

PROBLEMS AND PROSPECTS OF DIGITALIZATION IN THE FIELD OF ECONOMY. THE CONCEPT OF DIGITAL ECONOMY AND DIGITALIZATION

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Abstract

This article analyzes the main trends of the digital economy, explores perspectives on economic digitalization, and highlights the concepts of digitalization of the economy as well as the processes of digital transformation.

Keywords

digitalization, information technology, digital economy, digital transformation, digital technologies, network.

Introduction

Digitalization of the economy is the widespread implementation of digital technologies in economic activities. This phenomenon is associated with the rapid development of information technology, microelectronics, and communications in most countries of the world. The digitalization of the economy is a global process. Advanced production technologies (APT), end-to-end information technologies, neurotechnologies, the Internet of Things, and artificial intelligence are driving its development.

There are multiple approaches to defining the concept of the “digital economy.” According to the World Bank, the digital economy is a system of economic, social, and cultural relations based on the use of digital information and communication technologies. In the “Digital Economy” and the “Strategy for the Development of the Information Society until 2030” programs, the digital economy is defined as a means of increasing the efficiency of the modern economy primarily through data processing technologies and the automation of all processes.

The digital economy is characterized by a holistic, systematic, and complex challenge of finding a model of human interaction corresponding to the technologies of the Fourth Industrial Revolution—that is, digital technologies and other high technologies of the 21st century. In shaping, developing, and implementing this model, it must ensure the achievement of objectively defined goals.

Analysis and Results

Current globalization processes show that one of the main trends of the digital economy is the digital payment system and the platform of electronic tools that can be used in any type of settlement. First of all, within the concept of "digital transformation," there are many terms with different interpretations. Some of them are examined below:

- **Digitization** is the conversion of information from "physical media into digital form." Within the framework of digitization, the quality and content of the information do not change; it is simply converted into an electronic form for digital processing, which makes it possible to improve existing business processes by adding data in a digital format. If we classify this approach, it can be associated with the Third Industrial Revolution, which lasted from 1969 to 2010.

- **Digitalization** initially means creating a new product in digital form. Therefore, the main difference of digitalization is the creation of a new innovative product with new functionality and consumer characteristics. While digitization is primarily aimed at improving existing business models and changing business processes, digitalization provides opportunities for significant achievements in business and the acquisition of new competitive advantages. At present, digitalization has already become an integral element of the Fourth Industrial Revolution (Industry 4.0).

Digitalization, in turn, is a process aimed at digitizing all information and material resources (creating digital copies) and forming platforms for network interaction in order to obtain a predictable and guaranteed result for any management action through the use of automation tools.

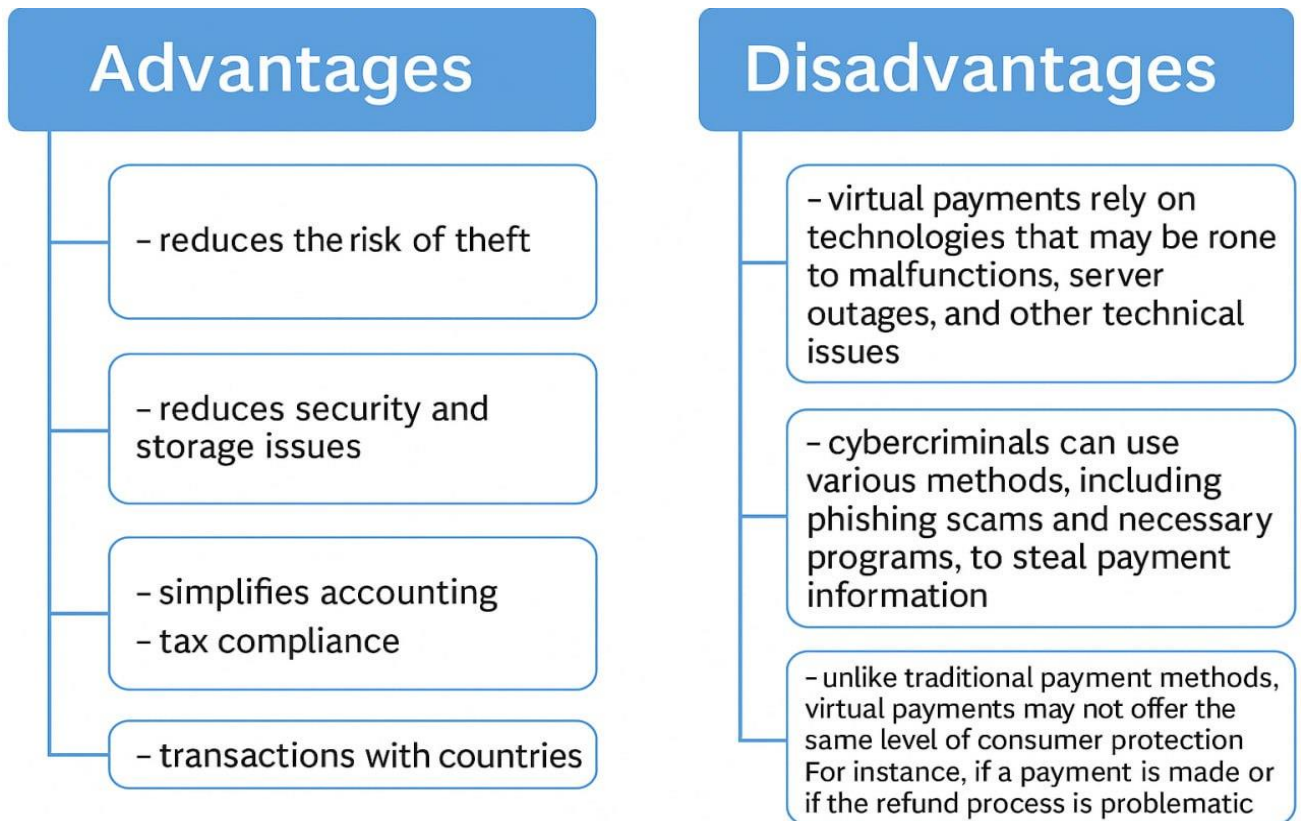
- Experts from the **Boston Consulting Group**, in their report "*Russia 2025: From Staff to Talent*", consider digitalization as "the use of online opportunities and innovative digital technologies by all participants of the economic system – from individuals to large companies and states."

