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## Digitalization of the Ukrainian economy during a state of war is a necessity of the time

### La digitalización de la economía ucraniana en estado de guerra es una necesidad del momento

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#### Abstract

This article explores the digital economy's importance for Ukraine's development, analyzing its current state, identifying digitization opportunities and threats, and assessing readiness for adopting digital technologies. The study employs a range of methods to assess the extent of development of Ukraine's digital economy. It examines global trends in digital transformation and evaluates Ukraine's digital resources and information infrastructure. The advantages and disadvantages of implementing digital technologies in the Ukrainian economy are identified. The study reveals that Ukraine lacks sufficient digital resources compared to other European countries. However, it highlights the country's active efforts in developing its information infrastructure and emphasizes the importance of digitization for economic growth. The research identifies the main prerequisites for the global era of the digital economy and establishes the significance of information and communication technologies for

#### Resumen

Este artículo explora la importancia de la economía digital para el desarrollo de Ucrania, analizando su estado actual, identificando las oportunidades y amenazas de la digitalización y evaluando la preparación para adoptar tecnologías digitales. La investigación utiliza varios métodos para determinar el nivel de formación de la economía digital de Ucrania. Examina las tendencias mundiales en transformación digital y evalúa los recursos digitales y la infraestructura de información de Ucrania. Se identifican las ventajas y desventajas de la implantación de las tecnologías digitales en la economía ucraniana. El estudio revela que Ucrania carece de recursos digitales suficientes en comparación con otros países europeos. Sin embargo, destaca los esfuerzos activos del país en el desarrollo de su infraestructura de información y subraya la importancia de la digitalización para el crecimiento económico. La investigación identifica los principales requisitos previos para la era global de la economía digital y establece la importancia de

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economic development and people's well-being. Conclusion: Based on the analysis of Ukraine's digital economy, the study concludes that digitization should be a priority direction for the country. It proposes key measures for effectively utilizing innovative technologies and stimulating the development of the Ukrainian digital economy in the "digital era." Expediting the advancement of the Ukrainian economy in the realm of innovative technologies is considered essential for its future progress and well-being.

**Keywords:** digitalization, digital economy, European integration process, digital technologies, digital transformation.

## Introduction

In an era marked by the rapid proliferation of information and communication digital technologies, their role in economic growth and social development is undeniable. The worldwide adoption of these technologies has been swift, although some regions, such as Ukraine, have experienced a slower pace of integration compared to highly developed countries. As we delve into this study, we will explore the imperative need to strengthen the application of digital technologies in various aspects of production and social life, with a particular focus on the economic sphere (Order No. 67-p, 2018). Notably, Ukraine stands as the sole European nation lacking sufficient digital resources for a complete transformation into a digital economy platform. This lag can be attributed, in part, to the ongoing full-scale war that continually strains the nation's economy and impedes its transition to a new digital era.

Therefore, the relevance of our research is centered around shedding light on the contemporary aspects of the formation of Ukraine's domestic digital economy. We aim to analyze the main trends and explore the potential for its development on the path to Eurointegration. In this endeavor, we will address the following research questions:

### Research Questions:

To what extent has Ukraine embraced digital technologies in various sectors of its economy and society?

What are the primary challenges and barriers hindering Ukraine's digital transformation?

las tecnologías de la información y la comunicación para el desarrollo económico y el bienestar de las personas. Conclusiones: Basándose en el análisis de la economía digital de Ucrania, el estudio concluye que la digitalización debe ser una dirección prioritaria para el país. Propone medidas clave para utilizar eficazmente las tecnologías innovadoras y estimular el desarrollo de la economía digital ucraniana en la "era digital". Acelerar el desarrollo de la economía ucraniana en el ámbito de las tecnologías innovadoras se considera crucial para su crecimiento y prosperidad futuros.

**Palabras clave:** digitalización, economía digital, proceso de integración europea, tecnologías digitales, transformación digital.

What steps should Ukraine take to ensure a seamless process of digitalizing its economy and addressing the challenges it faces in this endeavor?

