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DIGITAL TRANSFORMATION OF BUSINESS IN THE CONTEXT OF UKRAINE DIGITAL COMPETITIVENESS

The article summarizes the issue of digital business transformation in the context of Ukraine digital competitiveness, which is the process of transforming a traditional business using digital technologies and tools. The main purpose of the study is to define basic principles digital transformation, affecting innovative development, efficiency and productivity of business processes, flexibility and adaptability of business to changes in the market and increasing digital competitiveness of Ukraine in the world. The systematization of literary sources and approaches to solving the problem of digital transformation of business and digital competitiveness of Ukraine shows that this process requires constant introduction and improvement of new digital technologies, new business models and new habits. The urgency of solving this scientific problem lies in the fact that the development of digital business transformation depends on the availability of digital technologies, digital literacy and the activity of citizens in the use of the state platform «Action. Business».

Research topic digital transformation of business in the context of digital competitiveness of Ukraine is carried out in the following logical sequence: relevance is determined digital transformation, which is a key factor for increasing digital, international competitiveness of Ukraine and positively affects the development of the digital economy and digital society; the principles, stages of digital transformation and its positive impact on competitiveness of Ukraine according to world ratings.

The methodological tools of the research methods were the last few years of research. The object of research is the processes associated with the digital transformation of business, which affect digital development and digital competitiveness of Ukraine. The article presents the results of the empirical analysis of global ratings and digital transformation of Ukraine. The study empirically confirms and theoretically proves that the digital transformation of business is an important step of the Government regarding the development potential of the digital economy and digital competitiveness of Ukraine. The results of the study can be useful for scientists and practitioners involved in the study of digital transformation and digital competitiveness of Ukraine.

Keywords: *digital transformation, business processes, digital competitiveness, innovation, digital technologies.*

ЦИФРОВА ТРАНСФОРМАЦІЯ БІЗНЕСУ В КОНТЕКСТІ ЦИФРОВОЇ КОНКУРЕНТОСПРОМОЖНОСТІ УКРАЇНИ

У статті узагальнено питання цифрової трансформації бізнесу в контексті цифрової конкурентоспроможності України, що є процесом перетворення традиційного бізнесу з використанням цифрових технологій та інструментів. Основною метою дослідження є визначення основних принципів цифрової трансформації, що впливають на інноваційний розвиток, ефективність та продуктивність бізнес-процесів, гнучкість та адаптивність бізнесу до змін на ринку та підвищення цифрової конкурентоспроможності України у світі. Систематизація літературних джерел та підходів до вирішення проблеми цифрової трансформації бізнесу та цифрової конкурентоспроможності України свідчить про те, що даний процес вимагає постійного впровадження і вдосконалення нових цифрових технологій, нових бізнес-моделей та нових звичок. Актуальність вирішення даної наукової проблеми полягає в тому, що розвиток цифрової трансформації бізнесу залежить від доступності до цифрових технологій, цифрової грамотності та активності громадян використання державної платформи «Дія. Бізнес». Дослідження теми цифрової трансформації бізнесу в контексті цифрової конкурентоспроможності України здійснюється в такій логічній послідовності: визначено актуальність цифрової трансформації, що є ключовим фактором для підвищення цифрової, міжнародної конкурентоспроможності України і позитивно впливає на

розвиток цифрової економіки та цифрового суспільства; досліджено принципи, етапи цифрової трансформації та її позитивний вплив на конкурентоспроможність України згідно світових рейтингів.

Методологічним інструментарієм методів дослідження були кілька останніх років досліджень. Об'єктом дослідження є процеси, які пов'язані з цифровою трансформацією бізнесу, що впливають на цифровий розвиток та цифрову конкурентоспроможність України. У статті представлені результати емпіричного аналізу глобальних рейтингів цифрової трансформації України. Дослідження емпірично підтверджує та теоретично доводить, що цифрова трансформація бізнесу є важливим кроком Уряду щодо потенціалу розвитку цифрової економіки та цифрової конкурентоспроможності України. Результати дослідження можуть бути корисними для науковців та практиків, що займаються дослідженням цифрової трансформації та цифрової конкурентоспроможності України.

Ключові слова: цифрова трансформація, бізнес-процеси, цифрова конкурентоспроможність, інновація, цифрові технології.

Problem setting and its relationship with important scientific and practical tasks.

