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# Legal aspects of cryptocurrency's circulation: international experience and possibilities of its application in Ukraine

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## Abstract

Based on documentary scientific methodology, the legal aspects of the circulation of cryptocurrencies in Ukraine and other countries of the world are analyzed. The relationship between the state's level of economic development and the level of its interest in cryptocurrencies is demonstrated. It was shown that almost all successful states can create and implement their own cryptocurrency. In addition, it was noted how important the issue of choosing the proper form of legal regulation of the cryptocurrency industry is today. For example, many researchers and experts have emphasized that a kind of compromise must be reached on issues related to the legal regulation of cryptocurrencies. It is therefore concluded that this applies to both the sphere of domestic and international law, where clarity, transparency and unambiguousness of legal norms must prevail. Regarding the latter, it is clarified that cryptocurrencies should no longer exist as a shadow source of income for unidentified individuals. Instead, they should be completely banned and eliminated in both the economic and legal fields, or they should be legalized and regulated by current legislation.

**Keywords:** cryptocurrency; legal regulation; international experience; legislative support; state policy.

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## Aspectos legales de la circulación de criptomonedas: experiencia internacional y posibilidades de su aplicación en Ucrania

### Resumen

Con base a metodología científica de tipo documental se analizan los aspectos legales de la circulación de criptomonedas en Ucrania y otros países del mundo. Se demuestra la relación entre el nivel de desarrollo económico del estado y el nivel de su interés en las criptomonedas. En particular, se demostró que casi todos los estados exitosos pueden crear e implementar su propia criptomoneda. Además, se señaló cuán importante es hoy en día el tema de elegir la forma adecuada de regulación legal de la industria de la criptomoneda. Por ejemplo, muchos investigadores y expertos han enfatizado que se debe llegar a una especie de compromiso en cuestiones relacionadas con la regulación legal de las criptomonedas. Por lo tanto, se concluye que esto se aplica tanto a la esfera del derecho interno e internacional, donde debe prevalecer la claridad, la transparencia y la falta de ambigüedad de las normas jurídicas. Con respecto a esto último, se aclara que las criptomonedas ya no deberían existir como una fuente de ingresos en la sombra para las personas no identificadas. En cambio, deberían ser completamente prohibidos y eliminados tanto en el campo económico como legal, o deberían legalizarse y regularse por la legislación vigente.

**Palabras clave:** criptomoneda; regulación legal; experiencia internacional; apoyo legislativo; política de Estado.

### Introduction

The modernization of the economic sector is primarily related to information technologies, which are essentially objects of intellectual property rights and are designed to improve it by adapting to the growth rate and the nature of demand from users of such a system. Thus, the introduction and further application of information technologies in the, for example, banking sector aim to expand the range of users (customers), maintain the competitiveness of the bank, attract foreign investment, and increase the reputation of the banking sector of Ukraine abroad. Trying to reach a new level of economic relations, institutions are actively implementing information know-how in the main aspects of their activities (Gramatsky *et al.*, 2020).

There are currently countries in the world that have introduced the legal regulation of cryptocurrency's circulation in any form into their own national systems. Thus, such states include economically developed Asian countries,

such as Japan, Singapore, Thailand, South Korea, and others. Most of the indicated Asian countries have either recognized any cryptocurrency (for instance, bitcoin) as a legal payment instrument or allowed cryptocurrency payments only under certain conditions. Instead, most countries in Northern and Western Europe have refused to simultaneously recognize any of the cryptocurrencies as a legal payment instrument. Instead of this, they have chosen the path of gradual adoption and gradual introduction of the rules and regulations for the use of cryptocurrencies.

Details and individual specifics of using cryptocurrencies by each state are different. In particular, we note that some countries although have not recognized cryptocurrencies as a legal payment instrument, but at the same time have received certain rights and certainty in the legal field. Given the extremely high relevance of the problems and issues addressed in this article, a lot of attention of scholars was paid to their research.

Topicality of the research is determined by: firstly, the need of cryptocurrency market functioning in the legal field, which will unify understanding of the legal nature of cryptocurrency by all subjects of currency legal relations, public authorities, business entities, individuals; secondly, the need to harmonize Ukrainian legislation governing the cryptocurrency market with European considering Ukraine's European integration course; thirdly, the importance of balancing interests of state and interests of cryptocurrency market participants; fourthly, the need for timely prevention, detection and response to the commission of offenses in the field of cryptocurrency circulation, which are carried out using the latest information technology; fifthly, the need to expand the client base of financial institutions at the expense of individuals who prefer to use cryptocurrencies to pay for goods and services (Ivaniuk, 2021).

