of ordinary transactions."

Secondly, Chapter 21 of the Civil Code (Performance of Obligations) should be supplemented with a new article on automatic fulfillment of Obligations. Its sample text is as follows:

"A computer (electronic algorithm) that provides for certain actions related to the fulfillment of obligations, as well as the implementation, modification and cancellation of certain rights under contractual obligations, the execution or non-execution of certain actions or the occurrence of other circumstances or other parameters provided for in the contract and (or) algorithm) can be done automatically based on the program".

Thirdly, part 1 of Article 11 of the Law of the Republic of Uzbekistan "On the Contractual-Legal Basis of the Activities of Business Entities" proposes that "Economic contracts shall be drawn up in the written form provided for the conclusion of transactions" will be made in the form of". Also, the concept of automatic fulfillment of obligations should be added to Article 14 of the Law, i.e., the Article on the Implementation of the Economic Contract.

The next reform that needs to be done is to determine the procedure for resolving disputes in the event of smart contracts. For this, first of all, it is necessary to make necessary amendments to the concept of evidence provided in the Code of Economic Procedure and the Code of Civil Procedure, and through this, it is necessary to allow smart contracts to be presented as evidence in court.

Another noteworthy point is that our legislation should develop a procedure for ensuring the fulfillment of the terms of smart contracts.

Since business entities deal with crypto-assets in contractual relations, it is necessary to ensure the security of these types of transactions. For this reason, establishment of a department dealing with this issue under the Ministry of Innovative Development. It is also appropriate to entrust this department with the authority to form a single register of smart contracts.

In addition, it is necessary to establish a separate department at the Capital Market Development Agency of the Republic of Uzbekistan dealing with the prevention of manipulation of the crypto-assets market.

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