

DIGITAL TRANSFORMATION AND ECONOMIC GROWTH

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The transition to innovative economic development in Belarus is a decisive factor in increasing competitiveness. Innovative development in recent decades has been associated with information technologies and the definition of the path of digital transformation. Trends in the development of the world economy and priorities for the development of the national economy are associated with changes in information and digital technologies, with the realization of human potential, with the expansion of the use of artificial intelligence. In this regard, the analysis and assessment of digital transformation and economic growth in Belarus seems to be a very urgent problem. The purpose of the work is to analyze and evaluate the digital transformation of the economy of the Republic of Belarus on the basis of statistical data.

Keywords: digitalization, economic growth, digital transformation, information and communication technologies, digital economy, informatization.

ЦИФРОВАЯ ТРАНСФОРМАЦИЯ И ЭКОНОМИЧЕСКИЙ РОСТ

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На современном этапе переход к инновационному развитию экономики в Республике Беларусь является решающим фактором повышения конкурентоспособности. Тенденции роста мировой экономики ориентированы внедрение цифровых технологий, расширенным применением искусственного интеллекта. В этой связи, анализ и оценка цифровой трансформации и экономического роста в Беларуси представляется весьма актуальной проблемой. Целью работы является анализ и оценка цифровой трансформации экономики Республики Беларусь на основе статистических данных.

Ключевые слова: цифровизация, экономический рост, цифровая трансформация, информационно-коммуникативные технологии, цифровая экономика, информатизация.

At the present stage of the global economic and social development of society, digitalization has a significant impact. New trends in global social development, taken together, are based on the digital representation of information, economic and social life, improving the efficiency of the economy and improving the quality of life.

Digital industrialization leads to economic growth. Thus governments of many countries have developed digital stages, to support and accelerate economic growth.

The Republic of Belarus is a state in the geographical center of Europe having a population of more than 9 million 300 thousand people, and located at the intersection of transport and information flows. Of course, using all the benefits, Belarus is actively developing its information infrastructure, same time, developing the digital transformation of the economy and the widespread dissemination of innovations.

Besides, the Republic of Belarus has achieved progress in the digital sphere. Such as, developed and world-standard data transmission network, reliable data storage and processing centers; online payment systems, modern electronic services and information security tools.

The Republic of Belarus has a leading place in the introduction of information technologies in the CIS. The Council of Ministers of the Republic of Belarus No. 66 of February 2, 2021 approved the State Program "Digital Development of Belarus" for 2021-2025, for the introduction of advanced information technologies in the national economy.

Countries are constantly optimizing their digital strategies. Increasing importance is being given to the digital economy and new approaches.

Digital industrialization has become the main trend of the digital economy, which suggests a wider use of semiconductors, cloud computing information and communication technologies (ICT). ICT have become a major factor in global economic growth.

The added value is also a key part of the digital economy. So, digital technologies in traditional industries, will lead to an increase of productivity and efficiency. The added value is also a key part of the economy, which the digitalization of traditional industries.

Effective investments in ICT infrastructure will contribute to the GDP growth. Artificial intelligence in combination with transactions and innovation, will lead to the further monetize digital data and increase a potential value.

The use of artificial intelligence technologies and cloud computing in various industries will increase the role of the digital economy. All this will directly affect the efficiency of production, labor productivity, competitiveness and, ultimately, economic growth.

5G, cloud and artificial intelligence are the three key elements for building digital infrastructure. 5G, is currently the most advanced technology and finds large - scale commercial applications. Cloud services are becoming more and more accessible.

Today, digital transformation affects all spheres of human activity. Republic of Belarus is the first among the CIS, to complete the full transition to digital broadcasting and testing of the 5G network. 5G resources open up prospects for the development of such innovative areas as the concept of "smart cities".

The second of the three technologies is artificial intelligence (AI). AI is not only provides decision support systems, but also itself part of the main business processes in production. Many countries promoting the industrialization of AI to become one of the centers of intellectual modernization of industries.

The third technology provides moving to the Cloud as an important sign of digital transformation. Secure and reliable cloud is the foundation of digital sovereignty and digital intensification of any country.

Countries are paying more to the protection of data sovereignty, as well as competing and reconstructing rules based on the cloud. AI Governments pass laws and develop rules to protect digital sovereignty.

Thus, the digital economy is a system of economic relations between the state, citizens and business. Embracing industry are necessary for science, healthcare, finance, education, trade and other. The digital economy is changing attitudes to space and time, improving the quality of information processing, ensuring and the protection of any data.

