

Theoretical aspects of the impact of digitization on economic development factors

Summary

Currently, digitalization is considered as the main influencing factor of economic development. The purpose of the article is to analyze the theoretical aspects of the impact of digitization processes on economic development factors and to determine the factors that prevent the receipt of digital dividends. Scientific literature focuses on the nature of digitalization, its industry-specific aspects, as well as factors and problems of digital transformation of the economy. At the same time, little attention is paid to the effectiveness of digitalization in terms of improving the dynamics of socio-economic processes. The article examines various aspects of digital transformation, which is the most serious tool for ensuring innovative and competitive economic development. Considering that digitalization creates new tools in the economy, increases transparency and accelerates economic development, we can evaluate the creation of business platforms as one of the biggest advantages of digitalization.

Keywords: digitization, entrepreneurship, human capital, economic development

Rəqəmsallaşma iqtisadi inkişaf amillərinə təsirinin nəzəri aspektləri

Xülasə

Hazırda rəqəmsallaşma iqtisadi inkişafın təsir edici əsas amili kimi qiymətləndirilir. Məqalənin məqsədi rəqəmsallaşma proseslərinin iqtisadi inkişaf amillərinə təsirinin nəzəri aspektlərini təhlil etmək və rəqəmsal dividendlərin alınmasına mane olan amilləri müəyyən etməkdir. Elmi ədəbiyyatda rəqəmsallaşmanın mahiyyətinə, onun sənayeyə xas aspektlərinə, eləcə də iqtisadiyyatın rəqəmsal transformasiyasının amillərinə və problemlərinə diqqət yetirilir. Bununla yanaşı, sosial-iqtisadi proseslərin dinamikasının yaxşılaşdırılması baxımından rəqəmsallaşmanın effektivliyinə çox az diqqət yetirilir. Məqalədə innovativ və rəqəbatqabiliyyətli iqtisadi inkişafın təmin edilməsinin ən ciddi aləti olan rəqəmsal transformasiyanın müxtəlif aspektlərini araşdırılmışdır. Rəqəmsallaşmanın iqtisadiyyatda yeni alətlər yaratdığını, şəffaflığı artırdığını və iqtisadi inkişafı sürətləndirdiyini nəzərə alaraq, biznes platformaların yaradılmasını rəqəmsallaşmanın ən böyük üstünlüklərindən biri kimi dəyərləndirə bilərik.

Açar sözlər: rəqəmsallaşma, sahibkarlıq, insan kapitalı, iqtisadi inkişaf

Теоретические аспекты влияния цифровизации на факторы экономического развития

Резюме

В настоящее время цифровизация рассматривается как основной влияющий фактор экономического развития. Цель статьи - проанализировать теоретические аспекты влияния процессов цифровизации на факторы экономического развития и определить факторы, препятствующие получению цифровых дивидендов. В научной литературе основное внимание уделяется природе цифровизации, ее отраслевым аспектам, а также факторам и проблемам цифровой трансформации экономики. При этом мало внимания уделяется эффективности цифровизации с точки зрения повышения динамики социально-экономических процессов. В статье рассматриваются различные аспекты цифровой трансформации, которая является наиболее серьезным инструментом обеспечения инновационного и конкурентоспособного развития экономики. Учитывая, что цифровизация создает новые инструменты в экономике, повышает прозрачность и ускоряет экономическое развитие, мы можем оценить создание бизнес-платформ как одно из самых больших преимуществ цифровизации.

Ключевые слова: цифровизация, предпринимательство, человеческий капитал, экономическое развитие.

Economic theory explores the patterns of functioning of economic systems. These systems can be formed by individual subjects or their groups. The study is carried out from the side of micro- and macroeconomics, respectively. The main task of science is to find optimal solutions to meet the needs of society in conditions of limited resources. More specific issues include the search for patterns and ways to ensure the development, effective functioning of systems, as well as creating conditions for their growth. In the modern world, the market model of economic relations prevails. In addition to the freedom of subjects, the independence of their actions, competition and the ability of systems to self-regulate, it is important to note that the main goal in such a structure of relations is to maximize one's own benefit.

The foundation for economic growth is economic development. It represents qualitative structural changes in economic life, affecting all spheres of society.

Now there is a division of countries into underdeveloped, developed and developing. The developed ones are a minority, however, they have a huge impact on the work of the global economic system, and also influence the political life of the world community. They are at the

stage of transition to a post-industrial society, where the main commodity is information. Developing countries are based on an industrial or agricultural complex. Economic development is stimulated, first of all, by the growth of material needs, that is, the desire to possess benefits that can bring maximum utility to the individual. Among the needs, it is customary to single out the basic ones aimed at ensuring the life of people. A person also needs spiritual and cultural development, which is realized through the sphere of education, recreation and leisure. A separate area of needs is luxury items or rare things. Another need of society is the need for the availability of goods for the production of new ones. The development of the economy and society are directly related to each other. The evolution of man forms new needs in him, which stimulate technical progress, the introduction of innovations in production activities. All this allows us to bring the economy to a new level of development. The needs of society can die off, which leads to a redistribution of the balance of needs within a particular community. Society consists of individuals and the relationships that arise between them. Interaction creates an increase in needs that shape the needs of society. As a result, the current level of economic development becomes irrelevant. [5]

That is, the basis of economic development is the desire to meet the needs of society, subject to the limited resources available.