## Methodology

The following methods are used in the process of researching the digitization of economic processes in Ukraine:

- **Economic-statistical method.** This method is based on processing a large amount of statistical and empirical data. In the context of military conflict, it is essential to collect and analyze data on the state of the economy before, during, and after the conflict. This allows for identifying shifts and changes in economic processes, as well as identifying potential sources of instability or new opportunities for digitization. The present article includes processed data on the implementation of certain stages of digitization starting from 2016 up to the present day.
- **Thematic method.** This method allows for in-depth study of specific elements of the researched phenomenon. In the context of researching the digitization of economic processes, it is crucial to focus on key sectors that can benefit the most from digital technologies during the conflict. The article analyzes the most essential projects during the state of war, including services for internally displaced persons, payment services, job searches, digital literacy enhancement, and many others.
- **Schematic method.** The use of diagrams and graphs helps visualize complex

researched phenomena, processes, and laws. In the context of studying the digitization of the economy, diagrams can help identify relationships between economic factors and the impact of digital innovations on economic development. The article schematically presents theoretical approaches to understanding the concept of "digitization" of the economy, the directions of project financing under the "Digital Europe" program, the implementation of digital technologies, and their impact on Ukraine's GDP by 2030, as well as the prospects of digitizing the Ukrainian economy from 2021 to 2030.

- **Methods of analysis, synthesis, and comparison.** These methods allow for a detailed study of the researched phenomenon through the analysis of its key elements, consideration of the synergistic effect between digital technologies and economic processes, and comparison of achievements and challenges of digitization in Ukraine with other countries. The article analyzes Ukraine's position on digitization among European countries, the main challenges in improving the digitization process, and the necessary steps to improve Ukraine's ranking among European countries.

The use of these research methods allows for obtaining a systematic and analytical understanding of the digitization of the economy in the conditions of military conflict in Ukraine. Such an approach helps to comprehend which sectors may be particularly vulnerable and, conversely, which sectors may have opportunities for accelerated development through the implementation of digital innovations.

### Theoretical Framework or Literature Review

The primary trajectory in the evolution of contemporary society is the digitization of all its spheres (Okhrimenko et al., 2019). Modern information technologies are an integral part of our lives and constantly influence various economic, social, technical, and managerial systems (Plakhotnik & Pavlenko, 2022; Order No. 67-p, 2018).

The processes of digitization play a vital role in the development of economic activity and the security of national economies (Rudenko, 2018; Tokar, 2022); Miethlich et al., 2020). As a result, the establishment and rapid development of the digital economy, characterized by the

comprehensive implementation and application of new information technologies in all areas of economic life, are global trends in the development of the world economy (Yanenkova, 2017; Dovgal & Makhova, 2020; Tokar et al., 2023; Kasianova, et al., 2020). Modern scientific literature defines digitization as an integral component of the contemporary global economy, which contributes to more rational resource management (Borblik, 2022), optimization of business management models (Bushman, 2021), and structural changes (Hlazova, 2021). A collective of researchers underlines that digital transformation is a natural process of societal and business development (Riabov & Riabova, 2021; Zhavoronok et al., 2022; Hlazova, 2021; Vdovichena et al., 2022). This evolutionary stage is unique as it eliminates barriers and globalizes the market. Success or failure in this so-called race will divide the world into two classes: conscious leader countries that create values and innovations shaping the future, and countries that lag in civilization (Dorosh-Kizym et al., 2020). According to Yanenkova (2017), the basis for successful integration into global value chains lies in developed innovative ecosystems of high-tech industries, which can serve as a foundation for advanced sectoral and regional clusters, and where deeper smart specialization takes place.

A similar view is held by Dovgal & Makhova (2020), noting that there is a direct link between the development of the digital economy in a country and the well-being of its population: without improved well-being, the real establishment of the digital economy becomes challenging, and without it, the growth of well-being becomes practically impossible.

Therefore, as emphasized by Bank (2021), the digital development of Ukraine plays a significant role in accelerating the country's economic and social development, directing its economic and innovative potential toward international competitiveness and increasing the efficiency of the Ukrainian industry.

The establishment of the digital economy can be seen as an attractor, a gravity point in the trajectory of the country's economic development. Unfortunately, Ukraine currently lacks a unified view on the transition to the digital economy (Mosiichuk & Poita, 2020), which is the main reason for the divergence of efforts and low effectiveness in the country's digital sphere (Novikova, Diachenko, & Holovnia, 2022). Researchers note that Ukraine, with significant IT potential, is operating below its digital capabilities (Spivakovskyy et al.,

2021). The measures outlined in the adopted concepts lay the foundation for digital transformation aimed at digitizing business processes (Viknianska et al., 2021). It's crucial to acknowledge that the advancement of digital technologies is inexorable in today's world, and the level of effectiveness and the future we'll inhabit largely hinge on our choices and actions. A group of researchers led by Novak et al. (2020) emphasizes that the implementation of digital technologies requires Ukrainian policymakers and public figures to apply economic, production, and social mechanisms aimed at supporting precise digital development, preparing qualified specialists with up-to-date knowledge, and creating a favorable atmosphere for the development of domestic digitization. Despite this, a significant number of problems regarding the further development of the digital economy remain insufficiently studied. The dynamic development in the field of digital innovations requires regular research and the development of more advanced methods to accelerate their implementation into the national economy.

