

GLOBAL DIGITAL TRENDS AND THEIR IMPACT ON NATIONAL ECONOMIC PROGRESS

Monograph

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11. TRENDS AND PROSPECTS OF DIGITAL TRANSFORMATION OF THE UKRAINIAN ECONOMY IN THE CONDITIONS OF EUROPEAN INTEGRATION

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Introduction. The processes of globalization, scientific and technical development of many countries and informatization of society require significant changes within the sphere of economic activity. Traditional economic activity is being restructured in the direction of using information, communication and digital technologies, which causes its transition from one that consumes resources to an economy that creates them. The development of digital technologies has activated a deepened interest in the establishment of the digital economy's foundations and the study of its impact on the economic growth of many countries. Digital transformations contribute to the development of small and medium-sized businesses, smart transport management, increased safety and improvement of ecology, improvement of housing and communal services, electronic interaction with local authorities, improvement of the population's level of digital skills.

In Ukraine, at the state level, considerable attention is paid to the use of digital transformations for the development of the economy and society. Digitization is defined as a mechanism of economic growth due to the ability of technologies to positively influence the efficiency, effectiveness, cost and quality of economic, public and personal activities. This is reflected in the Digitalization Strategy of Ukraine until 2030 [1]. Choosing to cooperate with the countries of the European Union is an important stage in the development of Ukraine's economy. This has led to the development and approval of the strategic document known as the Digital Compass 2030 [2]. The main four directions are highlighted, which include the development of highly qualified specialists in the field of digital technologies, safe and effective sustainable digital infrastructure, digital transformation of business, digitization of public services, which in turn include specific goals for the formation of a prosperous digital future of the country.

Literary review. Research on the development of digital transformations in the economy is reflected in many scientific works of foreign and domestic economists, including I. Irtysheva, L. Ligonenko, H. Lopushnyak, O. Mykhaylenko, S. Mishchenko, K. Pugachevska, M. Rudenko, I. .Strutynska, B. Teteryatnik, A. Khripko

and others. [3,4,5,6,7]. In particular, the results of the study of prerequisites, challenges and drivers of digital transformation of domestic business structures are noted in the scientific works of I. Strutynska [6]. The author formulated the methodological provisions of the digital transformation of business structures, which provide for the systematic structuring of business processes, business models, factors, indicators of the processes of digital transformation of enterprises. Analytical assessment of Ukraine's position in the global indices of the digital economy is reflected in the works of M. Rudenko [7]. But at the same time a significant number of problems digital transformation of Ukraine's economy in war conditions remain insufficiently disclosed.

Results. The experience of successful countries shows that today new digital technologies and innovative business models penetrate all economic and social spheres of society, which affect the essence of the economy and form qualitative structural changes in it. As a result, the formation of the digital economy is taking place, as a subsystem of the economy, which is distinguished by the active use of digital technologies and the turnover of specific electronic goods in the process of its functioning. The level of development of the digital economy significantly affects the level of the country's competitiveness, which requires special attention of the state and the business environment to the prospects of its development in the context of the impact of digital transformations. Therefore, the term "digital transformation" should be understood as the process of introducing digital technologies in the conditions of the development of the era of the digital economy for the improvement of business, human life, society and the state as a whole.

It should be noted that the using of digital transformation is invaluable, as it enables the fullest realization of the potential of digital technologies across all business components (processes, products, services, and decision-making approaches). At the same time, the presence of technology as such will never be enough for digital transformation. Therefore, for the process of digital transformation to be full-fledged, a clearly established system of defined business tasks and data for their digitization is necessary. So, the digital transformation of business reflects the relationship of different levels, namely: digital data, digital infrastructure, digital models, digital economy (Fig. 1).

