

Problematic aspects of property rights in the field of settlement transactions using cryptocurrency



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ABSTRACT

The relevance of the article is due to the rapid development of information technologies in the modern world. High technologies are emerging in all spheres of public life, in particular, in the sphere of economy. Among other things, the current trend in new technologies is cryptocurrencies. The number of virtual money transactions, including cryptocurrency transactions, is increasing every year. Given the prevalence of the new type of settlement, there is a need to analyze the peculiarities of property rights in the field of settlement transactions using cryptocurrency, as well as to consider its problematic aspects. The object of the study is the problematic aspects of cryptocurrency proprietary rights. The subject of research is the ownership of the field of settlement transactions using cryptocurrency, as well as the public relations associated with its occurrence. The research methodology consists of general scientific methods and special methods of scientific knowledge. As a result of the research, the peculiarities of the legal regulation of cryptocurrency in Ukraine and foreign countries were identified, as well as the problematic aspects of property rights in the sphere of settlement transactions using cryptocurrency were analyzed.

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1. Introduction

In modern conditions of development of social relations, commodity turnover is often ahead of its legislative regulation. This is also evident in the issue of cryptocurrency circulation in Ukraine. Cryptographic exchange trademarks have rapidly invaded economic life: They are objects of rights and transactions, and their circulation is not prohibited by law, at least in Ukraine. Cryptocurrency is bought and sold. Cryptocurrency serves as a means of payment in real estate purchase agreements, a means of forming the authorized capital of enterprises, and the like. Legislative regulation does not provide for the issue and circulation of cryptocurrencies, which significantly affects the modern civil and economic turnover.

In exploring this problem, it is advisable to identify the features of cryptocurrency in terms of initial physical characteristics, which is an important

step in the way of assigning cryptocurrencies to a particular group of civil rights objects.

Thus, software experts believe that, from a technical point of view, cryptocurrency is a certain character chain that is defined as a program code or a piece of code. There is also an alternative position that the definition of cryptocurrency should include references to blockchain records as non-cash is linked to bank account entries.

As of 2020, there are about a thousand types of cryptocurrencies (their number is constantly changing). Among them, the most widespread are such as Bitcoin, BitcoinCash, Ethereum, Litecoin, and others. Increasing their popularity in the world comes against the backdrop of the lack of a single concept of "cryptocurrency"—it varies from identification with the concepts of "product," "payment," "unit of account" to the concepts of "intangible digital asset," "investment asset," "financial asset," "a separate type of securities" etc.

Article 177 of the [VR \(2003\)](#) (hereinafter referred to as the CC of Ukraine) established a list of civil rights objects. Thus, according to the said article, the objects of civil rights are things, including money and securities, other property, property rights, results of works, services, results of intellectual, creative activity, information, as well as other tangible and intangible goods.

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The aforementioned list is a guide that should be addressed in determining the legal nature of cryptocurrencies. First of all, it is advisable to exclude objects that cannot be classified by definition by cryptocurrency. These are material benefits (because cryptocurrencies have no material body), services, and results of works.

Based on the list enshrined in Chapter 15 of the [VR \(2003\)](#), we can say that the lack of communication of cryptocurrencies with personal non-material benefits is obvious since the non-material benefits are inextricably linked with the human personality (life, health, honor, dignity, etc.). Also, according to the terms of the current legislation of Ukraine, electronic payment systems are computer programs, and some cryptocurrencies are not ([VR, 2018](#)).

Often, cryptocurrency is defined as information. Moreover, cryptocurrency is also defined by its technological nature as a set of information, because it is based on blockchain (an encrypted array of data on all transactions that were carried out in the distribution network during its existence). Furthermore, information cannot “end up,” on the contrary, it can be reproduced and disseminated indefinitely without changing its properties and loss of quality.

