CONSIDERING THE LEGAL NATURE OF A SMART CONTRACT

РАССМОТРЕНИЕ ПРАВОВОЙ ПРИРОДЫ СМАРТ-КОНТРАКТА

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Sherstobitov Alexander Andreevich, 1st year Master's Degree student, Law Institute, Belgorod State National Research University, Belgorod, Russia, e-mail: Alex16394@yandex.ru

Scientific advisor: Karabutova Elena Aleksandrovna, Ph.D. in Pedagogy, Associate Professor, Foreign Languages and Professional Communication Department, Belgorod State National Research University, Belgorod, Russia, e-mail: Karabutova@bsu.edu.ru

Шерстобитов Александр Андреевич, магистрант, Юридический институт, Белгородский государственный национальный исследовательский университет, Белгород, Россия, Электронная почта: Alex16394@yandex.ru

Научный руководитель: Карабутова Елена Александровна, кандидат педагогических наук, доцент, Кафедра иностранных языков и профессиональной коммуникации, Белгородский государственный национальный исследовательский университет, Белгород, Россия, Электронная почта: Karabutova@bsu.edu.ru

Abstract

The article deals with the legal nature of the smart contract based on the legislation of various countries: Russia, the USA, Italy and the Republic of Belarus. The author gives the definition of a phenomenon "smart contract" in accordance with some scientific studies in this sphere. The definite scientific approaches are analyzed. The

negative legal consequences of the lack of legal regulation of a smart contract are considered.

Аннотация

В статье рассматривается правовая природа смарт-контракта на основе законодательства различных стран: России, США, Италии и Республики Беларусь. Автор дает определение феномена «смарт-контракт» в соответствии с некоторыми научными исследованиями в этой сфере. Анализируются определенные научные подходы. Рассмотрены негативные правовые последствия отсутствия правового регулирования смарт-контракта.

Keywords: Smart contract, blockchain, special contractual structure, secure obligations method.

Ключевые слова: Смарт-контракт, блокчейн, особенная договорная конструкция, способ исполнения обязательств.

Information technologies are increasingly penetrating into various spheres of modern society. However, legal regulation does not often keep pace with the rapid development of public relations. Thus, in economic practice, relations related to such a phenomenon as "smart contract", acting on the basis of the blockchain algorithm, are already quite widely used, legal norms neither clearly regulate these relations, nor define these concepts. In addition, the prospects for applying a smart contract are quite great.

The article is aimed to reveal the legal nature of the smart contract and the features of its application in the legal system of the state.

A very promising area of application of a smart contract is in the field of such bank loan services, as mortgages or small business lending. The use of a smart contract can optimize the provision of such services as the automatic conclusion and execution of the contract. Moreover, using a smart contract allows increasing the reliability of the definite transactions, since the smart contract program does not provide some changes by one party.

The use of a smart contract in insurance activities is no less promising, since a smart contract can reduce costs in conducting insurance activities by automating the processing of documents, monitoring the conditions of insured property and making insurance payments in case of an insured event. Reducing costs naturally makes the provision of insurance services more affordable and reliable.

It is quite important to use a smart contract for short-term rental of a car with per-minute charging, called car sharing. The conclusion and execution of a contract for this type of lease is carried out through a special program that automatically concludes a user agreement, as well as the necessary money transfers and the fulfillment of the obligation control.

In this regard, legal science faces an important task in determining the nature of the legal design of a smart contract, which is the basis for further legal regulation of relations related to this design.

It is necessary to define the concept of such a phenomenon as "blockchain," since smart contracts are implemented through this technology.

Blockchain (English "blockchain," "block" – block, "chein" – chain) is considered to be a continuous serial chain of blocks containing information built according to certain rules, forming a distributed data registry in which there is no centralized storage, which makes it possible to ensure the reliability of transactions without the actions of any financial regulators. Transactions are checked by the system participants, who confirm the validity of the actions performed, and transaction blocks are formed in accordance with these checks. The information registry is stored by all system participants and is automatically updated with the slightest change. Everyone has access to information about any transaction ever made [5]. It makes the blockchain one of the safest means for storing and transmitting information, since within the system there is a chronological recording and confirmation by all participants of the network of blocks of any changes made to the register.

It is necessary to consider the interpretations of a smart contract, data in the legal regulation system of various countries.

In the legislation of the Republic of Belarus, Decree No.8 "On the Development of the Digital Economy" there is the following definition: "Smart contract is a program code intended to function in the registry of transaction blocks (blockchain), another distributed information system for the purpose of automated execution and (or) execution of transactions, or other significant legal actions" [6].

In the United States, there is no centralized regulation of contract law, including regarding smart contracts, but various states have adopted legal acts governing smart contracts. So, in the State of Arizona, the law determines that a smart contract is an event-driven program that operates on the basis of a distributed, decentralized, divided and reproducible registry, which allows storing assets and transact with them through this registry [4]. In Illinois, in "Blockchain Technology Act," a smart contract is defined as an agreement recorded as an electronic document that can be verified with a blockchain [1]. Based on this definition, it can be concluded that Illinois law defines a smart contract as a traditional contract recorded and executed through blockchain.