Information technologies are the basis of the digital transformation of companies, especially in the banking and telecommunications sectors, which increase economic efficiency and reveal new opportunities to increase their competitiveness in foreign and domestic markets. In traditional industries, the methods of analyzing large volumes of data are actively used to obtain new knowledge and make effective management decisions, which led to the formation of the digital economy. In Ukraine, the task of forming a model of the development of the digital economy is being updated, as one of the effective factors of the penetration of innovations and technologies into competitive sectors of its economy [8]. The implementation of strategic areas of support and development of the digital economy will contribute to the achievement of Ukraine's European integration goals, increase in competitiveness and recovery of the country in the conditions of globalization of economic processes.

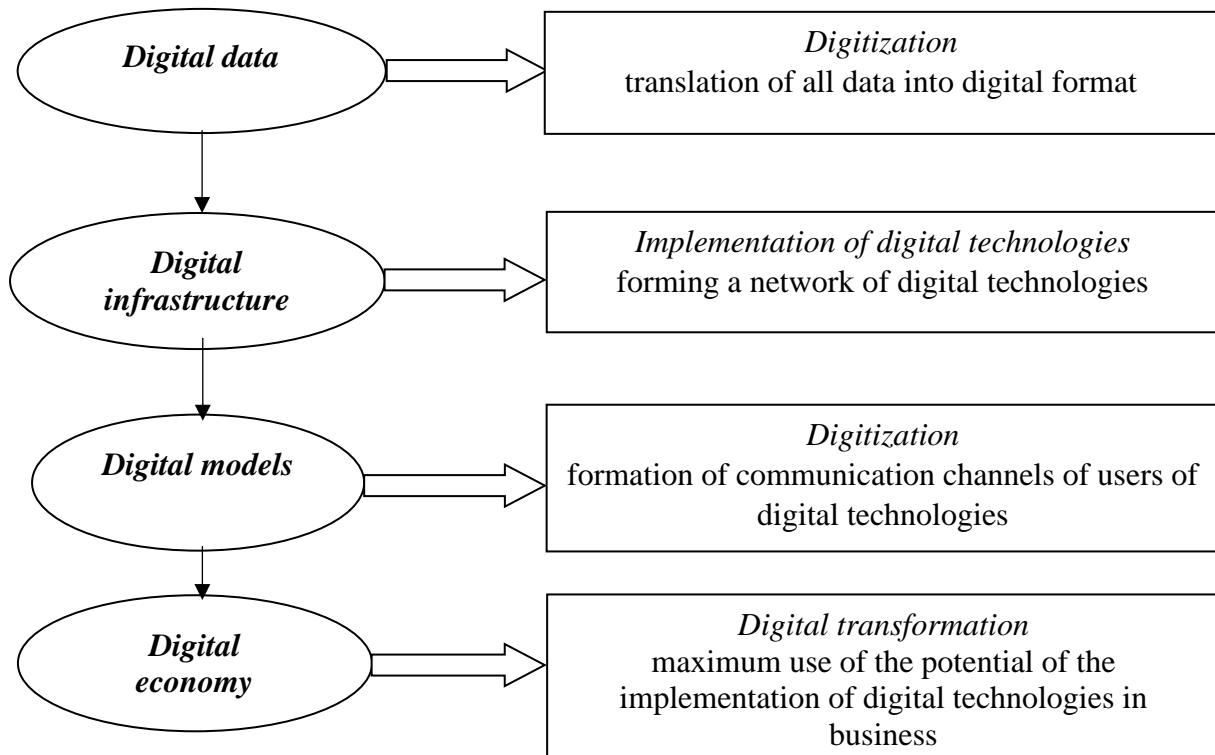


Figure 1. Structure of digital business transformation by levels

Source: authors' own development based on [3,6,8].

