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## TRANSFORMATION OF ENTREPRENEURSHIP IN THE CONDITIONS OF THE DIGITAL ECONOMY

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**STATEMENT OF THE PROBLEM.** At the current stage of economic development, Ukrainian enterprises are forced to operate under martial law, which is accompanied by a high level of competitive pressure both in the domestic and international markets. These circumstances necessitate the introduction of innovative production technologies, the use of advanced information systems and the application of effective management approaches. This will help to increase the adaptability of enterprises to a changing external environment and ensure their sustainable development.

**THE PURPOSE OF THE STUDY.** The research focuses on studying the essence of the digital economy in Ukraine and analyzing the specifics of transformation processes in the field of entrepreneurship in the context of digitalization. The main goal is to identify key trends, challenges and prospects that contribute to the formation of an effective digital business ecosystem.

**THE RESULTS.** The study identified key trends in the digital economy, including the Internet of Things, artificial intelligence, and digital platforms. Particular attention is paid to their impact on business processes, organizational models, and consumer behavior. In addition, the main barriers to digital transformation are identified, including technological backwardness and uneven access to digital infrastructure.

**CONCLUSIONS.** The study concludes that digital transformation offers substantial opportunities for economic growth, provided that barriers such as inadequate infrastructure and digital illiteracy are addressed. Recommendations include fostering digital literacy, encouraging investments in innovation, and implementing national-level digital transformation projects to accelerate economic development in Ukraine.

**KEYWORDS:** digital economy; system transformations; trends; entrepreneurship.

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22	1	0

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## ТРАНСФОРМАЦІЯ ПІДПРИЄМНИЦТВА В УМОВАХ ЦИФРОВОЇ ЕКОНОМІКИ

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**ПОСТАНОВКА ПРОБЛЕМИ.** На сучасному етапі розвитку економіки українські підприємства змушені функціонувати в умовах воєнного стану, що супроводжується високим рівнем конкурентного тиску як на внутрішньому, так і на міжнародному ринках. Такі обставини зумовлюють необхідність впровадження інноваційних технологій виробництва, використання передових інформаційних систем та застосування ефективних управлінських підходів. Це сприятиме підвищенню адаптивності підприємств до мінливого зовнішнього середовища та забезпеченню їхнього сталого розвитку.

**МЕТА ДОСЛІДЖЕННЯ.** Дослідження зосереджене на вивченні сутності цифрової економіки в Україні та аналізі специфіки трансформаційних процесів у сфері підприємництва в умовах цифровізації. Основна мета полягає у визначенні ключових тенденцій, викликів і перспектив, що сприяють формуванню ефективної цифрової бізнес-екосистеми.

**РЕЗУЛЬТАТ.** У межах дослідження ідентифіковано ключові тенденції цифрової економіки, зокрема Інтернет речей, штучний інтелект і цифрові платформи. Особливу увагу приділено їхньому впливу на бізнес-процеси, організаційні моделі та споживчу поведінку. Окрім цього, визначено основні бар'єри цифрової трансформації, серед яких технологічна відсталість та нерівномірний доступ до цифрової інфраструктури.

**ВИСНОВКИ.** Зроблено висновок, що цифрова трансформація створює значний потенціал для економічного зростання, проте його реалізація можлива лише за умови подолання таких перешкод, як недостатній розвиток інфраструктури та низький рівень цифрової компетентності. Серед основних рекомендацій – розвиток цифрової освіти, стимулювання інвестицій в інноваційні технології та впровадження національних ініціатив з цифрової трансформації з метою прискорення економічного розвитку України.

**КЛЮЧОВІ СЛОВА:** цифрова економіка; системні трансформації; тренди; підприємництво.

**Formulation of the problem.** In the current context, Ukrainian enterprises operate under martial law, facing competitive pressure from both national and foreign markets. These challenges necessitate adopting innovative production methods, advanced information systems, and effective organizational strategies to adapt to dynamic external conditions and ensure sustainable development.

**This study aims** to explore the essence of the digital economy in Ukraine and examine the specific features of entrepreneurship transformation under digitalization. It also seeks to identify key trends, challenges, and opportunities for fostering a digital business ecosystem.