## **1. Purpose and objectives of the research**

The purpose of this article is based on the recognition of the growing importance of cryptocurrencies in society, especially in its financial and accounting sphere. Therefore, it is planned to analyze and compare currently existing ways and methods of legal regulation of cryptocurrencies' circulation in different world countries and to find the legal regime of circulation and use of cryptocurrencies among them, which would better interact with the domestic realities of today.

## **2. Methodological basis of the research**

The methodological basis of the article consists of modern methods of scientific cognition, which are currently used while conducting research. The authors of the article have combined generally scientific and special methods in order to best achieve the purpose set in the article. All methods have been used in conjunction and complementarity that ensured the objectivity of the conclusions.

The formal and legal method has been used while studying scientific sources focused on the problems of legal regulation of cryptocurrencies in various foreign countries. It is through the analysis of different scientific points of view, in particular regarding the legal regulation of cryptocurrencies, the authors were able to rethink the issue raised in the article more thoroughly.

Applying the hermeneutic method, the texts of scientific works in the field of legal regulation of cryptocurrencies in Ukraine and some foreign countries of the world have been interpreted. The authors have also clarified the relationships between the norms explaining the essence and certain norms concerning the legal field of cryptocurrency's circulation.

The analytical method has been used in the analysis and substantiation of some theoretical authors' positions, for example, it is advisable to use the experience of European rather than Asian countries during the improvement of Ukrainian legislation in terms of legal regulation of cryptocurrency.

The deduction method has assisted to study the relationship between amendments at the international level and their possible implementation in the legislation of Ukraine in regard to legal regulation of cryptocurrency. This method has been used mainly in conjunction with the comparative and legal method, which provided the identification of common and distinctive features of legal regulation of cryptocurrency activities and its circulation. The authors have compared the positions of different states on the legal regime of cryptocurrencies in order to identify advantages, disadvantages, risks and perspectives for the development; have suggested favorable ways to integrate international experience into Ukrainian practice.

## **3. Results and discussion**

There are generally accepted views on cryptocurrency as a thing (a mean of financial arrangement) in the scientific and legal environment, which sooner or later should be the subject to proper legal regulation.

Cryptocurrencies are a completely new economic and legal phenomenon, different from traditional fiat or electronic money. One of the current

tendencies in the development of information technology is the spread of cryptocurrencies (Kaznacheyeva and Dorosh, 2020). One of the first and most well-known cryptocurrency is bitcoin. The bitcoin wallet software can operate with any number of addresses, or each address can be served by a separate wallet (Nosov and Manzhai, 2021). However, the world has not formed so far, a stable terminology and unified approaches to the definition, regulation, economic and legal substantiation for the use of cryptocurrencies. Cryptocurrencies are decentralized convertible digital currencies based on mathematical principles that are generated and managed automatically by software. Blockchain technology has become widespread in parallel with the introduction of cryptocurrency. The most popular cryptocurrency in the world – bitcoin is functioning based on such technology (Kaznacheyeva and Dorosh, 2020).

Researchers are actively discussing the path that Ukraine should chose regarding its possible methods and ways of legal regulation of public legal relations in the field of cryptocurrency's circulation. Domestic researchers and scholars having such discussions often refer to the experience of their foreign colleagues. They are interested in countries that have already made or are currently making significant successful changes in this direction especially in the context of legal regulation of the circulation and use of cryptocurrencies (Cvetkova, 2018). Discussions are currently underway regarding the choice Ukraine should take in the area of cryptocurrency's legal regulation. Namely, whether it should be the model of legal regulation and the state's attitude to cryptocurrencies that take place in the countries of East and South Asia, or Ukraine should be in line with its European and North American allies and partners. In order to better understand the choice that Ukraine should make in the nearest future, first of all represented by its leading researchers and scholars, and later represented by its state and political leadership, it is necessary to consider in detail the nature and characteristic features of models of legal regulation of cryptocurrencies, which take place in different, mostly economically developed countries of the world (Papantoniou and Hilton, 2021).

Having studied the economic and legal characteristics of economically successful Asian countries, researchers state that one of the characteristic features of these countries is their innovation nature and desire to be "leaders in everything". Of course, the desire to succeed in various spheres of public life is inherent in many (if not all) countries. However, such a desire is observed among the above-mentioned Asian countries more strongly than among others. Thus, it is noted that the high thirst for innovation motivates the "economic tigers" of Asia to actively implement the norms of legal regulation of those spheres of public life that have not been regulated anywhere else in the world yet. It is also pointed out that besides the experience of official use and legal regulation of cryptocurrencies, the indicated countries have already proven their success as world leaders in

the field of economic, cultural, and legal innovations (Sadok and Maknouzi, 2020). Singapore, already mentioned above in this article, is one of the leading countries in the context of Ease of Doing Business and economic prosperity. Taiwan and South Korea are close to Singapore within the world economic and business rankings.