Digital transformation of business takes place as a long-term process, which aims to optimize production, business processes to increase the competitiveness of goods and services. This important task in modern conditions is implemented through the gradual digitization of business processes, the transition to electronic document management, the introduction of customer database management systems, the introduction of deep analytics, machine learning, artificial intelligence, the Internet of Things, and much more. According to forecasts, in the coming decade, about 70% of the value created will rely on digital products. If in 2018 the amount of global GDP attributable to digitalized enterprises was 13.5 trillion US dollars, then already in 2023 this indicator is forecast at the level of 53.3 trillion US dollars (that is, almost four times higher), which will be more than half of the nominal global GDP.

In Ukraine, the central organ of executive power is the Ministry of Digital Transformation, which ensures the formation and implementation of state policy in the areas of digitization, digital economy, and digital innovations. Specialists of this ministry developed the Digital Transformation Index of Ukraine's regions. It is one of the tools for measuring the processes of informatization and digitization in 24 regions of the country. This indicator makes it possible to investigate the ability of authorities to make digital decisions, determines the level of digital culture of the population. In general, the Digital Transformation Index of Ukraine's regions contains 8 sub-indices, 28 indicators, and 88 indicators (tabl. 1).

Table 1

The Digital Transformation Index of Ukraine's regions

<i>Regions</i>	<i>2022 year</i>	<i>2023 year</i>	<i>Deviation from 2023 to 2022</i>
Ukraine	0,651	0,632	-0,019
Vinnytsia	0,769	0,777	+0,008
Volyn	0,720	0,831	+0,101
Dnipropetrovsk	0,916	0,908	-0,008
Donetsk	0,469	0,359	-0,110
Zhytomyr	0,692	0,560	-0,132
Zakarpattia	0,756	0,732	-0,024
Zaporizhzhia	0,370	0,289	-0,081
Ivano-Frankivsk	0,683	0,685	+0,002
Kyiv	0,588	0,684	+0,096
Kirovohrad	0,431	0,531	+0,100
Luhansk	0,404	0,404	-
Lviv	0,799	0,891	+0,092
Mykolaiv	0,431	0,441	+0,010
Odesa	0,836	0,785	-0,051
Poltava	0,814	0,833	+0,017
Rivne	0,794	0,727	-0,067
Sumy	0,534	0,178	-0,356
Ternopil	0,910	0,827	-0,083
Kharkiv	0,571	0,787	+0,286
Kherson	0,500	0,316	-0,184
Khmelnyskyi	0,610	0,620	+0,010
Cherkasy	0,716	0,672	-0,044
Chernivtsi	0,540	0,546	+0,006
Chernihiv	0,534	0,553	+0,019

Source: authors' own development based on [9]

The direction of "digital transformation" is defined as one of the main regional development strategies for 7 years in 16 regions, 15 regions have approved and are successfully implementing the tasks of the regional informatization program. Also, in 17 regions, Offices or Departments of digital transformation have been established in administrations. In Ukraine, 14 oblasts have approved regional informatization programs that are part of the National informatization program. Approval of the Regional Program is an important factor in increasing the efficiency and competitiveness of the region.

Regional digitalization, especially in times of war, is necessary to provide high-quality medical, educational, social, administrative and other public services, to ensure access to cellular communication and fixed Internet. It also contributes to improving the level of cyber security and the functioning of critical infrastructure in general.

Regions and communities are an important component of the development of European integration. This is confirmed by the fact that they form a new decade of digital Ukraine, stimulate the implementation of digital and technological changes.

In Ukraine, according to the results of 2023, in the field of digital transformation, the results of the work of many companies were significant achievements, among them: the fundraising company UNITED24 with more than 0.5 billion dollars. The USA collected funds; the launch of the "eRecovery" program, which helped 34,500 applicants receive payments in the total amount of UAH 3.2 billion; the "Brave1" cluster, which financed 137 developments for \$2.3 million. The USA, etc. In addition, 39 new electronic services were implemented on the Diya portal and application, and the number of service users increased to 19.9 million citizens. Ukrainian business received 221.8 million UAH within the educational grant programs of the Diya. Business network of centers and the EU4Business initiative [10].

