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ISSUES OF THE IMPACT OF THE DIGITAL ECONOMY ON THE ECONOMIC DEVELOPMENT OF THE COUNTRY

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ПИТАННЯ ВПЛИВУ ЦИФРОВОЇ ЕКОНОМІКИ НА ЕКОНОМІЧНИЙ РОЗВИТОК КРАЇНИ

The article discusses the impact of the digital economy on the economic development of the country. In this regard, the article examines the positive impact of the digitization process on the development of the national economy in all countries of the world. It is shown that the current state of the labor market largely depends on digitization. Based on the analysis carried out in the article, it was found that the globalizing world is digitizing faster. States are already taking serious measures to integrate the digitization process into social and economic life more quickly.

The formation of the digital economy is currently considered as the main priority for both developed and developing countries.

The analysis shows that it is necessary to pay more attention to the socio-economic indicators of the regions, which play an important role in ensuring the digital development of the country. The current economic problem is considered more relevant for post-soviet countries. In the article established that the effective implementation of digital development depends, first of all, on the correct formulation of the main priorities of state regulation in the field of digital economy.

It is concluded that ensuring the balanced development of the digital economy has a significant impact on the growth of the competitive potential of the national economy. It should be noted that the development of the national economy is closely linked with the socio-economic development of the regions. The experience of post-soviet countries shows that ensuring the development of the digital economy requires improving the national strategy of economic development. In general to achieve sustainable economic development and to develop a concept of a strategic development strategy in the field of digitalization are necessary. In addition, it is important to ensure the digital development of the national economy. The development of the modern digital economy leads to the strengthening of the competitiveness of the service sector and the production of the national economy of the country.

The article identifies the existing problems for ensuring modern digital development policy, provides suggestions and recommendations for overcoming them.

У статті аналізується вплив цифрової економіки на економічний розвиток країни. Узв'язку з цим у статті розглядається позитивний вплив процесу цифровізації на розвиток національної економіки в усіх країнах світу. Показано, що поточний стан ринку праці значною мірою залежить від цифровізації. На основі аналізу, проведеного в статті, було виявлено, що світ, що глобалізується, оцифровується швидше. Держави вже вживають серйозних заходів для швидшої інтеграції процесу оцифрування в соціальне та економічне життя.

Формування цифрової економіки наразі розглядається як головний пріоритет як для розвинутих країн, так і для країн, що розвиваються. Аналіз показує, що необхідно приділяти більше уваги соціально-економічним показникам регіонів, які відіграють важливу роль у забезпеченні цифрового розвитку країни. Сучасна економічна проблема вважається більш актуальною для пострадянських країн. У статті встановлено, що ефективне впровадження цифрового розвитку залежить, насамперед, від правильного формулювання основних пріоритетів державного регулювання у сфері цифрової економіки.

Зроблено висновок, що забезпечення збалансованого розвитку цифрової економіки має значний вплив на зростання конкурентоспроможного потенціалу національної економіки. Слід зазначити, що розвиток національної економіки тісно пов'язаний із соціально-економічним розвитком регіонів. Досвід пострадянських країн показує, що забезпечення розвитку цифрової економіки потребує вдосконалення національної стратегії економічного розвитку. Загалом для досягнення сталого економічного розвитку та розробки концепції стратегічної стратегії розвитку у сфері цифровізації необхідно. Крім того, важливо забезпечити цифровий розвиток національної економіки. Розвиток сучасної цифрової економіки призводить до посилення конкурентоспроможності сфери послуг та виробництва національної економіки країни. У статті визначено наявні проблеми забезпечення сучасної політики цифрового розвитку, надано пропозиції та рекомендації щодо їх подолання.

Key words: innovation, digital economy, integration, investment, transformation, national economy.

Ключові слова: інновації, цифрова економіка, інтеграція, інвестиції, трансформація, національна економіка.