Human impact on economic development In order to meet the needs of society, it must be remembered that it is a combination of interests of each citizen of the state separately. Each subject wants to get the maximum benefit within the finiteness of resources. The competitive struggle between them creates an economic imbalance. In order to meet the needs of each of the participants, it is important to find alternative solutions. In market relations, subjects act separately, focusing only on their own goals and interests. Customers want utility, entrepreneurs want income, and the state wants to ensure the well-being of its citizens. Economic theory defines the main factor of economic development in the rationality of economic decisions, in economics, in addition to the human factor, a number of macroeconomic values are distinguished that affect the economic development of the total national wealth, expressed in natural, industrial, social and human capital:

- availability of natural resources and climatic conditions;
- convenience of the territorial location;
- the level of technical equipment;
- science intensity of industries;
- standards of living;
- total income of the manufacturing sector; social and political life of societies [2]

The main factor influencing economic development is people. There are also a number of factors that can influence structural changes in the economy and create conditions for economic stability and growth.

In the process of the impact of the digital economy on economic growth, digitalization is recognized as one of the most significant manifestations of innovative development. Digitalization is the dominant process in almost all sectors of the economy among all manifestations of scientific and technological progress. This is because faster digitization processes are happening much than previous technological revolutions. [6]

Digitalization is now seen as a leading factor in economic development. At the same time, the dynamic development of information infrastructure in the regions, the increase in access to broadband Internet for the population and business are not accompanied by adequate changes in the indicators of economic growth. The purpose of the paper is to analyze the impact of digitalization processes on the social and economic development of the regions and to identify factors that prevent the receipt of digital dividends. The scientific literature focuses on the essence of digitalization, its industry-specific aspects, as well as the factors and problems of the digital transformation of the economy. At the same time, much less attention is paid to the effectiveness of digitalization in terms of improving the dynamics of socioeconomic processes. Most authors note the significant impact of digitalization on regional development, however, the studies revealed that there is no significant relationship between the level of digitalization of enterprises in the region and the dynamics of its socio-economic development. This situation is due, first of all, to the low level of investment and innovation activity of enterprises in the regions, as well as to the insufficient use of digital business models.

Digitalization is one of the key directions in the development of the world economy, which is currently considered as a significant factor in improving economic dynamics. The increase in efficiency is achieved through the transition to a new technological level of enterprises in almost all sectors of the economy, as well as the introduction of innovative methods of interaction with partners [1]. Improving the efficiency of state and municipal government is ensured by reducing barriers in the interaction of government, business and civil society [2]. The transition to a new level of interaction of all subjects of the digital economy is ensured by the appropriate level of development of the information infrastructure. In this regard, the development of technologies and infrastructure of the digital economy are among the main tasks of state policy.

The scientific literature focuses on the essence of digitalization, its industry-specific aspects, as well as the factors and problems of the digital transformation of the economy. Thus, in [3], digitalization is considered as an accelerating expansion of the Internet as a

communication tool, mobile Internet, social networks, and commercial platforms that have an important impact on the functioning of business, public institutions and individuals.

The paper presents the relationship between the concepts of digital economy, digitalization and informatization. The author notes that the term "digitalization" is broader than the digital economy, since the process of introducing digital technologies occurs in all spheres of human activity, and not just in the economy. At the same time, digitalization is a particular manifestation of the broader phenomenon of informatization of society, ie Digitalization is a modern stage in the development of informatization.

The work considers the communicative, infrastructural and sectoral aspects of the digital economy. Within the framework of the communicative approach, the issues of using information and computer technologies for economic and social interactions are considered. Ensuring effective communications between all subjects of the digital economy requires the availability of an appropriate infrastructure. In this regard, when defining the essence of the concept of "digital economy", a number of authors focus on its infrastructure, including technical means, centers for storing, processing and converting information, software, telecommunications, etc. The positive impact of digitalization on the development of the economy is primarily associated with the digital transformation of enterprises and industries. With the sectoral approach industry aspects of digitalization are also presented in [6]. The author considers the processes of digital transformation at the industry level and identifies five successive stages from primary informatization and communication digitalization to the industrial Internet.

The stages of digital transformation of enterprises are considered in [7]. The authors identify the following stages of digitalization of enterprises:

1. automation of technological processes;
2. informatization of individual business processes (accounting, agreement of contracts, design of products and technological processes, monitoring of relationships with partners and customers, etc.);
3. complex informatization of the enterprise based on the integration of local information systems;
4. integration into the digital economy ecosystem.

Digitalization covers many segments and has a huge impact on the country's economic growth. Permeates every aspect of the economy, society, including how people interact, the skills required for skilled work, new product development, manufacturing, logistics, sales, service, and even political decision making. Digitalization can help improve the quality of goods and services while reducing costs.