In the conditions of war to ensure security, favorable conditions have been created for manufacturers of unmanned aerial vehicles, due to which the number of drones on the front has increased hundreds of times. Also, 25,000 Starlink terminals and 900 Tesla Powerwall devices, which provide backup power during blackouts, were brought to Ukraine; the development of fixed Internet and mobile communication, resistance to power outages, etc., is ensured [11].

Recently, the Government of Ukraine continued close cooperation with many countries in the field of digitalization:

1. The support of international partners within the framework of the "Action.Business" project contributed to the realization of 14 national stands of Ukraine at the world's largest sectoral international exhibitions in 2023

2. Representatives of 129 Ukrainian companies in the food, furniture, machine-building, pharmaceutical industries and the IT sector had the opportunity to present their products and services on the markets of the EU, USA, UAE and Japan. Many export contracts worth 352.3 million hryvnias were signed.

3. The European grant competition "Business Bridge" helped to attract EUR 3.75 million in vouchers for 1,500 Ukrainian enterprises that suffered losses as a result of Russian military aggression.

4. Great Britain and Ukraine within the Good Governance Fund project "Revitalization of the business climate in Ukraine" prepared a new platform for the development of the technological ecosystem "UK-Ukraine TechBridge". This project is financed by UK International Development from the government of Great Britain and will combine the potential of the Ukrainian IT industry and the experience of the British technology sector to launch and implement large-scale joint innovation projects, educational programs in IT and trade development [12].

5. The Swiss Agency for Development and Cooperation (SDC) within the International Economic Forum in Davos, on January 17, 2024, in Ukraine House Davos, together with the Ministry of Digital Transformation of Ukraine, jointly held an event dedicated to the development of digital Ukraine. The experience of the development of the digital state was presented, in particular: the WIN-WIN innovation development strategy for the creation of benefits for all involved parties, the

implementation of the "Dream" project, which will contribute to the digital transformation of certain areas [1].

6. Ukraine's participation in the "Digital Europe" program enables domestic IT companies and institutions to receive grants for technological projects. The grant budget amounts to 6 billion euros in areas that are available for Ukraine. Also, companies and institutions can apply for participation in international projects in digital technologies, IT business, artificial intelligence, supercomputers and digital skills faster and easier. This opens up new opportunities for the exchange of experience in the field of digital development between Ukraine and EU countries.