The idea of attributing cryptocurrencies to non-documentary securities is quite popular. The main argument of this statement is that both non-documentary securities and cryptocurrencies are accounts on accounts, but non-documentary securities are in the securities depository system, and the cryptocurrencies are in the blockchain payment system. However, given the content of the securities, this position is false, since the security certifies monetary or other property right and defines the relationship between the issuer of the security and the person entitled to the security, and also provides for the fulfillment of obligations under such security.

There are no cryptocurrencies and property rights, based on the definition of enshrined in Art. 3 of the Law of Ukraine ([VR, 2001b](#)). On the contrary, they themselves are objects of property rights (property rights, etc.). The absence of signs of property rights in cryptocurrencies is also confirmed by jurisprudence.

Qualification of cryptocurrencies as cash is currently excluded in Ukraine, first of all, because the domestic legislator proceeds from the real nature of cash. Nevertheless, such an exception is criticized by practitioners, economists, and scientists as an anachronism, because at the present stage, money may not be material, and this in no way affects their turnover and liquidity.

In view of the above, there is a need to analyze the problematic aspects of proprietary rights in the field of settlement transactions using cryptocurrency, and to identify the features of cryptocurrency in such a context. Thus the purpose of the article is to conduct a thorough analysis of public relations concerning property rights in the

field of settlement transactions using cryptocurrency.

2. Materials and methods

A set of principles, approaches, general scientific, and specific research methods were applied.

In the process of research, such general scientific and special methods as a historical-legal method, formal-logical method, comparative method, method of system analysis were used.

The use of the historical-legal method served to determine the origin and scientific study of the process of creation and development of virtual currency, legislative regulation of the countries of the world and Ukraine regarding the circulation and use of cryptocurrency. In the course of the analytical review of the issue of legal regulation of property rights in the field of settlement transactions using cryptocurrency by the European Union countries and in Ukraine, the comparative method was applied and allowed to suggest ways of forming Ukrainian legislation in this direction. The use of the formal-logical method helped to identify the main directions of the formation of legislation on the issues of regulatory and legal regulation concerning the circulation and use of virtual currency in Ukraine.

Besides, it is necessary to distinguish legal acts, which enshrined the provisions of the regulation of property rights, including in the field of settlement transactions using cryptocurrency.

1. The Constitution of Ukraine ([VR, 1996](#)).
2. Civil code of Ukraine ([VR, 2003](#)).
3. Law of Ukraine: On currency and currency transactions ([VR, 2018](#)).
4. Law of Ukraine ([VR, 1999](#)).
5. Draft Law on the Circulation of the Cryptocurrency in Ukraine of October 06 ([VR, 2017](#)).
6. Law of Ukraine: On payment systems and funds transfers in Ukraine ([VR, 2001a](#)).
7. Law of Ukraine: On property valuation, property rights, and professional valuation activity in Ukraine ([VR, 2001b](#)).

3. Analysis of recent research

Some aspects of cryptocurrency circulation, as well as proprietary rights in the field of settlement transactions using cryptocurrency, have been explored by both foreign and some Ukrainian and Russian economists and legal scholars, including [Bendiksen and Gibbons \(2018\)](#), [Vasilchak et al. \(2017\)](#), [Vakhrushev and Zhelezov \(2014\)](#), [Sean et al. \(2018\)](#), [Dostov and Shust \(2014\)](#), [Nelson \(2018\)](#), [Kutsevol and Shevchenko-Naumova \(2015\)](#), [Söderberg \(2018\)](#), [Rudenko and Krasova \(2015\)](#), [Dabrowski \(2018\)](#), [Hidzev \(2014\)](#), and [Zeldin \(2014\)](#).

Thus, [Bendiksen and Gibbons \(2018\)](#) explored Japan's practice of recognizing bitcoin as a means of

payment. Vasilchak et al. (2017) analyzed the prospects and risks of using cryptocurrencies in the modern economic systems of Ukraine.

