

CYBER ECONOMY AS A NEW FORM OF ECONOMIC RELATIONS: ESSENCE, STRUCTURE, AND MECHANISMS OF FUNCTIONING

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Abstract. *In the conditions of active digitalization of the economy, the development of the economy, the development of the cyber economy as a new form of economic relations acquires particular relevance. The article examines the essence of the cyber economy, its structure, and key mechanisms of functioning. The influence of digital technologies on the transformation of economic processes and forms of interaction between market participants is analyzed. Special attention is paid to the advantages and risks of the global digital environment, including the use of such instruments as Bitcoin.*

Keywords: *cyber economy, digitalization, digital economy, blockchain, electronic payments, digital platforms, economic relations.*

INTRODUCTION

The modern stage of social development is characterized by deep and accelerated digital transformation, which affects almost all spheres of socio-economic life. Digitalization becomes not just a technological process, but a systemic factor in changing the structure of the economy, entities. As a result, traditional economic models are gradually giving way to new digital formats based on data, automation, and global network integration.

Under these conditions, the cyber economy is being formed—a new form of economic relations based on the use of information and communication technologies, digital platforms, big data, and virtual assets. It represents a more complex and flexible system compared to the traditional economy, as it functions in conditions of high speed of information exchange, global interconnection of markets, and constant technological renewal. The cyber economy covers a wide range of areas: electronic commerce, digital financial services, platform ecosystems, automated management systems, and the use of artificial intelligence (AI) in economic processes.

A feature of the cyber economy is that the key resource becomes not only material assets, but also information, data, and digital technologies. This leads to a change in the structure of value added, where a significant part is created through the processing and analysis of data, and not only through the physical production of goods. The relevance of this topic is conditioned by the need for a comprehensive scientific understanding of the cyber economy as an independent economic phenomenon. Its development has a significant impact on the global economic system, transforming markets, business models, and

mechanisms of state regulation. In addition, the cyber economy forms new challenges related to cybersecurity, digital inequality, and legal regulation of the digital environment.

The purpose of the study is to reveal the essence of the cyber economy, determine its structure, and analyze the main mechanisms of functioning in the conditions of modern digital transformation of the global economy.

RESEARCH METHODS

In the process studying the cyber economy as a new form of economic relations, a complex of general scientific methods was applied, allowing the problem to be considered from different sides and ensuring the reliability of the conclusions obtained.

An analysis of scientific literature was used, including works on the digital economy, cyber economy, financial technologies, and modern models of economic development.

A comparative-analytical method was applied, by it, a comparison of the traditional and digital (cyber) economy was carried out.

The systems approach was of great importance, which made it possible to consider the cyber economy as an integral system including interconnected elements: subjects, objects, and digital infrastructure.

The method of generalization of theoretical data was used, on basis of which conclusions were formed about the essence, structure, and prospects for the development of the cyber economy in the conditions of global digitalization.

ESSENCE OF THE CYBER ECONOMY

The cyber economy is a modern system of economic relations that is formed and functions in a digital environment on the basis of the wide use of information and communication technologies. Its essence lies in the transition of economic activity into virtual space, where the main processes-production, exchange, distribution, and consumption-are carried out with the help of digital platforms and automated systems.

An important feature of the cyber economy is the virtualization of economic processes, in which a significant part of interaction between market participants takes place online. This makes it possible to considerably accelerate the exchange of information, simplify transactions, and increase the overall efficiency of economic activity. Unlike the traditional economy, the cyber economy is based on data as the main economic resource. Information becomes the basis for decision-making, the information of market strategies, and the creation of value added. Economic operations in such conditions are carried out almost in real time, and geographical and temporal limitations gradually lose their significance, which strengthens the global nature of economic relations.

The development of the cyber economy is directly connected with the introduction of advanced technologies, among which blockchain, artificial intelligence, cloud computing, and big data occupy a special place. These technologies ensure the transparency of economic operations, increase the level of trust between market participants, and also contribute to the automation and optimization of business processes.

Thus, the essence of the cyber economy lies in the formation of a new digital model of the economy, in which information and technologies become the main factors of development and competitiveness.

STRUCTURE OF THE CYBER ECONOMY

The cyber economy represents a complex multi-level system that includes interconnected elements ensuring the functioning of economic processes in the digital environment. Its structure is formed under the influence of technologies and is based on the interaction of three key components: subjects, objects, and digital infrastructure.

The subject of the cyber economy are participants of economic relations who carry out activities in the digital space. These include state bodies regulating and controlling the digital economy, business structures creating and providing digital products and services, as well as end users. Of particular importance are transnational technological companies, which form global digital ecosystems and affect a significant influence on world markets. Examples of such companies are Amazon and Google, which play a key role in the development of the platform economy and digital services. The digital infrastructure of the cyber economy represents the technological basis of its functioning. It includes the Internet as a global network of interaction, cloud technologies for storing and processing data, blockchain systems to ensure transparency and security of operations, as well as digital platforms that ensure interaction between all participants of economic processes.

The structure of the cyber economy forms an integral system in which all elements are interconnected and ensure the stable functioning of the digital economic environment.

MECHANISMS OF FUNCTIONING OF THE CYBER ECONOMY

The functioning of the cyber economy is based on the use of modern digital technologies that ensure automation, acceleration, and increased efficiency of economic processes. Unlike traditional models of the economy, here the key role is played not by the physical interaction of participants, but by the digital environment in which the main operations take place.

