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## **ENTERPRISES AND HUMAN CAPITAL OF DIGITALIZATION OF THE ECONOMY INFLUENCE ON INNOVATIVE DEVELOPMENT**

### **Summary**

One of the most pressing tasks facing states in a globalized world is the digitalization of the economy and ensuring high-speed integration of the spheres of production of innovative technologies. Currently, the world is entering a new stage of development and widespread use of digital technologies. The formation of such an innovative production environment first of all creates new prospects for the development of human society.

**Keywords:** Digital technologies, nanotechnologies, digital products, robotization, information resources

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### **Intradaction**

The development of the global economy is currently linked to the development of digital and nanotechnologies. Higher education is also undergoing changes, the current trend in the development of education has become the creation of a large number of massive open online courses.

It is no coincidence that the level of economic development of countries is measured by the level of use of digital technologies, characterized by the automation of production areas, the replacement of human labor by robots, and the wide use of artificial intelligence, in addition to macroeconomic indicators determined based on traditional methods.

According to the main economic development trends of the world, the necessity of developing Azerbaijan based on knowledge, ICT, and innovation has been established in a number of state documents. High science and technology and innovation parks are the main driving force for the transition to innovative development.

### **Analiz**

The global "digitalization" of all areas of the population's life, including the economy, imposes the task of applying modern digital technologies to the educational process for higher education. Responding to modern challenges, the higher education system undergoes radical

changes in accordance with global development trends. In modern conditions, there are rapid and irreversible changes in teaching methods in higher education

Management of the production process based on new knowledge and technologies has its own characteristics according to the type of system and product, organizational structure, material resources, information resources and system. The production system has functions such as technical and administrative management, materials processing, service, support, security, innovative environment, automation, program management, robotization, various scalability, configurability, modernity, adaptability [3]. More attention is paid to the application of automation tools in production systems.

In addition to digital enterprises, digital products, engineering and management in a digital environment, product life cycle management in a global network environment, intellectualization in the production-supply chain, ICT security, etc. trying to solve such problems.

The main results expected from the automation and intellectualization of production processes include the following:

- 1) direct economic impact on innovation and research in production;
- 2) help in the implementation of scientific research;

3) create a competitive product in the market;  
4) establishment of cooperation between scientific and industrial fields;

5) focus on European production, establishment of close relations with regional clusters;

6) gaining ecological and economic advantages due to the use of new technologies, etc.

Digitization is a process of our modern era that is developing at a dynamic speed and has an impact on national economies and societies in one way or another. Today, it can be said with certainty that information and communication technologies have entered a new stage of development and have the power to transform all areas of our lives.

The experience of advanced countries also shows that the digitization process has a positive effect on the economy by opening new jobs, improving the quality of life, increasing productivity, ensuring transparency, as well as contributing to the development of small and medium enterprises.

But what is the digital economy? The digital economy is the economic activity based on computer technologies, which is the result of billions of daily internet connections between people, businesses, devices, data and processes. The area in question is a factor affecting economic processes as a whole.

The most important thing that distinguishes the digital economy from the traditional economy is that it is an economy based on digital technologies, which include Machine Learning and Artificial Intelligence, Internet of Things, Big Data, AR (Augmented Reality) and VR (Virtual Reality), etc. includes concepts such as

In recent times, the scope of the digital economy has been expanding at an unprecedented rate, and it is penetrating almost all areas of economic activity at different rates. In this regard, a number of important tasks arise in front of us in order to strengthen the positive effects of digitalization on our economy and society and to develop this process in a sustainable manner.

Building a digital economy, applying modern technologies and innovations are among the priority issues for Azerbaijan. Favorable geographical position and human potential of the country, as well as state programs, decrees and orders

adopted in recent years create fertile conditions for this.

In the socio-economic development strategy of the country in 2022-2026, the measure "Development and implementation of the strategy for the development of the digital economy" was reflected. The preparation and implementation of the mentioned strategic document was entrusted to the Ministry of Economy, and within the Ministry to 4SIM.

The preparation of the Digital Economy Strategy document will serve to form a sustainable and competitive digital economy in the country, to make Azerbaijan one of the leading countries in the relevant field, to measure and develop the digital economy in a coordinated manner.

In addition to all these processes, in order to strengthen the positive effects of digitalization on our economy and society and develop this process in a sustainable manner, regular measures are being taken to evaluate the effects of the digital economy on the country's economy and to apply advanced methodologies in this field.

Fundamental reforms carried out in Azerbaijan lead to the stability of the growth rate in digital transformation and electronic commerce. If we look at the position of our republic in international rankings, in the UN Global Study on the Simplification of Trade Procedures, compared to 2019, the transparency indicator will be 6.67 percent in 2021, and 16 percent in the cross-border paperless trade indicator. A 67 percent increase was achieved. In general, in the 2022 report of the "GovTech Maturity Index - GTMI" prepared by the World Bank, Azerbaijan was included in the first group of 35% countries due to the high level of digitalization.

In addition, the single digital platform model applied in the field of e-commerce in Azerbaijan can be used to further improve the investment environment.