INTRODUCTION

The formation of the digital economy is currently considered as the main priority for both developed and developing countries. In modern economic conditions, the development of information and communication technologies is also considered the main basis for digitalization and the formation of the digital economy. Serious measures have been implemented by both the public and private sectors in recent years to develop the ICT sector in the post-soviet countries.

In recent years, the process of digitization of the national economy has been successfully continuing in all countries. The current state of the domestic labor market in each country directly depends on the digitization process. Rapid economic development exacerbates the consequences of the technological revolution.

Before digitization has any impact, it is necessary to pay attention to the concept of digitization. Digitization occurred with the invention of the first computer, which led to the 3rd Industrial Revolution. From the very first stage of its creation, innovations have taken place in this area. The advent of the internet in the 80s of the XX century made it possible to overcome the barrier between countries and provide global access. Previously, the use of the internet was exclusively of a domestic nature. Over time, the emergence of e-commerce has led to the formation of large multinational companies in this area.

The analysis shows that it is necessary to pay more attention to the socio-economic indicators of the regions, which play an important role in ensuring the digital development of the country. The current economic problem is considered more relevant for post-soviet countries. In the article established that the effective implementation of digital development depends, first of all, on the correct formulation of the main priorities of state regulation in the field of digital economy.

ANALYSIS OF RECENT PUBLICATIONS ON THIS TOPIC

In the 90s of the XX century, digitization existed only in certain divisions of corporate companies. Artificial intelligence technology, programmable intelligent devices (IoT technology), 3D technologies and other innovative waves have expanded the sphere of influence of digitization. The countries of the developed world moved to the 4th Industrial Revolution at the beginning of the XXI century. Technological innovations have caused major changes in the labor market. In order to achieve efficiency in the field of production and service, modern enterprises are equipped with new innovative technological equipment.

A.Sh. Shakaraliyev notes in his work that the formation of the digital economy in the country stimulates the development of all economic sectors [1]. Structural

changes in the national economy require the redistribution of agricultural, manufacturing and service sectors, which are economic sectors of labor. Historical stages show that before industrialization, most of the population was employed in agriculture in modern developed countries. At later stages, the share of employment in the production sector increased due to the outflow of a significant part of the population to the cities. Over the past decade, the situation has begun to change dramatically with the introduction of innovative technologies of a new generation. And if you look at the service sectors, you can see the opposite situation. Previously, the level of employment and income in this area was very low. The presence of technological innovations in developed countries has also ensured the development of the service sector. K.N. Abdullayev shows in his research that the digitization of national economic sectors leads to the expansion of the business environment in the country [2].

However, there are notable differences in developing countries. For example, the structural changes taking place in the labor market of a number of Asian countries are similar to those in developed countries. Although in modern developed Asian countries the level of employment in agriculture in 1960 was 48%, by 2020 this figure has fallen to 21%. In the manufacturing sector, however, the employment rate increased between 1960 and 1990, but has declined in the last decade. As for the services sector, the employment rate has steadily increased, reaching 56% by 2020.

Unlike previous industrial revolutions, the new technological revolution has made mass production possible, creating digital opportunities for billions of people. The 4th Industrial Revolution is the result of the interaction of the physical and digital world. This directly affects all industries, forming a new structure.

In his scientific work, D.V. Kuzmin noted that it is necessary to expand digitalization in economic fields in order to increase the competitiveness of the national economy [6]. The changes that are taking place under the influence of digitalization in all countries of the world are useful for society. These changes are also dangerous. Providing access to digital networks for billions of people around the world leads to a sharp increase in the efficiency of production and service enterprises. V.P. Kolesov noted in his research that the application of modern innovative technologies is necessary for the development of the national economy [4]. The modern new generation of technologies functions monotonously, without the need for human labor. That is, these technologies completely disable them, replacing both existing technical equipment and human labor. In this area, it is necessary to highlight the technology of the Internet of Things. New generation technologies are programmed in the correct form in such a way that they accurately perform operations using artificial intelligence.