## Results and Discussion

To what extent has Ukraine embraced digital technologies in various sectors of its economy and society?

The digital economy, as a key feature of modern times, influences all spheres of social life. As a global economic trend, digitization has varying effects on these spheres, but the extent of its impact on a country's economic and social environment determines its position in the

international community. The process of digitization not only plays an important role in the social and economic development of a country but also helps channel innovation potential in the right direction and establish competitiveness in the global market (Sokolovska, 2020). Digital technologies form the basis of a circular economy. By a closed-loop economy, we mean the secondary, nonlinear, closed utilization of all available material and natural resources to ensure production and consumption without losing the accessibility of goods and services developed through innovation and the use of information technologies (Ladonko et al., 2022). The systematic combination of digital technologies provides the greatest economic effect in the practical application across various sectors of social production, ranging from industry to various service sectors (Plakhotnik & Pavlenko, 2022). The term "digital economy" was first used in 1995 by American scientist Nicholas Negroponte from the Massachusetts Institute of Technology, who described the advantages of utilizing new information and communication technologies as a factor in shaping a new economy (Rudenko, 2018). To establish the fundamental prerequisites for the effective integration of digitization into the economy, it is imperative to precisely articulate its essence and fundamental components. It's worth noting that a universally accepted interpretation of the term "digitalization of the economy" within economic theory is currently lacking (Borblik, 2022). An analysis of theoretical developments has allowed for the systematization of theoretical approaches to defining the concept of the digitization of the economy (Table 1).

**Table 1.**  
*Theoretical approaches to defining the concept of economic digitalization*

Name of the approach	Essence of interpretation
Time-space	A catalyst for worldwide economic expansion with the goal of hastening economic progress, enhancing the efficiency of established sectors, fostering the emergence of fresh markets and industries, and realizing inclusive, sustainable growth.
Functional	A new type of economy based on knowledge and digital technologies that creates new digital skills and opportunities for society, business, and the country. The utilization of digital information technologies for the consumption of goods and services, including e-government and online commerce, among others.
Communicative	This type of economic activity emerges as a consequence of countless network connections among individuals, companies, devices, data, and operations. At its core, this phenomenon relies on hyperconnectivity, characterized by the increasing interlinking of individuals, organizations, and machines, driven by the Internet and mobile technologies.
Processual	The development of a technology-driven system aimed at generating additional income streams and broadening the horizons of economic possibilities for a business entity. The proactive incorporation and real-world utilization of digital technologies for gathering, processing, storing, converting, and transmitting information across all domains of human endeavor.
Systematic	A process or ecosystem that encompasses the comprehensive conversion of all sectors of economic activity into a digital economy in its broadest interpretation.

Source: (Borblik, 2022; Ministry of Electronics and Information Technology, 2021).

When systematizing the perspectives on comprehending the core of economic digitalization, it's crucial to recognize that the temporal and spatial approach regards it as a phase within the evolution of the global economy. The functional approach delves into the essence of economic digitalization by emphasizing the content and crucial activities conducted in establishing an economic framework via the Internet. Meanwhile, the communicative approach uncovers economic digitalization as the process of interaction among diverse business entities. The processual approach centers on the immediate transformation of the economic system. Lastly, the systematic approach conceives the digitalization of the economy as a unified system composed of interconnected components (Sokolovska, 2020).

Hlazova (2021) states that digitalization of the economy allows:

- improving business processes in the country;
- creating new products and services using Internet technologies, cloud services, virtual reality, and artificial intelligence;
- reducing costs by minimizing personnel through automation and robotization of business processes;
- offering completely new business solutions: peer-to-peer systems, modern insurance models, mobile educational applications, alternatives to banking services, personalized advertising, and individual targeting for online shoppers.