**Analysis of recent research and publications.** The issue of the development of the digital economy is very relevant all over the world and is in the focus of attention of a number of recognized scientists. The theoretical development and functioning of the digital economy are explored in their works by V. Aizekson (2017), I.V. Saukh, V.V. Shimanska and T.V. Momont (2019), M.B. Kulynych (2019), N.M. Kraus, O.P. Goloborodko and K.M. Kraus (2018), V.B. Groysman (2017), N.M. Kraus and O.S. Kryvoruchko (2017), O.V. Shcherbatenko (2018), V.V. Apalkova (2015), L.Ya. Maliuta and L.V. Dermanska (2019), Yu. Pyvovarov (2017) etc. The problem of entrepreneurship development in the conditions of the digital economy is revealed in scientific works by V.V. Diatlova and S.V. Vozniuk (2013), L.Yu. Valaga (2014), O.O. Nagorna (2014), H.T. Karcheva, D.V. Ohorodnia and V.A. Openko (2017) etc.

**The purpose of the article** is to reveal the essence of the digital economy in Ukraine and to determine the peculiarities of entrepreneurial activity in the context of its further development.

**Materials and Methods.** The study is based on the works of domestic and foreign scholars who analyze trends in the development of entrepreneurship in the digital economy, combining scientific and practical approaches.

**The main content of the study.** Large-scale technological changes, which significantly expand the production capabilities of society, at the same time cause the transformation of economic relations. This, in turn, leads to the formation of new scientific categories and concepts that define current trends in the digital economy.

Analyzing the digital economy with a historical perspective allows us to identify specific features that are often overlooked by researchers who focus exclusively on current experience and current trends.

Digitization is one of the key drivers of economic growth in the near term. In addition to the direct increase in productivity due to the introduction of digital technologies, there are a number of indirect benefits of digitalization. These include time optimization, the formation of new consumer needs, the expansion

of the range of goods and services, and the improvement of their quality and value.

The main vectors of digital technology development are trends that are already being actively implemented in Ukraine, including

- use of data as the main source of competitive advantage;
- development of the Internet of Things (IoT);
- digital transformation both at the level of individual enterprises and on the scale of entire industries;
- spread of the sharing economy;
- virtualization of IT infrastructure;
- introduction of artificial intelligence (AI);
- development of digital platforms.

Digital technologies are fundamentally changing the future, and a strategic approach to digital transformation is designed to make these changes as effective as possible for business.

One of the key features of the definition of the “digital economy” is the definition of its boundaries. Most researchers are of the opinion that it is impossible to draw a clear line that would allow to unambiguously separate the economic activities of enterprises belonging to the digital economy from traditional forms of management.

The emergence of a significant number of new categories that reflect the impact of information processes on economic activity has necessitated the systematization of the terminology of economic science and contributed to the formation of new concepts. For example, the scientific discourse has established concepts that describe economic relations related to the production, processing and use of information, the development of digital technologies and their penetration into economic processes, including the information economy, knowledge economy, Internet economy, innovation economy, etc.

The evolution of economic processes is accompanied by the growing role of intangible production, which leads to qualitative changes in the structure of economic development. In modern conditions, there is a shift in the balance between tangible and intangible assets, which leads to an increase in the importance of intangible factors, categories and concepts in the functioning of economic systems.

Optimization of the management system in the context of digital transformation involves determining the criteria for its effectiveness, which is determined by the expected cumulative effect of digitalization. In particular, improving the efficiency of management processes in the digital environment contributes to increased labor productivity, reduced operating costs, and increased financial performance of the enterprise.

The development of information support for management activities requires a significant expansion of the toolkit of information and analytical functions, which is a natural response to dynamic changes in both the internal and external environment of the enterprise.

Thus, the modernization of the enterprise management system, including the introduction of advanced information technologies, implementation of organizational transformations, adaptation of innovative management methods, development of corporate culture, integration of the digital strategy into the overall business strategy, and improvement of the digital competence of personnel, is a prerequisite for digital transformation. At the same time, these measures alone do not guarantee the achievement of the expected results, but require a comprehensive approach and systematic integration into the management activities of the enterprise.

An effective management system, equipping staff with innovative technologies and creating a sustainable digital culture, not only increases productivity but also promotes the development of organizational thinking focused on optimizing work processes. This makes it possible to work more efficiently, not just more intensively, as evidenced by the practice of leading companies. One of the most effective methodological tools for strategic planning, the development of a roadmap, can significantly simplify the process of digital transformation of an enterprise.