Digital transformation is an integral part of our modern life, where digital technologies are rapidly developing and affect culture, economy, social relations, all spheres of life – from communications and entertainment, to business and science, and allow us to perform tasks faster, more efficiently, and also increase the level of availability and quality of services. Digital transformation is new opportunities for innovative development, entrepreneurship, new forms of communication and interaction. However, we also face new challenges regarding cyber security, personal data, rethinking business models and social standards.

The pandemic in 2020 and martial law from February 2022 has become a unique driver of digital transformations. Most of the enterprises that resisted the digitization of business at the beginning of 2020 saw the inevitability of the situation, which allowed most business entities to quickly adapt, understanding all the advantages of digital technologies, and gradually cover the market, displacing competitors. At the same time, it is necessary to understand that technology is only a «mosaic» that is folded into an innovative canvas, and only a person is the main element of its connection, which interacts with new equipment, programs and clients.

Recent research and publications analysis. A number of scientific works of domestic scientists and specialists in this field are devoted to the study of issues related to the digital transformation of business and digital competitiveness of Ukraine: Verkhovodov A. (*Verkhovodov, 2018*), Ivakhnenko O. M. (*Ivakhnenko, 2021*), Oleshko T. I. (*Oleshko, 2022*), Dergacheva G.M., Koleshnia Ya.O. (*Dergacheva, Koleshnia, 2020*) and others. However, it should be noted that in modern conditions the topic is relevant and requires further research and analysis.

The purpose of the article. The purpose of the article is to study the digital transformation of business in the context of digital competitiveness of Ukraine.

The main results and their rationale. Digital transformation changes the traditional way of doing business, namely the way of doing business, business processes, models and corporate culture. Digital transformation «can be imagined as changes caused by three interrelated forces: new technologies, new business models, new habits» (*Verkhovodov, 2018*), which is caused by the creation of new businesses faster and cheaper, the rapid spread of new technologies, the effective use of data for decision-making in business management, as well as flexibility, where according to new techniques in work, more attention is paid to user needs, and not to products.

«Digital transformation of business is widespread in the global economic space. In particular, according to the results of a study by the company «Enterprise Strategy Group» as part of the project «Maturity cycle of IT transformations», among thousands of enterprises in the USA, Great Britain, Germany, China, Japan and other countries of the world, 12% of enterprises use outdated technologies and do not meet IT requirements. At the same time, 83% of respondents are either actively developing, implementing new digital technologies, or are their supporters and actively apply innovations, and only 5% of enterprises are recognized as

fully transformed. It is also stated that 71% of respondents confirm the importance of digital technologies for the further development of the enterprise and increasing its competitiveness. It is interesting that 96% of those who underwent transformative transformations already doubled their incomes compared to the planned ones the following year» (Ivakhnenko, 2021).

The main principles of digital transformation include:

- centralized data storage (all data must be available from one central location, which will allow for faster and more efficient work with them);
- automation of processes (allows to reduce manual labor costs and increase productivity);
- Technology convergence (different technologies must combine and work together to ensure more efficient and productive work);
- updating technologies (technology is developing rapidly, therefore, for a successful digital transformation, it is necessary to update technical equipment and software);
- The use of analytics and artificial intelligence (allows collecting and analyzing data for a more thorough decision and improving business efficiency);
- Innovation (search for new ideas, products, changes);
- focus on customer satisfaction.

The purpose of transformational transformations in business is to increase the efficiency of business processes, reduce costs and risks, increase profitability and improve interaction with customers. Achieving the goal of digital transformation includes:

- the introduction of digital technologies (artificial intelligence, the Internet of Things, data analytics, cloud technologies) will help improve and automate business processes, which will ensure greater efficiency and reduce the risk of errors;
- Data availability and analysis will ensure quick and high-quality collection, storage, and processing of data, which will facilitate management decision-making;
- optimizing the use of resources, which will reduce costs and ensure greater efficiency;
- Innovations that will help in the development of new services and products and provide a competitive advantage in the market;
- improving interaction with customers through the use of electronic communication channels, social media and interactive applications.

All of these transformative transformations will help businesses achieve greater efficiency in their operations and lead to increased competitiveness and revenues. Digital transformation in the West has gone through a certain path, consisting of certain and similar stages, but each created business went through it differently.

Stages of digital transformation



Digital transformation covers a wide range of processes and there is no universal algorithm for conducting digital transformation, just as each business entity has its own approaches to the accumulation of information, the use of technologies and the relevant skills

and potential of employees. As for general recommendations, they exist and can be included in the digital transformation process and used by any business.