Before the adoption of the Concept, Ukraine had introduced the Digital Agenda in 2016, with the goal of endorsing key areas, initiatives, and digitization projects until 2020, aligning with the Europe 2020 Strategy to enhance opportunities for Ukraine's development in partnership with the EU. This document outlined the foundational principles for advancing Ukraine's digital landscape on a national scale and laid the groundwork for the growth of the digital economy (Ministry of Economic Development and Trade of Ukraine, 2020).

According to Yanovska et al. (2019), the main statements of this document were the following:

- every citizen has the right to access digital technologies, the Internet of Knowledge;
- digital technologies should become a tool for achieving certain development goals of various sectors of the national economy;

- the possibility of additional investment attraction;
- creation of predominantly Ukrainian content to meet national needs, which will contribute to the development of not only the economy but also social and cultural development;
- Ukraine's integration into the global and European communication system;
- the need to create digitalization standards that will increase competition and reduce costs and production costs;
- compliance with international standards in the financial sector;
- avoiding the orientation of the digital economy exclusively in private business;
- ensuring cybersecurity measures at the state level;
- protecting the rights of Internet consumers;
- the government should play a key role in preparing, developing, and promoting national digital strategies.

Over the next few years, the Ministry and Council of Digital Transformation developed a series of projects that became particularly important in COVID-19 and during the state of war in Ukraine (Plakhotnik & Pavlenko, 2022). Among the projects presented were e-School, e-Notary, e-Social Protection, e-Property, e-Permit, and many others. Additionally, an important step in this direction was the adoption of the Law on March 30, 2021, "On Amendments to the Law of Ukraine 'On the Unified State Demographic Register and Documents Confirming the Citizenship of Ukraine, Identifying a Person or Their Special Status'.

In the context of war, the issue of migration at the national level has also become particularly relevant. In Ukraine, by October 30, 2022, more than 7 million Ukrainians were internally displaced due to the war. More than a million of them are children. Although 60% of the territory of Zaporizhzhia region was occupied during the Russian military invasion, the city of Zaporizhzhia nevertheless remains a humanitarian hub for internally displaced persons (IDPs) from Zaporizhzhia, Donetsk, Kharkiv, Sumy, Kherson and other regions of Ukraine (Plakhotnik & Pavlenko, 2022).

The Ministry of Digital Transformation has developed new government services for internally displaced persons (IDPs) on the unified "Diia" portal. Among these services are services related to registration, payments, job search, business registration, obtaining candidate status for adoption, family creation, childbirth, and improving digital literacy through



educational mini-series, and many others (Zhavoronok et al., 2022). The next area of activity is countering the aggressor in cyberspace, which is referred to as the "fifth theater" of military operations. In the conditions of a large-scale war with Russia, Ukraine is repelling constant aggression and paying attention to its cybersecurity. Projects related to this include CryptoFund, IT Army, Starlink, digital blockade, and others. Since March 2022, the Ministry of Digital Transformation has identified three key directions of activity for its team: firstly, utilizing Ukraine's IT Army to counter invaders in cyberspace; secondly, exerting sanction pressure on Western companies; and thirdly, developing new products.

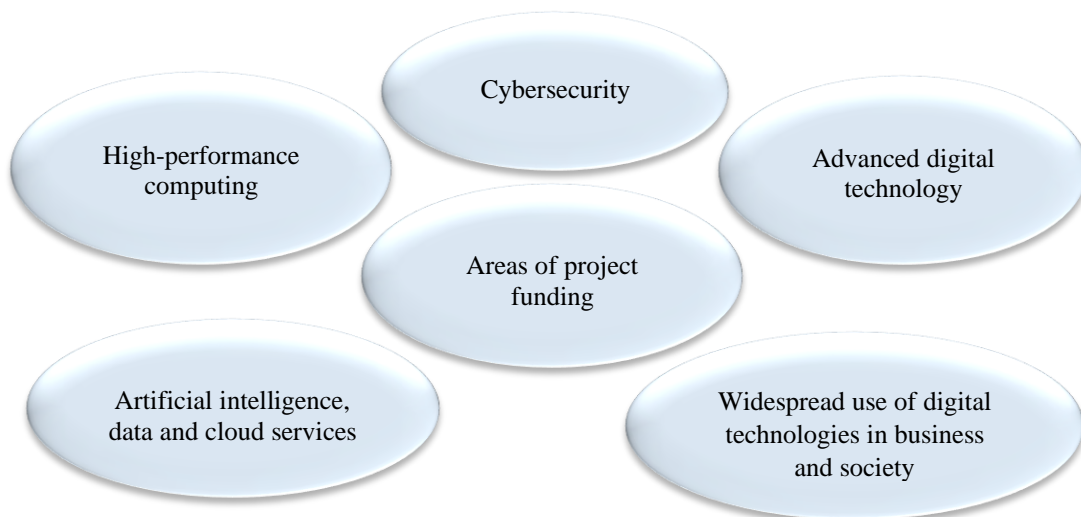
The most powerful volunteer team, consisting of over 300,000 individuals, has been created to unite for Ukraine's victory in cyberspace. Activists have been engaged in further attacks on the enemy's state and private resources. It is also worth noting that military bonds have been issued to support the Armed Forces of Ukraine and our economy. Ukraine actively cooperates with leading organizations to raise awareness of cybersecurity issues at all levels of commercial and non-profit entities (Plakhotnik & Pavlenko, 2022).