Changes in the employment structure necessitate a strategic approach to human resource management. The active development of digital technologies, automation and robotization of production processes define new directions for the evolution of the division of labor and transformation of professional activities. This, in turn, creates the basis for forecasting the dynamics of the labor market, employment and the formation of relevant competencies in accordance with the requirements of the digital economy.

Any forecasting or modeling of the future in the context of the digital economy inevitably involves the risk of inaccuracies and false conclusions. The future is multivariate and can develop under different scenarios, which makes it difficult to extrapolate current trends. As society is on the verge of significant qualitative changes, it is impossible to predict what the labor market of the future will look like based on the continuation of existing patterns alone. Therefore, it is important to outline the key limitations that affect the accuracy of forecasting the digital employment space:

Shortened life cycle of professions. In this regard, it is more appropriate to focus not on forecasting specific professions, but on developing a flexible set of skills that will ensure the adaptability of workers to changing labor market conditions and their readiness for further retraining.

Increasing complexity and polarization of society. In today's world, people who are not familiar with even basic technologies coexist with those who actively use advanced digital solutions in their daily lives. This makes it impossible to universally predict the skills required for all categories of the population. Therefore, a sectoral approach is more productive, allowing to analyze the evolution of skills in different sectors, such as industry, services, or the knowledge economy.

Lifelong learning and age-related learning disabilities. The concept of lifelong learning comes into conflict with the natural decline in human cognitive flexibility with age. At the same time, the education system and training remain among the most conservative areas, where curricula often have not been updated for decades, which reduces their relevance to modern labor market requirements.

The economic effect of business digitalization is manifested in various ways:

- digital transformation of technological processes and production organization methods;
- modernization of working tools through their digitization, which improves product quality and labor efficiency.

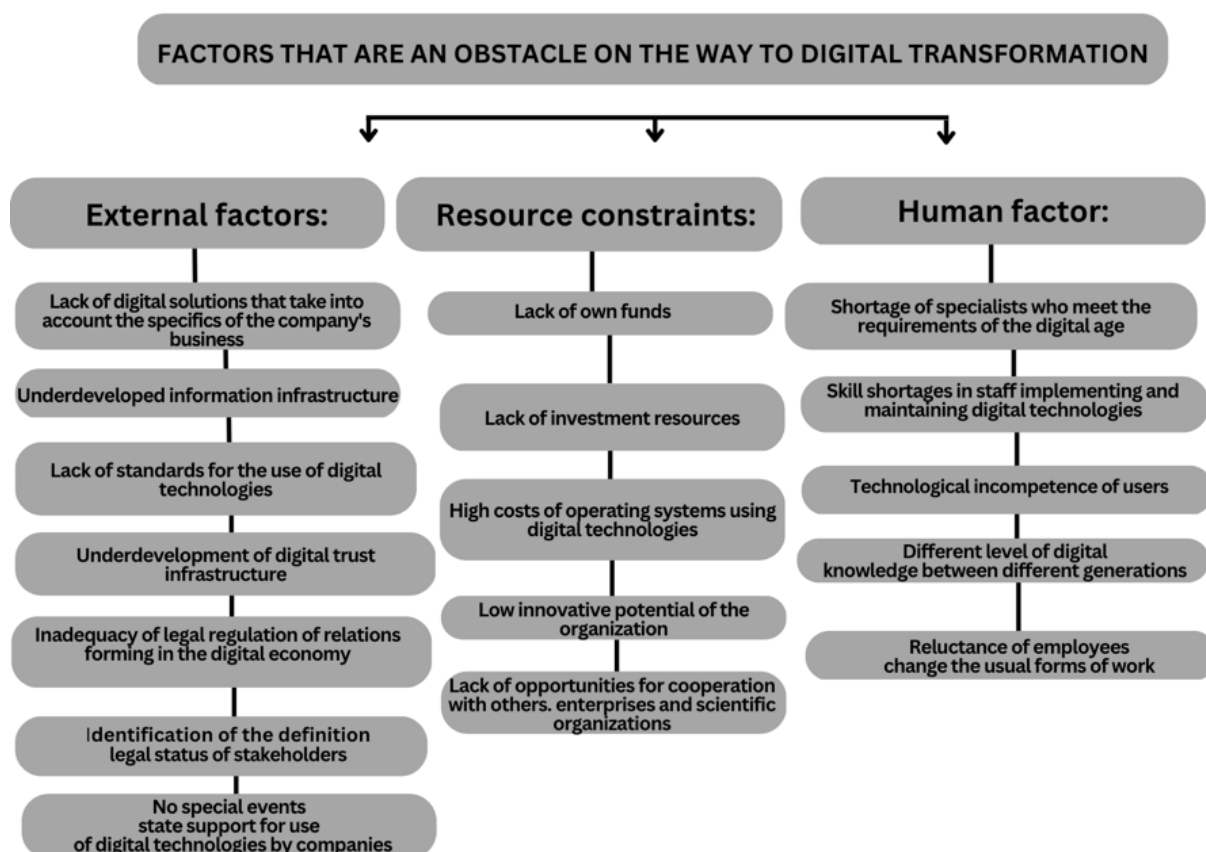
However, in Ukraine, the digitalization process remains limited, especially in the industrial sector, which is showing a slowdown in development. One of the critical problems is technological backwardness, which is not only not being overcome but is being consolidated due to the lack of innovative breakthroughs and the loss of previously achieved positions in industrial production.