The digitization process greatly simplifies the operations to be performed, completely changing the specialization of enterprises. The reduction of staff at enterprises can reduce wages and taxes payable for labor. As a result, the costs of enterprises are reduced. At this time, these enterprises invest more in production and improve the quality of products.

Approaching the issue from the other side, the lack of demand for labor during structural changes can increase the unemployment rate. Thus, there is long-term structural unemployment, which reduces the level of well-being of society. At the same time, the labor force that cannot operate technological equipment equipped with programming is also shrinking, which increases the level of technological unemployment. As a clear proof of this, we can cite a reduction in the number of workers to 5,000 by 2020 as a result of technological innovations, while in 1920 there were 1.2 million miners in the UK.

The transition of the countries of the world to the 4th Industrial Revolution has weakened the dependence between productivity and employment in enterprises and organizations. During this period, as a result of the influence of technological factors, the level of employment began to grow no less than productivity.

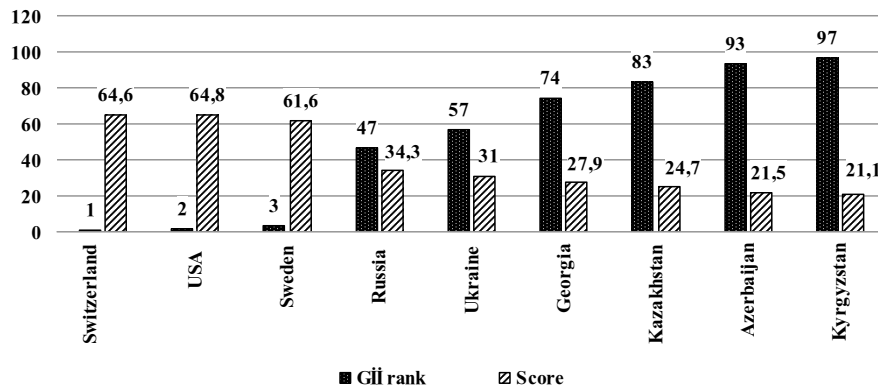
The productivity gained from automation has led to a decrease in the level of employment. The current state of electronic services in the digital age is obvious. The expansion of opportunities in this area has opened the way to the emergence of new types of online forms of employment. Thus, the use of the internet has created conditions for engaging in e-commerce for a certain segment of society. In recent years, it can be seen that there are significant differences between countries in the use of the Internet. In European countries, about 80% of internet users have access to e-commerce. In underdeveloped countries, this figure is 10%. The development of e-commerce follows from the requirements of the modern era. Consumers are turning to this platform to take advantage of products and services with a wide variety in the short term. It should be borne in mind that an increase in consumption creates an incentive for organizations to produce products. Thus, investments are allocated for commercial activities on the Internet.

Of course, depending on the level of development, there are big differences in the number of internet users in countries. In addition, the indicators of e-services also vary depending on the development prospects of countries.

Structural changes occurring in the production and service sectors in the process of digital transformation include the following factors: reformulation of the business model; business processes; human factor; data and data; technological infrastructure.

It is imperative that organizations adapt to this phase in order to cope with the challenges that arise in the digital age and take advantage of these opportunities. New innovative technologies ensure sustainable development in the long term, enriching the opportunities of the business environment. The new business model of the organization has a large share against this background. New business models describe which customer needs will be met by distributed products and services, controlling costs and revenues. To implement business models, enterprises implement business processes. This process defines the tasks that business sectors need to complete in order to achieve specific goals. Here, along with traditional business process management concepts, enterprises also support non-standard operations.

One of the issues that should be taken into account in the business process is the human factor. Although



Graph. 1. Positions of some countries in the Global Innovation index (GII) (2022)

Source: Global Innovation Index — <https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2022-section1-en-gii-2022-at-a-glance-global-innovation-index-2022-15th-edition.pdf>

equipping manufacturing plants with programmable equipment reduces the physical labor that falls on the workforce, the use of technology requires personnel with digital knowledge in this area. Thus, the human factor also becomes an integral part of the structure of the enterprise.