Summing up the essence and specific nature of the functioning of economic, legal, and other sectors of society in Asian countries, one can argue that they have no peers in their drive to break records in various spheres of life sustaining activity. However, at the same time, we note that the speed of implementing certain changes or innovations does not always mean their quality and usefulness to society. On the contrary, careless reforms or innovations that have been introduced into the existing system in a particular area of public life without taking into account the specifics of the region can be extremely harmful (Gómez *et al.*, 2020). Although some of the achievements of Asia's economic and political "giants" can be truly impressive and fascinating, they are not the product of a coherent and integrated organization of society, but rather the result of separate, not related to each other political and economic manifestations.

Having studied European countries, we observe that certain innovations (including cryptocurrency) are trying to introduce into society more harmoniously. Revealing this statement in detail, we note that most of developed Western countries pay not so much attention to the speed of carrying out reforms or to introduce a new object of public legal relations, but to maintain existing harmony in society without violating it (Chandy and Bhardwaj, 2020). Thus, before officially recognizing a cryptocurrency or several of them, politicians and, above all, legislators of European countries will study and analyze whether their relative social harmony, which is expressed by the stability and prosperity of the financial system among other things, suffer from negative consequences in case of recognition of cryptocurrency. On this basis European countries have set a course for the gradual official recognition of cryptocurrencies and their legal regulation. European countries independently decide on the degree of recognition or regulation of a cryptocurrency in the country.

Thus, some EU Member States recognize cryptocurrency as an unofficial, but not prohibited mean of financial payments. And cryptocurrency in some other EU Member States has the official status of a legal payment instrument (Garcia-Teruel, 2020). It should be also noted that considering the degrees of legal regulation of cryptocurrencies in different European countries, researchers have concluded that they directly depend on which legal family a particular country specifically belongs to. For example, it is a well-known and proven fact that countries belonging to the Romano-Germanic legal family are traditionally more prone to codified or non-codified legal regulation of certain processes. Accordingly, this state of



affairs has not bypassed the legal regulation of cryptocurrency's circulation. It is expected that we will see a significant increase of legal acts in the next few years aimed at global and at the same time detailed legal regulation of cryptocurrency's circulation (Pahl *et al.*, 2019).

In addition, countries that are part of the Anglo-Saxon or it is also called Anglo-American legal family do not likely have such a large scope of codified and non-codified regulatory legal acts. Instead, given the fact that the states belonging to this legal family have strong traditions of the legal system and a large number of court precedents, which mean a number of court decisions made by courts of different instances at a certain period of time, which establish the features of legal "behavior" (regulation) in any particular sphere of public life, they also have significant success in resolving relations whose object is a cryptocurrency. Therefore, based on the differences between the legal systems of Western countries, which were identified and emphasized as a result of the above consideration, we note that Ukraine, which, according to the generally accepted view of the vast majority of lawyers, is part of the Romano-Germanic legal family, which is characterized by the strong and comprehensive codification of written sources of law in almost all spheres of public life, should follow the examples of those countries that are also part of the Romano-Germanic legal family.

Despite some useful elements in the effective organization of the functioning of a particular area of public legal relations (including the circulation of cryptocurrencies), which take place among the countries of the Anglo-American system, which includes the United Kingdom, the United States, Canada and some other countries that were colonies of the former British Empire and now part of the British Commonwealth, their traditions, which are based more on precedents than on elements of written law (Crompton and Jensen, 2018), are not useful for Ukraine. After all, Ukraine has been building a legal system for many past centuries with regard to the states of the Romano-Germanic legal family. Among other things we can single out the period when the Ukrainian lands were under the rule of the Russian Empire. At that time, when building own branches of law, including civil, criminal, and administrative, the rulers of the Empire of that period took as an example mostly German states, especially Prussia, as well as France and Austria (Montes and Goertz, 2018).

Taking into account the problems and issues that domestic and foreign lawyers have when they begin to consider options (methods and ways) to implement legal regulation of cryptocurrencies' circulation in Ukraine, we note that discussions about this are in most cases reduced to statements about the possibility or impossibility to introduce certain innovations into the domestic system, taking into account its specifics and many local subtleties. Instead, we consider it appropriate to note that in response to such statements, researchers, whose opinion we fully agree, state that the



successful solution to the above problem will be the reform of the domestic specifics and the legal system in the whole.