Italy is also one of the few countries that regulate smart contracts at the legislative level. So, on February 7, 2019, the Italian parliament adopted the DDL No. 989 as part of the Art Article 8-bis which defines a smart contract. So, according to the bill, a smart contract refers to a computer program that works on the basis of distributed registry technology (blockchain), and the execution of which automatically connects two or more parties based on certain conditions established by these parties. It is important to note that, according to this document, a smart contract is an equivalent of a written contract, subject identifying parties interested in the smart contract in accordance with the requirements established by Agenzia per l'Italia Digitale (Digital Agency of Italy) [8].

It should be noted that in the Russian Federation there is no definition of a legislator on the nature of a smart contract, while the concept was given in bill No. 419059-7 "On digital financial assets" in 2018. In subsequent revisions of the bill, provisions on a smart contract are excluded. The definition given in the bill is of

interest to science. In accordance with the bill "a smart contract is an electronic contract, the execution of rights and obligations, which is carried out by automatically making digital transactions in a distributed register of digital transactions in a sequence strictly defined by such a contract and in the event of circumstances determined by it" [7].

There are some scientific approaches to determine the nature of a smart contract.

One of the representatives of the first approach, representing a smart contract as a type of contract, is A.I. Savelyev, who believes that a smart contract is concluded similarly to the model of an accession treaty. The scientist’s opinion is bases on the fact that the party that makes up the program code actually forms the terms of the agreement, and the other parties agree to these terms, thereby becoming acceding parties, accepting those terms that already exist. A.I. Savelyev proposes the definition of the nature of the phenomenon under consideration that "a smart contract in the form of program code is implemented on the blockchain platform, which ensures the autonomy and self-fulfillment of the terms of such a contract upon the pre-determined circumstances in it" [9].

The second approach defines a smart contract through a non-independent special contractual design. It implies the inextricably linked contracts of any kind, which are made to use information and communication technologies and the obligations are fulfilled automatically. This approach is approved by O.S. Grin, E.S. Grin and A.V. Soloviev in the article "Legal design of a smart contract: legal nature and scope" [3].

Moreover, a smart contract is referred to as a specific type of performance guarantee, which is due to the automatic operation of the smart contract program, does not allow any changes in the operation of the launched program. This allows the parties to be sure that their contract can be fulfilled in the exact way that it was embedded in the program code of the smart contract, not allowing any abuse. Supporters of this approach are L.G. Efimova and O.B. Sizemova in the work "Legal Nature of a Smart Contract" [2].

The fourth approach defines a smart contract as one of the possible terms of the contract on its performance, and not as a separate contract. According to the work of N.E. Safarli "Smart contract: concept, legal nature, features of conclusion and execution" smart contract is considered "an algorithm designed to automate the contract execution process. The author mentions, that otherwise it can be defined "as a set of rules and a sequence of actions to execute them. These rules are initially stored in the terms of the contract, then they are automatically checked, and then the conditions are fulfilled according to the digital protocol" [10].

Evidently, a smart contract cannot be recognized as a separate type of contract. Thus, it does not have a strictly defined subject of regulation, which is a necessary sign of a contract for its identification and it can be applied for various types of contracts. It is not possible to restrict a smart contract, referring it only to methods of securing the fulfillment of obligations, or considering it a condition for the performance of the contract. A smart contract can be used both as a form of conclusion of an agreement and as a way of its execution, while being a guarantee of fulfillment of an obligation, due to the invariability of the smart contract program.

In science and legislation there is no unified approach to determine the nature of a smart contract, which prevents sufficient legal regulation of this phenomenon. The most optimal approach considering the nature of a smart contract is to define it as a special contractual design.

In addition, the lack of legal regulation of the phenomenon under study can negatively affect civil traffic, since a smart contract is not just a theoretical design, but a completely practical contract-making algorithm, for example, a smart contract is used when concluding a car sharing contract. And in the case of disputes about violation of contracts it is important to highlight that to use smart contracts and resolve them will be problematic due to the lack of legislative regulation.

It is necessary to note that the compilation of the program code of a smart contract is a complex process and, if errors are made in its compilation, it can be very problematic to correct them, therefore, it seems significant to introduce certain standards and requirements that the program code can meet.

The development of international cooperation in the field of regulation of relations concerning the use of a smart contract and the blockchain system is important, since, a number of countries have already had some experience in regulating a smart contract, and the cooperation with them would contribute to the successful regulation related to smart contracts and the blockchain system.

Thus, the legislator should formulate a legal definition of a smart contract, determine the legal status of the parties to the smart contract, the procedure for applying this legal design, the procedure for the legal protection of each of the parties to the agreement, standards and requirements for creating smart contract algorithms, as well as develop a unified approach to the application of these norms in practice. These norms could be implemented within the framework of a new federal law, or included in the structure of existing legislative acts.

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