First of all, it is necessary to form a transformation team, which usually consists of a manager, HR. director, head of IT (technical director), and representative of top management, who should analyze business processes and identify needs for their improvement with the help of digital technologies, reaching a single goal – business transformation to increase the efficiency of the enterprise. The next step is to:

- develop a strategy for the development of digital transformation, determining the goal, scope and implementation schedule;
- choose digital technologies and tools that best meet the needs and their implementation at the enterprise;
- To provide technical and educational support to staff regarding their readiness to effectively use new digital technologies in their work;
- Implementation and testing of digital solutions on several small projects in order to study their effectiveness and avoid possible errors;
- Implementation and scaling of digital solutions to other business processes;
- evaluating the effectiveness of digital solutions in order to identify possible improvements.

As you can see, the digital transformation of a business is not just the introduction of new technologies, but also a change in corporate culture, processes, strategies and openness of management to innovative business development in order to remain competitive.

In order to develop, understand the best practices of digital transformation and determine the global rankings of digital transformation, the Global Competitiveness Center of IMD has developed ways to assess the potential for the development of the digital economy (the digital economy is «the activity of creating, distributing and using digital technologies and related products and services» (*Oleshko, 2022*) and the effectiveness of digital transformation.

In 2021, Ukraine took 54th place in the world ranking of digital competitiveness, where digital technologies were evaluated (according to 54 criteria, which were divided into three groups: knowledge – intangible infrastructure indicators that characterize the process of digital transformation through innovation, understanding and learning new technologies; technologies – indicators that assess the general development and implementation of digital technologies (availability of capital for investing in technological infrastructure, technological regulation); future readiness – indicators that assess the level of adoption of technologies by the government, business and society as a whole) of the economies of 64 countries (Fig. 1).

As you can see, according to the rating, Ukraine in 2021 rose by four positions compared to 2020, and in 2020 by two positions compared to 2019, which indicates successful steps in digital development, but the 54th place among 64 countries leaves Ukraine in the top ten outsiders. According to the report, Ukraine showed an improvement of only one step in knowledge and technology, and three positions in future readiness, which shows the level of the economy in terms of readiness for digital transformation (the use of digital technologies by the government, business, and society). This shows that there is a great need to increase the use of digital technologies in all spheres of the economy in Ukraine. And for this, Ukrainians need to actively make online payments and purchases and participate in all processes related to the development of digital technologies (in business, education, medicine, etc.), which will allow the growth of the level of digital development and competitiveness of the state and will contribute to improving the quality of life of the population of Ukraine.

The strong positions of Ukraine are: a quick opportunity to start a business (the online platform «Action. Business» was initiated by the Ministry of Digital Transformation of Ukraine in February 2020 (to support and develop entrepreneurship, where you can register your company, open a bank account, get financial support and information about legal and financial aspects of running a business, order the services of business consultants and use tools for

business management, which will allow an entrepreneur to use his time and resources more effectively for successful running of a business), e-democracy, and e-government, quality of education, fast Internet connection, and use of big data (*Action. Business, 2020*).