One of the main mechanisms is electronic payment systems, which ensure the execution of financial transactions in real time. They make it possible to quickly and securely transfer funds between participants of economic relations without the need to use cash or intermediaries. An important role is also played by digital platforms, which unite producers, consumers, and intermediaries into a single economic ecosystem. Such platforms provide convenient access to goods and services, and also contribute to the formation of new business models based on network interaction.

An integral mechanism of the cyber economy is algorithmic management, in which economic decisions are partially or fully made using software algorithms and artificial intelligence (AI). This makes it possible to optimize processes, reduce costs, and increase forecasting accuracy. Smart contracts are also actively developing, representing automated digital agreements that are executed when predetermined conditions are fulfilled. They reduce the need for intermediaries and increase the transparency of transactions.

System of online payments and electronic transfers, ensuring the instantaneous movement of capital on a global scale, are of great importance. Due to this, financial operations become faster and more accessible. Additionally, an important mechanism of the functioning of the cyber economy is the use of big data and artificial intelligence, which make it possible to analyze market trends, forecast demand, assess consumer behavior, and make more effective managerial decisions.

ADVANTAGES AND RISKS OF THE CYBER ECONOMY

The cyber economy possesses a number of significant advantages that determine its rapid development and expansion on a global scale. First of all, it ensures a high speed of economic operations, which makes it possible to significantly accelerate the processes of exchange, production, and distribution. The use of digital technologies contributes to the reduction of transaction costs by decreasing the role of intermediaries and automating many procedures.

In addition, the cyber economy expands the access of markets participants to global economic system. Thanks to digital platforms, companies and consumers can interact regardless of geographical location, which strengthens international integration and competition. The efficiency of managing economic processes also increases due to the use of analytical tools, automation, and digital monitoring.

However, along with advantages, the cyber economy is accompanied by a number of significant risks. One of the most serious is the threat of cyberattacks aimed at disrupting the operation of digital systems, stealing data, or financial resources. The problem of leakage of personal and corporate information also remains relevant, which can lead to substantial economic losses and a decrease in trust in digital technologies.

An additional risk is the high dependence of economic systems on digital infrastructure. Failures in the operation of technologies or networks can lead to disruption of the functioning of entire sectors of economy. Of particular importance is the problem of digital inequality, in which different countries, regions, and social groups have unequal access to modern technologies. This increases economic differentiation and limits opportunities for balanced development.

PROSPECTS FOR THE DEVELOPMENT OF THE CYBER ECONOMY

The prospects for the development of the cyber economy are directly connected with the further deepening of digitalization processes and the active introduction of innovative technologies into all spheres of economic activity. It is expected that in the coming years a key role will be played by the expansion of the use of AI, which will make it possible to automate economic decision-making, increase forecasting accuracy, and optimize resource management.

Automated management systems based on the processing of large volumes of data in real time will receive significant development. This will lead to increased efficiency of business processes and acceleration of the response of economic subjects to changes in market conditions. A separate direction will be the further spread of digital currencies and the development of new forms of financial instruments functioning on the basis of

blockchain technologies. This will contribute to the transformation of the global financial system and the reduction of dependence on traditional banking mechanisms.

The active development of global digital platforms is also forecasted, which will unite producers, consumers, and intermediaries into a single economic ecosystem. Such platforms will strengthen market integration, simplify access to goods and services, and create new forms of interaction between economic participants.

An important direction in the development of the cyber economy will be the improvement of the system of state and international regulation of the digital environment. This is necessary to ensure the transparency of economic processes, the protection of user data, and the increase of the level of cybersecurity. The formation of unified rules and standards will make it possible to reduce risks and create a more stable digital economic system.

PROBLEM AND CHALLENGES OF THE CYBER ECONOMY

Despite the rapid development and expansion of areas of application, the cyber economy faces a number of serious problems and challenges that limit its stable functioning and require comprehensive solutions.

One of the key problems is ensuring cybersecurity. In the conditions of digitalization, the risk of unauthorized access to data, cyberattacks, hacking of information systems, and leakage of confidential information increases. This creates a threat both for individual users and for large economic structures and state institutions. An important challenge remains the legal regulation of digital economic relations. The legislative framework in many countries does not keep pace with the rapid rates of technological development, which leads to legal gaps in the sphere of digital transactions, the use of digital assets, and the functioning of online platforms. The absence of unified international standards also complicates the regulation of the global cyber economy.

An additional problem is the high dependence of the economy on digital systems and infrastructure. Disruptions in the operation of servers, software, or communication networks can lead to failures in the functioning of entire sectors of the economy. This makes economic systems vulnerable to technical failures and large-scale cyberattacks.

In addition, challenges include digital inequality, an insufficient level of digital literacy of the population, and limited access to modern technologies in certain regions, which increases socio-economic differentiation.

CONCLUSION

The cyber economy represents a new stage in the evolution of economic relations, formed under the influence of digitalization processes and the widespread introduction of information and communication technologies. It is based on the use of data and digital technologies as key resources determining the efficiency and competitiveness of the modern economy.

The conducted analysis shows that the cyber economy significantly transforms traditional economic models, making them more flexible, faster, and globally integrated. It changes the nature of interaction between economic subject, reduces transaction costs,

and expands opportunities for participation in the global economic system. At the same time, the development of the cyber economy is accompanied by a number of serious challenges. These include issues of cybersecurity, the need to improve legal regulation, as well as problems of social and digital inequality. These factors require a comprehensive approach to the management of the digital economy.

Thus, it can be concluded that the successful development of the cyber economy is possible only if a balance is ensured between technological progress, effective legal regulation, and a reliable system of digital security. It is this balance that forms the basis for the sustainable development of the economy of the future.

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