ISACA has opened a branch in Kyiv for the development of methodologies and standards in IT management, audit, and security. It provides advanced guidance to cybersecurity professionals, assisting organizations and experts in overcoming challenges in technology and information management, control, and

facilitating the implementation of IT management processes (Tokar, 2022).

A subdivision called CERT-UA, the State Center for the Protection of Information and Telecommunication Systems, has also been established. It detects and responds to cyber incidents and ensures the mitigation of threats to both foreign and private sectors. It provides cybersecurity professionals with significant resources to assist them in information and technology management and control. Various educational programs in cybersecurity are also being introduced in higher education institutions (Bulkot, 2021). The third direction is the further development of the information technology industry, exporting its services, fulfilling contracts, generating foreign currency inflows, and supporting the domestic economy. Ukraine's status as a candidate country for EU membership and the opportunities provided within the "Digital Europe" program for financing various digitalization projects will contribute to the progressive development of the digital economy in the conditions of a state of war. The program mentioned contributes to the process of digitalization in European countries in various ways. In order to participate in the program, countries are required to make a contribution. However, the EU exempted Ukraine from paying the contribution for the year 2022 and provided a 95% discount on contributions for the years 2023-2027 (Plakhotnik & Pavlenko, 2022).

The project financing under the "Digital Europe" program operates in five main directions (Figure 1).

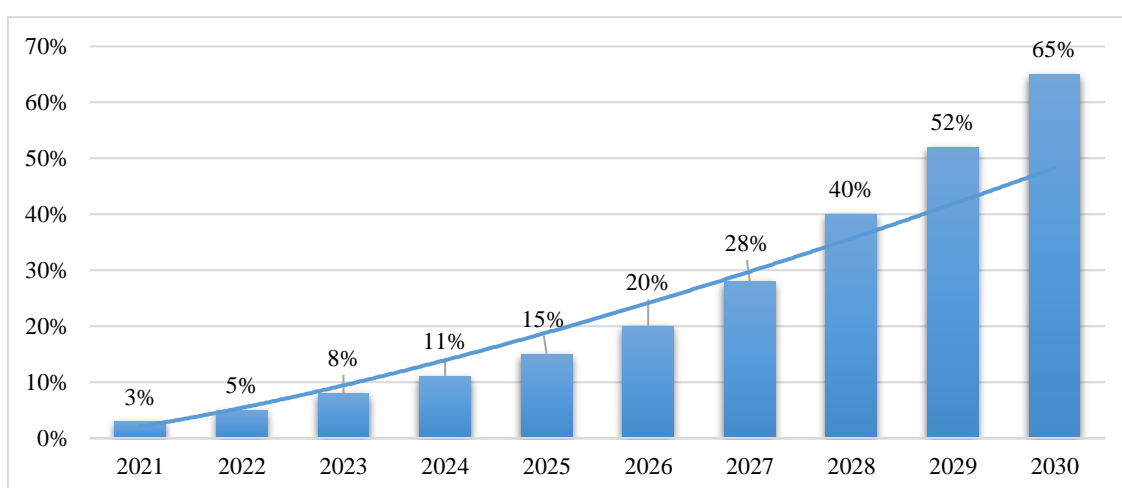


**Figure 1.** Main areas of project funding under the Digital Europe program  
Source: created by the author based on (Plakhotnik & Pavlenko, 2022).