Moreover, the object of research by Vakhrushev and Zhelezov (2014), had become a cryptocurrency as a phenomenon of the modern information economy. Sean et al. (2018) analyzed the international experience of cryptocurrency regulation. Dostov and Shust (2014) explored the risks and opportunities for credit institutions in the cryptocurrency market.

In addition, Nelson (2018) drew attention to the essence and tendencies of cryptocurrency development in modern conditions. Kutsevol and Shevchenko-Naumova (2015) were concerned with the definition of cryptocurrency and its legal nature.

In the article by Söderberg (2018), different types of cryptocurrencies and features of their regulation in Ukraine and abroad are explored. Rudenko and Krasova (2015) aimed at exploring the opportunities and prospects of cryptocurrency development. Dabrowski (2018) analyzed the possibilities of the financial model of business on bitcoins. Hidzev (2014) explored legal approaches to the formulation of the concept.

From the above analysis of the literature, we can conclude that cryptocurrency in Ukraine is the subject of research by many scientists, but the problematic aspects of property rights in the field of settlement operations with the help of cryptocurrency remain insufficiently investigated. This circumstance necessitates the need to study the problematic aspects of property rights in the field of settlement transactions using cryptocurrency.

4. Results

The interest in using cryptocurrency as a means of payment for payments for goods and services between civil law entities in Ukraine is because cryptocurrency is already a valuable payment instrument in the most developed countries of the world.

Unfortunately, in Ukraine, there are difficulties in the emergence of ownership in the field of settlement transactions using cryptocurrency.

In general, cryptocurrency is a type of digital currency, the issue, and accounting of which are based on asymmetric encryption and the application of various cryptographic security methods. The system operates in a decentralized manner on a distributed computer network.

Consider the legal regulation of payment in Ukraine.

Article 317 of the VR (2003) provided that the right of ownership is the right of a person to a thing (property), which he performs following the law of his or her own will, regardless of the will of others.

According to Part 1 of Art. 99 of the VR (1996); the currency of Ukraine is the hryvnia. According to item 3.3 of Art. 3 of the Law of Ukraine on Payment Systems and Funds Transfer in Ukraine (VR, 2001a), the hryvnia as a currency of Ukraine is the only legal

tender in Ukraine accepted by all individuals and legal entities without any restrictions throughout the territory of Ukraine for transfers. Moreover, according to the rules of tax law, the price means hryvnia or foreign currency.

Article 15 of the Law of Ukraine on Payment Systems and Funds Transfer in Ukraine (VR, 2001a) enshrined these units of value stored on an electronic device, accepted as a means of payment by a person other than the person who issues them, and is a monetary obligation of that executing person in cash or cashless form. Only the bank can issue electronic money. Electronic money issuing bank undertakes to repay them.

Given the norms of the legislation of Ukraine, namely the CC of Ukraine (VR, 2003), the Law of Ukraine (VR, 1999), the Law of Ukraine on Payment Systems and Funds Transfer in Ukraine (VR, 2001a) and others, the concept of "cryptocurrency" and the regulation of transactions with it do not fall under cash flow. As cryptocurrency does not exist in the form of banknotes, coins, bank account entries, it cannot be recognized as money (cash, funds, banknotes) in the interpretation of Ukrainian law and/or currency legislation. However, since cryptocurrency is not tied to a currency of any state, it cannot be recognized as a currency or legal tender of a foreign country and is not a currency value in the interpretation of currency legislation. Because cryptocurrency is not issued by a bank and is not a monetary obligation, it cannot be recognized as electronic money. The cryptocurrency lacks the features of the document and the issuer, namely, there is no established form of a document with appropriate details, which certifies monetary or other property rights, has no definition of the relationship between the issuer of the security (the person who issued the security) and the person who has the rights to the security paper, but does not provide for the performance of obligations under such security, as well as the possibility of transferring the rights to the security and rights to the security to other persons. Therefore, cryptocurrency cannot be securities. Besides, the cryptocurrency lacks the features of the document in the form of banknotes, no issuer, and no purpose of manufacturing. Thus, cryptocurrency cannot be recognized as a monetary surrogate.