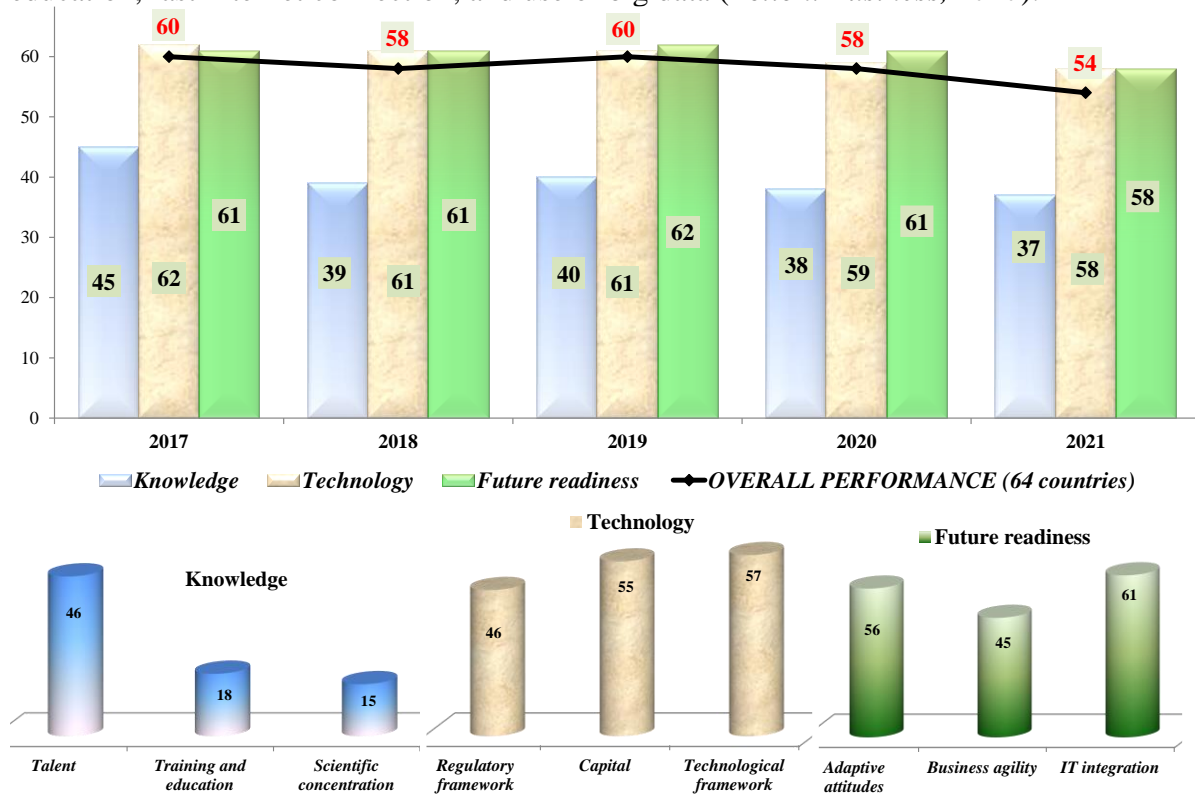


Fig. 1. Digital competitiveness of Ukraine*
 *Source: built by the author from the materials
 (IMD WORLD Digital Competitiveness Ranking, 2021)

The rapid ability to start a business is a strong position thanks to the Government, which promotes the development of business-friendly conditions that reduce bureaucratic obstacles (simplification of procedures for setting up and registering companies), encouraging investment and creating business incubators and innovation parks. As well as the action of state programs aimed at developing the digital economy and improving the competence of entrepreneurs.

Weak positions are: protection of intellectual property rights, investment risks and cyber security. Therefore, in order to increase trust in digital services, protect the confidentiality, integrity and availability of digital data, it is necessary to improve the legislation on the cyber protection of digital business assets. Also, in order to increase Ukraine's rating in the digital competitiveness of the world, it is necessary to: create a favorable environment for the development of digital technologies and infrastructure, including the creation of special legislative acts, to promote innovative startups, entrepreneurship and the attraction of foreign investments; ensure digital literacy, which should be a priority in terms of the development of the digital economy and the formation of a competitive society; providing financial support to scientific research and innovative projects in the field of digital technologies for the development of innovative products.

The mentioned measures will help Ukraine to increase its rating in digital competitiveness, attract investments, create new jobs and promote the development of the digital economy.

Conclusions, discussions and recommendations. Digital transformation of business is a key factor for increasing digital competitiveness of Ukraine. It covers the implementation of

digital technologies, processes and models in the business environment to improve productivity, efficiency and innovation. The key aspects of the digital transformation of business in the context of digital competitiveness of Ukraine are: the introduction of advanced digital technologies, such as artificial intelligence, data analytics, the Internet of Things, block chain and robotics, which will allow enterprises to create new digital products and services, automate processes and optimize business operations; development of e-commerce – allows Ukrainian companies to enter international markets and attract customers from all over the world; the use of digital marketing tools such as social media, content marketing and personalization helps promote products and services more effectively and attract new customers; the collection and analysis of large volumes of data (Big Data) provides companies with the opportunity to obtain valuable insights about markets, consumers and competitors, and the use of intelligent data analysis tools helps to make better management decisions, predict trends and adapt to changes.

In general, the digital transformation of business can provide Ukraine with competitive advantages in the market, accelerate economic development and promote the attraction of foreign investments. However, adequate government support, infrastructure development and appropriate legal frameworks for the digital sphere are needed to achieve success.

Author contributions

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