Thus the digital economy is rapidly developing all over the world. The purpose of the formation of a modern digital economy in the Republic of Belarus is to create conditions to the development of the information society.

The main reason for collecting data on the development of the digital economy is the desire for a better understanding of the actual processes. This requires knowledge of both the digitalization processes, that directly affect the performance of enterprises, and the factors that affect the ability of an enterprise to implement digital technologies.

The potential of digital technologies in the Republic of Belarus allows us to present the processes in the digitalization of the economy in a complex. Innovative activity in the field of digitalization, will be assessed as a result of statistical analysis and dynamics of the main indicators of communication sector of the economy. The system of indicators of digital economy statistics includes the following sections: information and communication infrastructure; use of information and communication technologies by the population and organizations; informatization infrastructure; digital transformation; national ICT industry.

Digital transformation is the process of forming a new type of economy, the transition to a new technological order. The intensity of digitalization occurring in the economy is reflected in the following indicators: the state of information and communication infrastructure; human development; the share of gross value added in GDP (table). It should be noted that almost all organizations in Republic of Belarus have an access to the Internet, which covered 97,1% of the surveyed. The proportion of households with Internet access, in the total number of households in 2020, was 82%. If we compare this value with the indicators of 2009, than the share of households with Internet access, during this period, was only 20%, in 2012; thus this indicator had increased to 47% [1].

Dynamics of digital economy development in the Republic of Belarus

Indicators	2012	2016	2017	2018	2019	2020	2021
The number of subscribers and users of fixed broadband Internet access, broken down by data transfer rate per 100 people of the population - 100 Mbit/s or more, units	-	-	0,5	1,0	4,5	8,6	12,1
Number of ICT sector organizations, units	3958	3962	4492	4996	5202	5341	5412
The number of employees of organizations in the ICT sector, thousand people	92,6	85,4	92,2	100,7	111,3	118,8	124,6
The share of gross value added of the ICT sector in GDP, %	3,3	4,5	5,2	5,6	6,5	7,3	7,6
The share of ICT sector production in total output, %	3,0	4,3	4,6	4,7	5,5	6,3	6,1
The share of ICT services in the total volume of services exports, %	9,4	16,8	18,4	21,0	25,0	30,7	31,3
The share of ICT services in the total volume of imports of services, %	5,1	5,4	5,0	5,5	7,2	8,9	8,7
The share of ICT goods in the total volume of exports of goods, %	0,8	1,1	1,0	1,0	1,1	1,4	1,4
The share of ICT goods in the total volume of imports of goods, %	2,4	3,3	3,3	3,7	3,8	4,0	3,7
The number of electronic services and administrative procedures provided through the OAIS, per 100 people of the population, units	-	14	27	57	60	77	194
The share of educational institutions covered by the E-School project in the total number of educational institutions, percent	-	2,5	16,4	16,4	59,0	80,0	-

Source: authors' calculations based on the data [1].

The processes of digital transformation of the economy is the proportion of gross value added (GVA) of the ICT sector to GDP. In 2012, this value was 3.3% Ten years of a steady gradual increase, and in 2021 it reached 7,6%.

Exports of information services exceed imports, the ratio of the share of ICT services in 2021 total exports exceeds the share of services in imports by almost 3,1 %. Exports of goods are in a less attractive. In 2016, 25% of doctors in public health organizations had the opportunity to issue prescriptions for medicines in electronic form, in 2018 this figure increased to 75% in 2021 it amounted to 97,2%. The proportion of the population using the Internet to interact with public authorities was 6,1% in 2015, and 26,7% in 2021 [1].

The number of electronic services and administrative procedures provided through the O AIS, per 100 people of the population, has increased 13 times. The share of educational institutions covered by the E-School project in the total number of educational institutions has increased by more than 30 times.

According to the International Telecommunication Union, the Information and Communication Technologies (ICT) index of the country ranks was 32, from 176 countries and has a value of 7,55 [2].

The changes taking place in the information environment today are only the first steps towards the digital economy, changing society and relations in society.

Digital transformation creates both huge opportunities. New technologies make a huge contribution to sustainable socio-economic development. Digital transformation is making changes in the structure of the economy, market models, transforming people's lives. The digital economy cannot exist without a person. It is based on human capital, new technologies, intellectual property objects [3]. The creative potential of people is the driving force of innovation. And the availability of more complete information about the digital transformation of the Belarusian economy contributes to understanding the processes of digitalization in the country. This makes it possible to assess the impact on economic growth, the opportunity to increase the degree of participation of the country in the international rankings of digital economies.

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