As per the Ukrainian Institute for the Future, the "Economic Strategy of Ukraine - 2030" outlines two potential paths for the growth of Ukraine's digital economy. These scenarios are contingent on the evaluation of the significance and urgency of implementing substantial changes in the conventional economy: the inertia (evolutionary) scenario and the target (compelled) scenario. (Ukrainian Institute of the Future, 2021). The inertia scenario foresees the persistence of historical patterns, encompassing the gradual adoption of technology, economic digitization, and human capital development. In this scenario, Ukraine's economy is expected to remain inefficient, labor migration will persist, and domestic production will struggle to maintain competitiveness in international markets.

Conversely, the target scenario envisions a swift transformation of the Ukrainian economy over a 5-10 years period, with a substantial portion of the digital economy, accounting for up to 65% of GDP. Realizing a GDP of 1 trillion dollars is within Ukraine's reach, but it necessitates the integration of information technologies across all sectors of the economy (Ukrainian Institute of the Future, 2021).

Figure 2 shows that by 2030, digital products will account for 65% of the overall economy. However, to achieve this, the Ukrainian market needs to produce and consume information products worth 4 billion dollars by 2024, and by 2030, this figure is expected to reach approximately 16 billion dollars.



**Figure 2.** Adoption of digital technologies and their impact on Ukraine's GDP by 2030

Source: (Borblik, 2022; Ukrainian Institute of the Future, 2021).

According to the Ukrainian Institute of the Future (2021), to achieve this goal, it is necessary to

invest SD 70 billion in digital technologies over the next ten years (Table 2)

**Table 2.**

*Prospects for the digitalization of Ukraine's economy in 2021-2030*

Indicators	2021	2025	2030	Total 2021-2030
Investments in digital infrastructure, USD billion.	0,7	3	6	16
Investments in the digitalization of business, manufacturing, and industry, USD billion.	1,5	5	14	70
Increase in productivity through digitalization, %.	1,1	1	13	
Additional GDP generated by digitalization, USD billion.	17	93	280	1 260
Additional GDP, %.	11	44	95	240
Number of new vacancies (excluding the export IT industry), thousand people	150	300	700	
Share of the digital economy in Ukraine (in total GDP), %.	3	15	65	

Source: created by the author based on (Ukrainian Institute of the Future, 2021)

The process of digitization is of crucial importance for the Ukrainian economy, as it can increase the number of new jobs and contribute to further growth in annual GDP. The development of new segments and productions

will accelerate business and industrial development (Hlazova, 2021). Furthermore, researchers argue (Plakhotnik & Pavlenko, 2022).

that the labor market will create an additional 700,000 jobs if innovations are implemented in all sectors of the economy. Financing for digitization can come from both domestic and external markets. Investments in the digitalization of business, manufacturing, and industry, USD billion.

Tokar (2022) note that according to the Network Readiness Index and the Digital Competitiveness Index in 2021, Ukraine ranked 50th in terms of the level of digitalization of its economy.

What are the primary challenges and barriers hindering Ukraine's digital transformation?

We believe that this situation is undoubtedly associated with a series of major systemic problems that exist in Ukrainian society and the national economy.

In our opinion, these problems can be categorized into the following groups:

1. Economic barriers that hinder information and technological development within the national economy.
2. Institutional barriers arise in the functioning of state institutions and their participation in supporting the processes of digitalization in society.
3. Institutional barriers of a social nature, are characterized by historical formation and complexity in finding short-term solutions.
4. Infrastructure barriers arise in the sphere of supporting digitalization processes within the functioning of economic systems at various levels.

Yes, economic issues are always relevant to Ukraine's economy, particularly in terms of its innovative development. The current process of digitalization in the national economy is quite chaotic. It should be noted that the country has a certain system of support for the implementation and utilization of such technologies by various enterprises. On the other hand, the digitalization of businesses is primarily the task of their owners. However, this requires resources, particularly affordable funding. In this regard, there are also several problems in our country. Unfortunately, credits for business entities are currently too expensive. Consequently, the processes of digitalization primarily occur with the help of funds from business owners. Entrepreneurs whose businesses are fully dependent on new information and communication technologies actively implement digitalization (Spivakovskyy et al., 2021).

Therefore, the systemic economic problems that hinder the development of Ukraine's digital economy include a lack of accessible financial resources for small and medium-sized enterprises; the absence of systematic and consistent support for the development of domestic ICT; cyclical macroeconomic instability; low levels of household income, etc.