To take advantage of the opportunities emerging in the era of digitalization, a digital infrastructure is needed. Digital infrastructure includes personal computers, which are considered traditional devices, as well as cyber-physical systems, as well as resources such as smart meters, autonomous robots and cloud technologies. Nowadays, traditional manufacturing infrastructure is being replaced by digital infrastructure to bridge the gap between the physical and digital environment. Along with structural changes, digitalization also has humanitarian consequences. Thus, the replacement of dangerous and demanding jobs with new types of technologies eliminates many disadvantages, creating new opportunities for people with physical disabilities. There are factors that are influenced by structural changes in the era of digitalization. These include: price, income, internal relations of the enterprise and trade [3].

STATEMENT OF THE MAIN MATERIAL

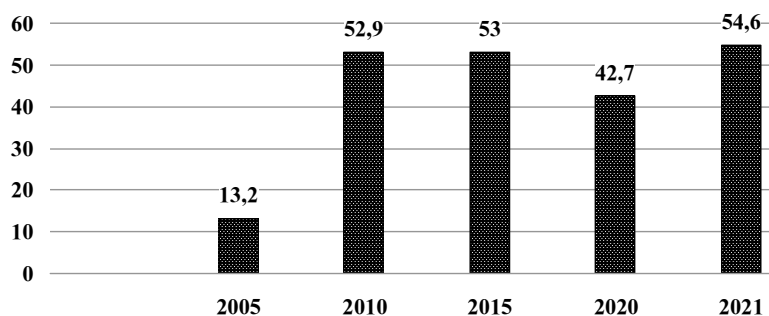
The development of technological progress has increased the degree of quality of products and services by creating structural changes. As a result, there is an inverse relationship between the effect of innovation and productivity and price. That is, the higher the performance, the lower the price. The second driving force of structural changes is related to income changes. Price changes also cause a change in consumer

incomes. With an increase in income, it becomes possible to meet greater demand for goods and services. In accordance with this, there is a redistribution of labor. Technological innovations not only create structural changes in employment, but also create conditions for an effective division of labor in the economy. Even innovations in many cases either displace other professional fields, or completely displace and absorbing them.

In recent years, serious changes have taken place in the position of some countries on the Global Innovation Index (2022). For example, countries such as Switzerland, the USA, and Sweden were among the top three leaders in the Global Innovation Index (GII). According to the countries of the post-soviet space, Russia was on the 47th place, Ukraine — on the 57th, Georgia — on the 74th, Azerbaijan— on the 93rd. For example, Switzerland, ranked 1st in the global innovation index, received a score of 64.6. In addition, the score of the USA was 61.8, Ukraine-31, Azerbaijan-21.5 (Graph. 1).

Significant changes have also been observed in the dynamics of changes in the GDP of the Republic of Azerbaijan in recent years. For example, in 2005, Azerbaijan's GDP amounted to \$13.2 billion US dollar. As a result of the successful economic policy carried out in recent years in Azerbaijan, the development of the national economy has been ensured. It is as a result of this that the volume of GDP in 2020 increased compared to previous years to 42.7 billion US dollars, and in 2021 was — 54.6 billion US dollars (Graph. 2).

Innovative changes in business models create the need to change the entire architecture of the enterprise. The



Graph. 2. Dynamics of changes of GDP of the Republic of Azerbaijan in recent years (billions of dollars US Dollars)

Source: The State Statistical Committee of the Republic of Azerbaijan https://www.stat.gov.az/menu/6/statistical_yearbooks/

changes caused by technology are covered by the scope of digital transformation. This includes the procedural and technological transformations that organizations need to succeed in the digital age. Digital transformation organizes how business models can be implemented by organizations, and the impact of digitalization on how organizations are managed. Existing business processes and organizational structures, data, technological infrastructure, and customer base must be adapted to the requirements of new models.