Thus, cryptocurrency as a measure of value, a means of exchange and accumulation, its complex legal nature does not allow to identify it with any of the related concepts (cash, currency, currency value, legal tender, electronic money, securities, money surrogate, etc.).

Activities related to cryptocurrency buying, selling, exchanging, and converting operations have many problematic aspects. The main problems include:

- The possibility of losing money through theft; lack of guarantees regarding the return of the money invested in the cryptocurrency.

- Savings held in cryptocurrency are not guaranteed by the Deposit Guarantee Fund, as such savings are not considered bank deposits.
- The possibility of fraud.
- The complexity of using conventional methods of estimating the market value of assets in cryptocurrencies.
- Significant price fluctuations in cryptocurrencies and a lack of proper infrastructure.

Due to the uncertain status of cryptocurrency, public authorities (including law enforcement agencies, consumer protection agencies) in Ukraine have no legal basis to assist both investors and users. Therefore, there are risks of losing money and not acquiring ownership of a cryptocurrency transaction.

In view of the above, the problem of cryptocurrency proprietary rights is the lack of relevant legal rules that can be applied to cryptocurrencies.

Another problem of cryptocurrency legal regulation in Ukraine is the ambiguous regulation of cryptocurrencies in the world. It is advisable to analyze the international experience of regulating settlement transactions using cryptocurrency.

Currently, most countries in the world do not recognize cryptocurrency as a payment instrument, currency, property, virtual goods, etc., and its turnover is not regulated. States such as China, Indonesia, Thailand, Iceland, and Lebanon have banned the use of cryptocurrency. However, several progressive countries have recognized the cryptocurrency as a means of payment at the legislative level (Söderberg, 2018).

For example, in April 2017, a law came into force in Japan under which cryptocurrency was recognized as a valid payment instrument, but the Japanese yen remains the official currency. In this case, cryptocurrency exchanges are required to obtain a license and disclose information about the ultimate beneficial owners, and individuals pay income tax on the proceeds of cryptocurrency transactions (Bendixsen and Gibbons, 2018).

In the US, cryptocurrency is seen as “currency or some other form of money.” The state of Washington has recognized digital currency as the object of remittances, and the US State Commission for Futures has classified bitcoin as a commodity (Söderberg, 2018). In Norway, cryptocurrency is not recognized as real money but is classified as an asset subject to capital appreciation. The Norwegian government has made it clear that cryptocurrency business transactions are subject to sales tax. Germany has stated that it will not recognize cryptocurrency as foreign currency or electronic money but will legalize it as “personal money” or “units of account” and therefore begin taxing it. Canada and Australia recognize cryptocurrency as an intangible asset and property right. The UK is considering building its national cryptocurrency, pegged to the pound. In the Netherlands, a court recognized cryptocurrency as a type of property

(Zeldin, 2014). South Korea recognizes cryptocurrency as an asset.

It is also important to pay attention to the legal nature of cryptocurrency in the jurisprudence of the European Court of Justice. For example, consider the dispute between the Swedish tax authority and David Hedquist. Thus, D. Hedquist, through the company, wanted to provide services in the exchange of traditional currencies for bitcoin and vice versa. He sought prior tax advice to determine whether such exchange transactions were subject to VAT. According to the consultation received, transactions in the exchange of virtual currencies are exempt from VAT under item “e” Art. 135 of the EU VAT Directive, however, the Swedish tax authority disagreed with the consultation and appealed it to the Supreme Administrative Court of Sweden (EBA, 2016). On 22 October 2015, the European Court of Justice decided in Case C-264/14 about the nature of virtual currencies and bitcoin and the taxation of transactions in virtual currencies. According to the decision, unlike electronic money, virtual currencies have their accounting units, such as:

- “1 bitcoin”; bitcoin cannot be considered as “tangible property” in the sense of Art. 14 of the EU Directive, as virtual currency, can only act as a payment instrument.
- Virtual currency transfers can be made without the involvement of banks or financial institutions.
- Bitcoin virtual currency cannot be considered as a current bank account, deposit account, payment or money transfer (unlike cash checks, debit, credit instruments, Bitcoin acts as a direct payment instrument between payment entities).
- The only purpose of the Bitcoin virtual currency is to settle between the subjects of the relationship.
- Bitcoin virtual currency cannot be considered as a security or instrument that certifies the right to property (EBA, 2016).