Institutional barriers directly arise in the sphere of state regulation of the digitalization processes in Ukrainian society and are mainly related to the ineffective functioning of government bodies, inadequate levels of interaction, and low quality of regulatory policies implemented in the country (Verbivska, Lutsiv, Dehtyarova, Melnyk & Domin, 2022). These barriers include systemic destructive processes within government institutions (corruption, lobbying, shadow economy influence), discrepancies in the implementation of adopted regulatory acts, insufficient funding for measures defined by legislative acts, divergent priorities of digitalization between Ukrainian society and economic entities, discrepancies in efforts to implement specific measures to enhance the use of digital technologies, inadequate participation in the development of digital infrastructure, mismatch between state financial capabilities and measures intended to stimulate digitalization, low effectiveness of state support and regulation of scientific development, and insufficient digital competence of government officials.

Institutional problems are complex and may require a longer-term perspective for resolution. However, addressing these issues allows for the formulation of a firm foundation for the further implementation of digital technologies across all sectors of society. Such barriers are undoubtedly associated with historical aspects of the country's development, the peculiarities of national economic development, openness, and participation in the global economy. These obstacles include low levels of trust in government institutions, insufficient digital literacy among the population, a tendency towards informal economic activities, difficulties in adapting business entities to new digital technologies, value orientations of the younger generation, a tendency towards studying and living abroad, the digital divide in the digital economy, low levels of security and trust among internet users, insufficient levels of information culture, and more.

Infrastructure barriers to the development of the digital economy are directly linked to economic problems. In this context, the systematic



importance of digital infrastructure for the development of information and communication technologies in Ukrainian society is primarily considered Plakhotnik & Pavlenko (2022) including the following aspects the high cost of mobile communication, uneven access to network technologies, regional digital inequality, insufficient competition among companies in the telecommunications sector, underdeveloped satellite communication, and the absence of a stable national policy regarding the import of equipment necessary for the development of network infrastructure.

What steps should Ukraine take to ensure a seamless process of digitalizing its economy and addressing the challenges it faces in this endeavor?

Therefore, to ensure a seamless process of digitalizing the economy, the following measures are envisaged:

1. Reduce regulatory and administrative burdens for businesses and introduce new support tools for small and medium-sized enterprises by implementing a list of market access regulation instruments based on a risk-oriented approach, digitalization, and integration of tools.
2. Increase access to markets for high-value-added products, including transitioning to an innovative economy using digital technologies, ensuring full access to EU and G7 markets, including by:
  - Developing innovative priorities to facilitate the transition to an innovative economy.
  - Creating favorable conditions for exporting products and developing innovative digital technologies (Verbivska et al., 2022).
  - Developing a support system for innovation-driven economic development through innovative priorities and tax incentives for entrepreneurs (Tokar et al., 2023).
  - Providing primary and targeted (priority) financing for innovation development sectors (Sokolovska, 2020).
  - Improving the intellectual property protection system.

The identified infrastructure barriers to the development of the digital economy in Ukraine highlight significant challenges that need to be addressed. The high cost of mobile communication, uneven access to network technologies, regional digital inequality, and insufficient competition among telecommunications companies are key issues

that hinder the widespread adoption of digital technologies. Overall, addressing the infrastructure barriers and implementing the suggested measures can pave the way for a thriving digital economy, stimulating economic growth, and positioning Ukraine as a competitive player in the global digital landscape.

## Conclusions

The findings of the conducted research reveal a step-by-step shift of the national economy towards the digital realm, while taking into account the aspects of European integration. Even in the midst of the ongoing conflict, Ukraine persists in its digital transformation efforts and the advancement of the digital economy. Efforts are being made to ensure institutional support for these processes and create conditions for innovative business activities. The participation of Ukraine in the "Digital Europe" program plays a significant role in this process, aiming to accelerate economic recovery and digital transformation in participating countries. Research on the main obstacles to the successful digitalization of the Ukrainian economy shows that significant attention needs to be paid to the economic, institutional, institutional, and infrastructure aspects of the economic sphere. In our opinion, the successful implementation of a seamless process of digitalizing the economy requires the implementation of a list of market access regulation instruments based on a risk-oriented approach, digitalization, and integration of tools, as well as transitioning to an innovative economy using digital technologies and ensuring full access to EU and G7 markets.

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