Revealing the above, we state that “domestic specifics” and “local features” are often understood as low overall efficiency of the Ukrainian state system and its inability to effectively respond to the threats and challenges of the present time. This inefficiency and “non-viability” of state authoritative mechanisms of the country is supported by a high level of corruption in any form, which prevents the country and Ukrainian society from being properly developed, forcing citizens to continue living and functioning under old and ineffective “rules of the game” (Dimitropoulou *et al.*, 2018). The mentioned corruption, in turn, is a fairly broad and pervasive phenomenon within domestic society, covering almost all spheres of daily life. It can exist and still successfully exists in the form of nepotism, stealing state and local budgets (embezzlement), receiving illegal benefits by statesmen and other criminal acts (Lin *et al.*, 2018).

Foreign researchers considering all those facts insist that Ukraine should conduct systematic and high-quality work on reforming all, without exception, government mechanisms, as well as that they will be fully cleansed of corruption schemes. With regard to the latter, it has been noted that in order to clean up government agencies and departments from corruption crimes, we must carry out a full and objective lustration of persons about whom information is legally confirmed in their illegal activities while holding state positions. Appropriate conditions must be created for the fair certification of new and current staff within state agencies for the gradual and high-quality cleansing of the state system from low efficiency and past atrocities.

All the above changes are of great importance to understand how the legal regulation of cryptocurrency's circulation can be potentially effective in Ukraine, if it is introduced in the country (McGinn *et al.*, 2018). Thus, the country urgently needs to achieve the right balance in terms of harmony and stability of state mechanisms and institutions' functioning, but at the same time to provide appropriate conditions for further positive development of the state, especially in the field of new technologies, which include cryptocurrencies. Because we must remind that the stability of any legal relations in a particular area without timely development and the necessary improvement will quickly turn into stagnation and decline. Therefore, considering all the challenges and needs of today, we state that no country in the world can be currently effective and powerful, if it does not pay enough attention to its own capabilities in the field of high technologies (Ochiai *et al.*, 2018).

Cryptocurrencies are certainly an integral part of the high-tech industry and the guide of the country in the future. Besides, it is impossible to disagree with the points of view that cryptocurrencies will function in the

world financial systems in the nearest future on a par with the current, official national currencies of different countries. There are even theories in the scientific community that cryptocurrencies can eventually completely replace existing currencies and thus completely reformat the entire world system of financial and monetary arrangements. In this regard it should be noted that the countries of the world, including Ukraine, need to properly prepare for possible changes in the future and start working to improve domestic legislation so that it allows effective legal regulation of cryptocurrencies' circulation, allowing the latter to fully demonstrate its enormous benefit to society.

It should be emphasized that the purpose of the state and its lawyers, as well as domestic legislators, should be not only the adaptation of domestic legal norms for the proper introduction of circulation and use of cryptocurrencies in Ukraine (Li *et al.*, 2017). Instead, it is recognized that the work on improving the national legal base should be broader and include all the conditions necessary to increase the scope and pace of the development of domestic scientific and technological sector of the economy. It is applied to the high-tech industry as part of the scientific and technical sector of any country. It has been emphasized that the development and effective implementation of technologies into society will assist the latter to remain effective (Brambilla *et al.*, 2016).

## **Conclusions**

Cryptocurrencies have every chance to become the main financial and accounting currencies around the world in the nearest future. In this regard researchers insist that the necessary qualitative reforms in the field of legal regulation of the circulation and use of cryptocurrencies will be carried out in Ukraine as soon as possible. Taking into account the results of scientific and legal discussions between researchers and scholars, we emphasize that scholars have chosen the example of Western allies and partners of Ukraine in choosing the direction of the development and adaptation of domestic legislation to the realities and challenges of the present day. It has been determined that the option of carrying out reforms in line with the model of some economically developed countries in Asia is not acceptable. Despite some impressive achievements of those countries in terms of innovations in business and economics, we note that their ability to rapidly introduce innovations is not common to the Ukrainian state system.

European countries in contrast to Asian countries are gradually introducing the circulation of cryptocurrencies. It has been indicated that they first remove the circulation of cryptocurrencies from the criminal and legal field, later they allow the use of cryptocurrencies as one of the alternative

currencies for certain types of financial and accounting operations. And finally, they officially recognize any cryptocurrency as a legislative payment instrument. The quality and speed of all necessary changes and adaptations to the circulation of cryptocurrencies depends on the prosperous status of Ukraine in terms of further development of the global financial system.

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