Thus, the presentation of the country as an attractive environment for investment and the possibility of access to existing electronic services, including the opportunities provided in the field of electronic commerce, from a "one window" will create great opportunities in the field of investment. Regarding the trends of the Vision

Concept-2030, it can be noted that the European manufacturing sector must undergo innovative changes by 2030. For this, in the scientific-research and innovative areas that are considered a priority [2]:

- 1) advanced production processes,
- 2) adaptive and smart production systems,
- 3) electronic, virtual and resource-saving enterprises,
- 4) joint and mobile enterprises,
- 5) human-brain-centered production,
- 6) customer-oriented production should be formed.

The main capabilities of ICT for improving production systems at different levels are as follows: 1) Intelligent enterprises should be modified according to the requirements of flexible production and customers. The goal of this process is to achieve greater automation, better control and optimization of processes in the enterprise.

The application of cloud technologies and other state-of-the-art ICT tools is inevitable in the enterprises of the future. In enterprises, existing rich experience should be used, real production resources should be integrated [1].

More attention is paid to the application of automation tools in production systems. In addition to digital enterprises, digital products, engineering and management in a digital environment, product life cycle management in a global network environment, intellectualization in the production-supply chain, ICT security, etc. trying to solve such problems. The main results expected from the automation and intellectualization of production processes include the following:

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- 2) help in the implementation of scientific research;
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- 6) establishment of cooperation between scientific and industrial fields;
- 7) focus on European production, establishment of close relations with regional clusters;
- 8) gaining environmental and economic advantages due to the use of new technologies, etc.

Based on the above, it can be concluded that there is currently a transition to the digital economy, which is manifested in the acceleration of scientific and technical progress, the demand for continuous innovation, and other fundamental changes. Human capital, the main resource of the digital economy, undoubtedly requires the use of new approaches in managing its development, taking into account the digital trends in socio-economic relations [5].

Digital technologies provide tools to attract and retain the right people more effectively, as well as to better manage internal structure and production. Digital HR activities also aim to increase employee freedom by enabling existing and potential employees to manage their professional activities through online services, providing higher levels of satisfaction and productivity.

#### Reference

1. Weinberger, N. A new monitoring process of future topics for innovation and technological analysis: informing Germany's innovation policy / N. Weinberger, M. Decker, T. Fleischer, J. Schippl // *European Journal of Futures Research*, – Berlin : – 2013.vol.1, – p.18-24.
2. Westkämper, E. Digital and smart factories. *Manufuture 2013. View on Horizon 2020: sustainable re-industrialisation of Europe* // *European Conference for Engineering Industry and Research*. -Vilnius, -2013, October 6-8, -p. 115-118.
3. Zhang, L. *Future Manufacturing Industry with Cloud Manufacturing* / L.Zhang, M.Jingeng, R.C.Huntsinger // *Cloud-Based Design and Manufacturing (CBDMD)*, –Springer International Publishing Switzerland: 2014, –p. 127-152.
4. Abrashkin M.S. Influence of the digital economy on the development of the industry of the Russian Federation/M.S. Abrashkin, A.A. Vershinin // *Questions of regional economics*. – 2018. – No. 1. - S. 3-9.
5. Vorozheykin I.E. *Management of social development organization*. - M., 2011. - 102 p.
6. Akhmetova S.G. Experience of introducing new technologies in higher professional education. S.G. Akhmetova, L.V. Nevskaya //

Vestnik of the Perm National Research Polytechnic University. Social and economic sciences. – 2018. – No. 2. - S. 62-69.

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## **ПРЕДПРИЯТИЯ И ЧЕЛОВЕЧЕСКИЙ КАПИТАЛ ЦИФРОВИЗАЦИИ ЭКОНОМИКИ ВЛИЯНИЕ НА ИННОВАЦИОННОЕ РАЗВИТИЕ**

### **Резюме**

Одной из наиболее актуальных задач, стоящих перед государствами в глобализированном мире, является цифровизация экономики и обеспечение высокоскоростной интеграции сфер производства инновационных технологий. В настоящее время мир выходит на новый этап развития и широкого применения цифровых технологий. Формирование такой инновационной производственной среды прежде всего создает новые перспективы развития человеческого общества.

**Ключевые слова:** Цифровые технологии, нанотехнологии, цифровые продукты, роботизация, информационные ресурсы.

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## **İQTISADIYYATIN RƏQƏMSALLAŞMASININ MÜƏSSİSƏLƏRİN VƏ İNSAN KAPİ- TALININ İNNOVATİV İNKİŞAFINA TƏSİRİ**

### **Xülasə**

Qloballaşan dünyada dövlətlərin qarşısında duran ən aktual məsələlərdən biri iqtisadiyyatın rəqəmsallaşması və innovativ texnologiyaların istehsal sahələrinin yüksək sürətlə inteqrasiyasının təmin olunması məsələsidir. Hazırda rəqəmsal texnologiyaların inkişafı və geniş tətbiqi ilə dünya yeni mərhələyə qədəm qoyur. Belə bir innovativ istehsal mühitinin formalaşması ilk növbədə insan cəmiyyətinin inkişafı üçün yeni perspektivlər yaradır.

**Açar sözlər:** Rəqəmsal texnologiyalar, nanotexnologiya, rəqəmsal məhsullar, robotlaşma, informasiya resursları.

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