- According to academician **S. S. Gulyamov**, the digital economy is defined as the collection of large volumes of data (*big data*) through the Internet and mobile technologies, their processing with the help of digital technologies, and, on this basis, the improvement of business model efficiency and the qualitative satisfaction of consumer needs by creating new patterns and knowledge.

Digital payments are payments carried out through digital or online modes without the involvement of cash exchange. Sometimes such a payment is the transfer of value from one payment account to another, where both the payer and the recipient use digital devices such as mobile phones, computers, or credit and debit cards. The payer and the recipient may be either entrepreneurs or individuals.

This means that for digital payments to take place, both the payer and the recipient must have a bank account, an online banking account, a device that allows them to make payments, and a transmission medium. In other words, they must be registered with a payment provider or intermediary, such as a bank.

For consumers and businesses, digital payments provide greater security, speed, and transparency. The payer may have a mobile phone that ensures additional authentication through fingerprint or other verification or biometric methods, which reduces risk. Digital payments also allow the recipient to collect customer data for analysis and market segmentation. This, in turn, has a significant positive impact on both the micro and macro economy of the country. The following figure illustrates the advantages and disadvantages of digital transactions.



Advantages of the Digital Economy

The development of information and communication technologies and the integration of modern technologies into our lives can bring many positive opportunities to each individual. With the advancement of digital technologies, people can access the services they need more quickly, save significant amounts of money by purchasing products online at lower prices, and gain access to a wider variety of services. For example, purchasing a book in electronic format can be much cheaper than buying its printed version. Moreover, an ordinary consumer

can become an entrepreneur by engaging in online trade from home without leaving the house.

Key advantages include:

- Increased labor productivity in production;
- Growth in company competitiveness;
- Reduction of production costs;
- Creation of new jobs;
- Emergence of new modern professions;
- Reduction of poverty and elimination of social inequality.

The Concept of Digitalization

The concept of digitalization refers to the modernization and optimization of a system or process through digital technologies and methods. Through this concept, physical or traditional processes are transformed into digital formats, making them more efficient, faster, and more flexible. The primary goal of digitalization is to modernize processes of managing, processing, and distributing data with the help of new technologies.

According to the analyses conducted by reputable international organizations, the digital economy increases gross domestic product by at least 30 percent and, at the same time, eliminates the shadow economy, says Eldor Tulyakov, Executive Director of the “Strategy for Development” Center. Turning to international practice, the digital economy today is not limited to e-commerce and the service sector but is rapidly penetrating every sphere of life – in particular, healthcare, science and education, construction, energy, agriculture and water management, transport, geology, cadastre, archives, internet banking, and many other areas – demonstrating high efficiency in each of them.

Providing electronic services and offering digital products to citizens by the state is considered the main component of the digital economy. The wide development of this sector in our country will also put an end to corruption.

Conclusion

In conclusion, the trends of the digital economy provide great opportunities for innovation, growth, and prosperity. At the same time, they require careful consideration and responsible governance to ensure that their benefits are widely distributed and their impact remains positive for all. Moreover, as the digital economy continues to expand, every individual must acquire the necessary skills and knowledge to navigate and thrive in this rapidly changing landscape.

The digital economy is a system of economic relations mediated by technological progress, global networks, and information systems. In the near future, competitive advantage will belong to companies and states with a high level

of digitalization. Already today, leading global companies are actively implementing digital tools in various sectors of the economy, financing the construction of data centers, and introducing systems for storing business operations and customer information.

Digital tools enable the integration of production with personalization, shorten the cycle from the development of an innovative idea to the sale of the finished product, and ensure effective adaptation to consumer demands. Through the implementation and development of the digital economy, it is possible to increase economic efficiency, create new opportunities, and ensure competitiveness.

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