If we consider the digitalization of the economy of Ukraine as a functional phenomenon, then it is possible to single out factors that are an obstacle to the process of the digital economy, as well as opportunities and threats to its development. In Ukraine, the population also has fairly wide access to the Internet, which is a good prerequisite for the large-scale implementation of digital technologies. However, the speed of the Internet differs in different settlements of Ukraine, in particular in rural areas and districts. So in Figure 1, you can consider the factors that are an obstacle on the way to digital transformation.

The main challenges for businesses on the way to the digital economy are to eliminate dysfunctions in market mechanisms, overcome institutional and legislative barriers, initiate national-level digital transformation projects, and attract investment in the development of digital infrastructure. Another important aspect is to create demand for digital technologies among citizens and develop digital competencies, which will facilitate active business involvement in the digital economy. Effective incentives and support mechanisms for digital entrepreneurship should be created to ensure the sustainable development of the digital sector.

Accelerated development of the digital economy in Ukraine requires focusing on key sectors, such as:

- transport infrastructure;
- energy sector;
- telecommunication technologies;
- processing of large amounts of data;
- provision of digital public services.



Source: author's development.

**Fig. 1. Factors that are an obstacle on the way to digital transformation**

An integrated approach to digital transformation will create a single digital space that integrates all sectors of the economy and facilitates their effective interaction. All of these areas can be conditionally grouped into two ecosystems: services for consumers and services for producers, the technological foundation of which is a contact core that ensures interaction between digital platforms and traditional sectors of the economy.

In the context of the digital economy of Ukraine, ownership of assets in itself does not guarantee a stable income. The decisive role is played by the presence of economic power, which can be based on market monopoly, administrative resources, financial control, access to political or law

enforcement mechanisms or even shadow structures. It is economic power that becomes a key competitive advantage, providing status rent and creating opportunities for forced redistribution of resources.

In such circumstances, investment in power resources often has a natural advantage over investment in innovation. If the latter require a long payback period, accompanied by significant risks and high investments, then control over the power levers can bring quick and predictable profit. This creates a specific economic environment in which the development of innovations faces administrative and market constraints, which slows down the progress of digital transformation and modernization of the national economy (Karcheva, Ohorodnia and Openko, 2017).

**Conclusions and prospects for further research.** The results of the study indicate that one of the main obstacles to digital transformation is the lack of unified standards for the use of digital technologies. In the course of the work, key areas that will contribute to the accelerated development of the digital economy in Ukraine were identified.

At the present stage, the digital economy is the foundation for the effective development of the national economy, business, public administration and society as a whole. For its further development, it is necessary to create an operational infrastructure that will ensure the interaction of state bodies, business and citizens within the digital ecosystem. Important tasks are also the development of favorable conditions for the digital transformation of production and the active introduction of digital innovations in entrepreneurial activity.

A promising direction for further research is to improve the information support of the enterprise management system, which involves expanding the toolkit of information-oriented management functions. This will create adaptive mechanisms that will respond to constant changes and complications of the external and internal environment of enterprises.

The transition to a digital economy is a strategic factor in ensuring national security and competitiveness of the state in the global economic space. At the same time, the efficiency of enterprise management in digital conditions largely depends on the chosen vector of development. As enterprises are forced to adapt to changes in the external competitive environment, digital transformation becomes not just an opportunity, but an objective necessity.

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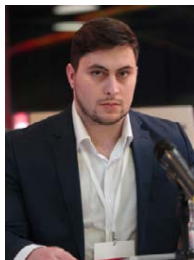
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