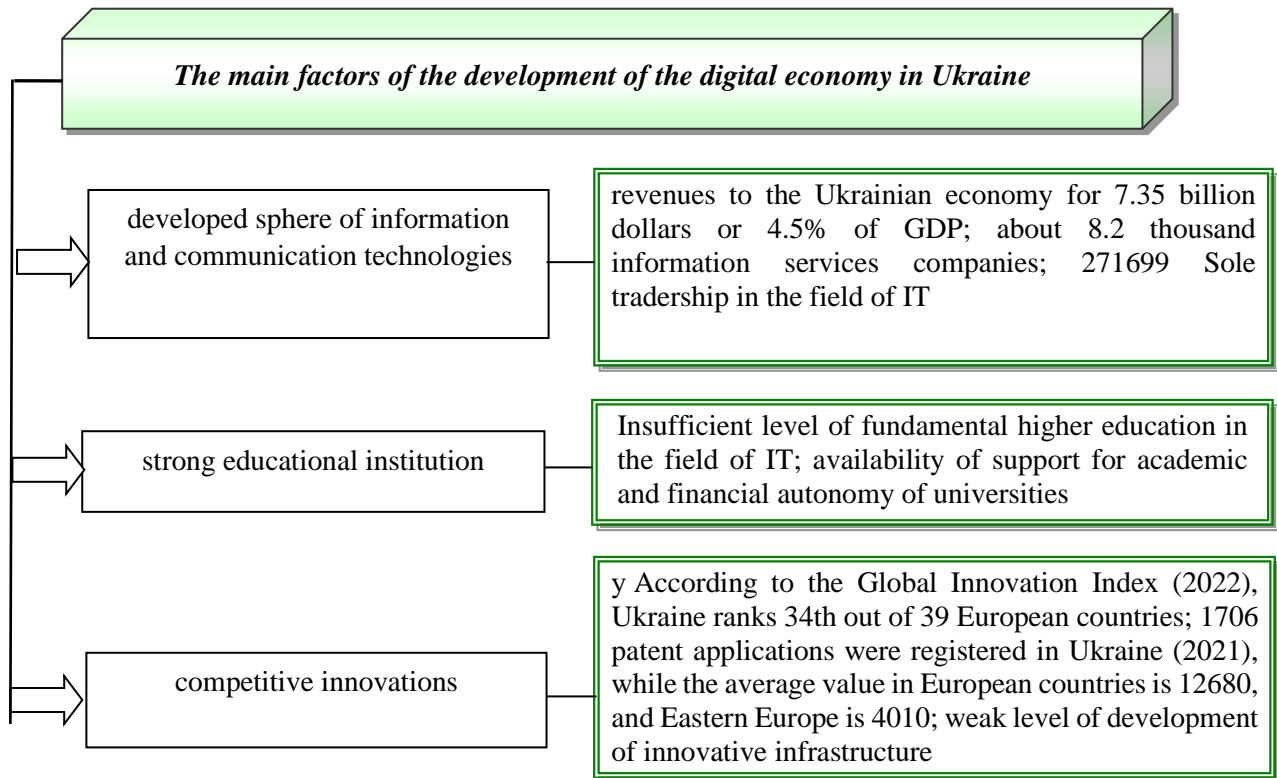


Figure 2. The main factors of the development of the digital economy in Ukraine
Source: authors' own development based on [1,7,8].

It should be noted that the implementation of digital transformation processes in the economy of Ukraine depends on many factors. Factors affecting the digitalization of the country's economy can have both a positive and a negative vector of influence. Thus, the use of experienced specialists with experience in the implementation of digital transformation in EU countries, the implementation of the legal framework of Ukraine to the norms of European legislation will contribute to the introduction of modern digital tools into the economy. In modern realities, the following are the main conditions and factors for the development of the digital economy in Ukraine: a developed field of information and communication technologies, strong educational institutions, and competitive innovations (Fig. 2). It is also necessary to end the Russian invasion on the territory of Ukraine; improvement of tax, banking, customs legislation; increase in financing of the latest scientific developments and implementation of innovations.

Conclusions. Digital transformations in the economy have numerous advantages for society, business and the state. The use of digital technologies will contribute to the development of the internal market of digital services, creating new opportunities for Ukrainian IT companies to expand their activities, thereby increasing employment and attracting highly qualified personnel back to Ukraine.

Therefore, global trends in the field of digital transformation show that the digitalization of all sectors of the economy should become a priority for Ukraine. Ukraine must make a "digital leap" and take its rightful place among the leading economies of the European Union. This requires a solution the following specific tasks:

- creating a favorable environment for the development of companies engaged in engineering and production of complex industrial equipment, technological companies, innovative enterprises, and startups;
- improving state regulation and management of the technological industry's development to modernize Ukraine's production and technological base and ensure sustainable economic development;
- increasing the amount of financing of scientific and innovative activities;
- creating conditions for investment and innovative development in enterprises and industries that promote technological advancement, among others.

The integration of Ukraine into the Single Digital Market of the EU is its constant priority in the modern conditions of transformational changes. The implementation of European approaches to the regulation of digital markets, the formation of a safe and reliable online environment, and the provision of competitive conditions for all participants in digital services markets will be important for Ukraine.

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12. DIGITAL TECHNOLOGIES IN RECRUITING: DEVELOPMENT OF WEB ADDITIONS FOR RECRUITMENT AGENCY

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