At the same time, the aforementioned decision stipulates that, with the proper definition of virtual currencies at the legislative level, transactions with virtual currencies may be subject to VAT (for example, in the case of recognition of virtual currencies as a commodity) (EUR-Lex, 2015).

Thus, the ambiguous approach to cryptocurrencies in different countries of the world creates additional problems for determining the legal status of cryptocurrencies. This means that Ukraine needs to develop its approach to the legal regulation of cryptocurrencies, giving them special legal status, based on the current state of legislation and economic development of the country.

Currently, bills on the legal status and circulation of cryptocurrencies have been registered with the Verkhovna Rada. Draft Law No. 7183 On the Circulation of Cryptocurrency in Ukraine (VR, 2017) stipulates that cryptocurrency is a program code (a set of characters, numbers, and letters), which is the subject of a property right, which can act as a mine, the information of which is entered and stored in the

blockchain system, as accounting units of the current blockchain system in the form of data (program code). The draft also states that cryptocurrency is subject to general rules that apply to private property rights, and cryptocurrency transactions are subject to general provisions on a mining agreement, following the legislation of Ukraine. However, the above-mentioned bill needs further elaboration, since it is necessary to provide the definition and legal status of cryptocurrency as a special object of civil legal relations. At the national level, there is a need to develop programs for the introduction of special software, which will enable the circulation of cryptocurrency. Also, cryptocurrencies should undoubtedly be subject to taxation, which will create additional revenues for the State Budget of Ukraine.

5. Discussion

The study identified the problematic aspects of proprietary rights in the field of cryptocurrency transactions, as well as analyzed the international experience and suggested ways to solve and regulate cryptocurrency. Thus, the cryptocurrency market in Ukraine exists and develops at a breakneck pace, but unfortunately, there is no mechanism for its state regulation. The problematic aspects of proprietary rights in the field of settlement transactions using cryptocurrency and the ways to solve are presented in Table 1.

Table 1: The problematic aspects of proprietary rights in the field of settlement transactions using cryptocurrency and the ways to solve

Problematic aspects of proprietary rights in the field of settlement transactions using cryptocurrency	Ways to solve
1. It is difficult for banks and financial institutions to control the operations for the issuance, circulation, and use of cryptocurrency.	1. Legislatively consolidate the definition of cryptocurrency as a currency, namely as one of the non-issuer currencies, with a corresponding extension of the world currency classification.
2. Unable to withdraw payments.	2. To establish the main regulator of the relations arising in the process of circulation, settlement, and use of cryptocurrency by the National Bank of Ukraine.
3. When a special password is lost, cryptocurrency becomes unavailable.	3. Establish business licensing that is directly related to the use and circulation of cryptocurrency.
4. There is no provision for virtual funds.	4. Introduce a system of taxation for mining miners on preferential terms.

6. Conclusion

Due to the increase in transactions using virtual currency and foreign experience in the subject matter, the legal status of cryptocurrency requires legislative regulation. The unsettled nature of this issue in Ukraine is reflected in the practice of handling various types of cryptocurrency, including in the field of settlement transactions. Thus, there is a need to develop regulations on the example of other countries that freely circulate and calculate cryptocurrency, because the use of cryptocurrency to pay for services and goods enhances business opportunities, enables payments for services and goods, and, in general, meets the requirements of the time.

Compliance with ethical standards

Conflict of interest

The authors declare that they have no conflict of interest.

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