Electronic business operations, covering business processes implemented through computer networks as part of virtual interactions between the subjects of the virtual market [2].

Currently, examples of industries in which digitalization will significantly reduce the cost of services and improve the quality of services provided are the sectors of transport and logistics, education, healthcare, and others. The digitalization of the transport sector involves changing the technical and economic foundations of production. Currently, there are four key areas of digitalization of the transport sector:

1. Digitalization of transport infrastructure and supply chains (including warehouses and service centers).
2. Robotization of production processes;
3. Large-scale automation, including control processes;
4. Introduction of autopilot systems [9, p. 47].

One of the leading engines of economic growth is logistics in the digital economy, which combines the movement of financial, physical objects and human flows.

The transport and logistics sector was one of the first to feel the introduction of digital technologies. They automated management processes and then digitized the entire sphere.

The practical benefits of using new digital technologies can solve even more pressing and important problems. For example, with the help of drones and robotic suits for employees, it is possible to perform more complex tasks, reduce the damage to health from working in difficult conditions.

Digital technology is one of the priorities in the development of the healthcare industry. As a result, that part of the population that did not have convenient access to health facilities can receive appropriate services.

The state of health of the country's population is an indicator of the socio-economic development. This is an improvement in indicators, a decrease in morbidity, a decrease in mortality, an increase in life expectancy, the reproduction of labor resources, an increase in labor productivity, and all this affects the growth of the country's national income.

Another direction, distance learning, is designed to serve both students and teachers and practitioners. In medicine, more than in any other field, continuous education is required, the constant acquisition of new knowledge, and digital technologies provide convenient formats for such learning: online courses, remote lectures by leading scientists, broadcast of surgical operations, as well as access to electronic libraries and databases knowledge. This also includes educational projects aimed at improving public health literacy. [3]

There is a fairly large number of various electronic resources, sites that can make an invaluable contribution to the education of schoolchildren and students. Also, e-courses for

advanced training, retraining for educators, which allow you to choose educational materials and tasks using machine learning technologies, services for distance preparation for exams, etc.

Digital educational technologies satisfy the need for new knowledge, specific skills and abilities. This will contribute to the development of science, employment and economic growth.

Economic growth is defined as the process of increasing the real gross domestic product in any large and super-large economic systems, and also as "the quantitative and qualitative improvement of the social product over a certain period of time" [1].

When studying the issues of the digital economy, an important place is occupied by the evaluation of its effectiveness. There are different points of view on the economic efficiency of digitalization. Thus, according to the authors of, the introduction of information and communication technologies in industry ensures the growth of labor productivity, the reduction of non-production losses, which, of course, leads to an increase in GRP.

The opposite point of view is presented in according to the author, increasing the level of informatization of management processes does not have a significant impact on the quality of management of economic processes, which remain at a very low level. This situation is due to the fact that digital technologies are used to automate traditional management processes. At the same time, the effectiveness of digitalization can be achieved, first of all, by creating new models of economic behavior of market participants. [8]

As such a model, many authors consider digital platforms that facilitate interaction between a large number of economic agents. At the regional level, these can be industry platforms that ensure the interaction of participants in various markets: agro-industrial complex of the region, transport, housing and communal services, etc.

From the point of view of improving economic dynamics, the greatest opportunities are associated with the digitalization of industrial enterprises. At the same time, digitalization does not lead to a change in the basic goal of doing business - making a profit based on improving the efficiency of operating, investment and financial activities. Thus, from the point of view of the economy, the digitalization of production is not valuable in itself, but only to the extent that it allows you to increase the efficiency of financial and economic activities and get more profit.

Solving this problem requires the introduction of new business models. For industry, platforms, as well as "digital shadows" and "digital twins" of enterprises are considered as promising digital models. The work considers the "Internet of things" and digital laboratories, which allow the analysis, evaluation and design of existing processes in manufacturing enterprises. The presented tools for digitalization of enterprises can be divided into two groups. The first group can include the "Internet of things", "digital shadows", "digital twins" and digital laboratories. Their use allows you to increase the efficiency of internal business processes. The

second group is based on digital platforms, which allow to increase the efficiency of interaction with the external environment and ensure the integration of the enterprise into the ecosystem of the digital economy². In addition, the second group can include customized services and innovative ecosystems that ensure the development, diffusion and use of innovations .

Conclusion

Thus, from the foregoing, the conclusion follows that the digital economy significant momentum, improves the quality of life of citizens and ensures the economic growth of the country. The use of digital technologies makes life easier and provides convenience for all categories of citizens.

Based on the analysis of statistical data, we observe a slight increase in capital investment, GDP, an increase in wages, an increase in the urban population, etc.

This identified dynamics is undoubtedly positive, but it is still too early to talk about the economic growth of the country as such. Nevertheless, if the growth rates of the analyzed factors persist, and at best increase, and if the Government of the Russian Federation continues to pursue an effective policy to improve the economic situation in the country, improves the life of the population, economic growth will become more weighty.

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