The business structure of the organization has changed significantly under the influence of digital factors. Some areas of employment have been integrated into others or have completely failed. In parallel, demographic development affects the growth of the unemployment rate. Technological changes play a big role in improving productivity. In addition, cost reduction leads to a decrease in the selling price of the product. As a result, enterprises with global access become competitive because they offer export products at an affordable price [5].

In recent years, a number of state projects have also been implemented in the Republic of Azerbaijan in order to adapt to the world of digital innovations. The Republic of Azerbaijan occupies an important strategic position and, in order to diversify foreign relations. At the same time, in order to simplify the existing relations with citizens in government agencies and private companies, the quality of digital services has been improved in recent years in Azerbaijan by "ASAN" Service, "DOST" agency, etc. organizations have been created.

CONCLUSION

As we know, in the digital age, many enterprises are forced to change their business structure. In fact, digitization does not make existing models more efficient, it completely disables them and replaces them with new ones. Modern technologies are blurring the boundaries between the physical and digital world. The emergence of information services, intelligent technologies, product platforms and services opens up new opportunities for business areas in the digital age.

In short, since digitalization affects all spheres of the economy, it is necessary to constantly monitor technologies in order to take advantage of the opportunities created and prevent digital violations. In this context, systematic analysis of opportunities and dangers, as well as obtaining recommendations on their functioning, is a great importance. This also includes developing digital skills to use existing technologies correctly. The basic concept of the digital world means the management of society through technology. Despite the fact that it had devastating consequences, its aspects, accelerating economic development, greatly simplified the functioning of society. It is necessary to implement serious economic measures towards the development of the digital economy.

Література:

1. Шакаралиев А.Ш. Экономическая политика государства: торжество устойчивого и стабильного развития. Баку: Изд. Victory. 2011. 542 с.
2. Abdullayev K.N. and etc. Regulation of the Digital Economy in Modern Condition of Competitiveness. "WSEAS Transactions on Business and Economics". New Jersey: WSEAS publ. house. 2022. №19. С. 1289—1295.

3. Abdullayev K.N. and etc. The role of Creative Potential in the Project Management Process for the Implementation of the Company's Strategies. Review of Economics and Finance, London: Finance publ. house. 2022. №20, p. 255—262.

4. Колесов В.П., Кулаков М.В. Международная экономика. Москва: Инфра — М. 2009. 345 с

5. Ширай В.И. Мировая экономика и международные экономические отношения. Москва: Издательских дом Дашков и К. 2003. 528 с.

6. Кузьмин Д.В. Национальная конкурентоспособность, глобальная нестабильность и макроэкономическое равновесие. Москва: Наука. 2015. 222 с.

References:

1. Shakaraliyev, A.Sh. (2011), Ekonomiceskaya politika gosudarstva: torjestva ustoycivoqo i stabilnoqo razvitiya [Economic policy of state: triumph of sustainable and stable development], Victory, Baku, Azerbaijan.

2. Abdullayev, K.N. and etc. (2022), "Regulation of the Digital Economy in Modern Condition of Competitiveness", WSEAS Transactions on Business and Economics, vol. 19, pp.1289—1295.

3. Abdullayev, K.N. and etc. (2022), "The role of Creative Potential in the Project Management Process for the Implementation of the Company's Strategies", Review of Economics and Finance, vol. 20. pp. 255—262.

4. Kolesov, V.P. and Kulakov, M.B. (2009), Mejdunarodnaya ekonomika [International economics], Infra, Moskva, Russia.

5. Shiray, V.I. (2003), Mirovaya ekonomika i mejdubarodnie ekonomiceskie otnosheniya [World economy and international economic relations], Moskva, Dashkov and K, Moskva, Russia.

6. Kuzmin D.V. (2015), Nasionalnaya konkurentosposobnost, globalnaya nestabilnost i makroekonomiceskie ravnovesii [National competitiveness, global instability and macroeconomic balance], Nauka, Moskva, Russia.

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