## DOI https://doi.org/10.30525/2592-8813-2024-spec-7

## THE IMPACT OF DIGITIZATION TOOLS ON THE INTELLECTUAL DEVELOPMENT OF THE COUNTRY'S POPULATION

Halyna Kryshtal,

Doctor of Economic Science, Professor, Head of the Department of Finance, Banking and Insurance, Interregional Academy of Personnel Management, Ukraine gkrvshtal@ukr.net

**Abstract.** This article extensively explores the utilization of digitization tools. The primary focus is on the experimental investigation of respondents who use digitization tools and the impact of the population's skills on their continued use of digital tools. Additionally, the article emphasizes the importance of finding effective models, mechanisms, and tools for the intellectual support of innovative development among users.

Key words: digitization, digitization tools, intellectual development.

**Introduction.** The global turbulence that has swept the world has compelled businesses in Ukraine and other countries not only to adapt to new realities but also to expedite their journey into the digital space. Challenges such as the COVID-19 pandemic, financial instability, and military aggression have served as a stimulus, prompting companies to explore new opportunities in the online environment and initiating the process of digital transformation. The shift to e-commerce and electronic services proved to be a key element in adapting to these new conditions. States and companies actively invested in digital marketing, implementing innovative strategies to engage and retain customers' attention.

Let's highlight key aspects underscoring the importance of digital transformation for the economic landscape: online sales channels and e-commerce, digital marketing, automation and cloud services, resilience to change, and innovation creation. Digital transformation has become not only a response to the challenges of global upheavals but also a strategic direction for enterprises, contributing to sustainable economic development and adaptation to changes in the modern world.

The subject of deeper examination is the tools of digitization, which determine the success of the digital transformation of enterprises and the economy as a whole. It is important to note that digital transformation is not just the adoption of technologies but also the creation of a corresponding cultural environment within each business. This becomes a key factor in ensuring the resilience, efficiency, and profitability of enterprises, which, in turn, defines the economic situation in the country as a whole.

**Basic theoretical and practical provision.** Digital transformation strategies formulated by national governments indeed appear as a key tool in implementing effective digitization policies. These strategies become popular as they define general directions for society as a whole. However, it is important to note that they often remain general and do not provide specific measures to support digital transformation for small and medium-sized enterprises.

It is crucial to strengthen research and identify specific measures to support digital transformation. This may involve creating tools aimed at reducing barriers for small businesses to use digital technologies, as well as providing financial incentives for their implementation [1, 2, 3]. This technological development encompasses countless technologies at various stages of maturity.

Digitalization is a key trend at various levels, such as activity, organizational processes, and ecosystem levels, impacting industries and going beyond traditional frameworks. At each of these levels, digital transformation creates new opportunities to enhance productivity, efficiency, and logistics resilience [4]. Investments in technology and collaboration play a crucial role in facilitating information exchange and improving coordination and cooperation. However, in a highly competitive environment, this can also pose a challenge, sometimes perceived as a stumbling block [5].

Alongside new opportunities, significant economic questions and issues arise. Coordination and collaboration aspects become key focal points. By analyzing from the perspective of game theory, conceptual foundations can be developed to allocate benefits and costs, considering organizational perspectives [5].

The contemporary "digital turn" begins with the concept of an information society, challenging the notion of "big data" in the current stage of knowledge-based economic development. This raises doubts about the attributed advantages of "big data" in the modern economic landscape. In the next stage, authors analyze the current wave of digitalization in the context of long waves of economic evolution and changes in techno-economic paradigms. This indicates that digital transformation is an integral part of broader economic processes and structural changes that contemporary society undergoes [6].

**Evaluation of research results.** During the experiment, respondents from Georgia, Azerbaijan, Armenia, Moldova, Ukraine, and European Union countries, including Latvia, Lithuania, Poland, Slovenia, Slovakia, Estonia, Czech Republic, and Hungary, participated. The overall analysis indicates that the level of digital technology skills in Ukraine is significantly lower than in European Union countries.

No more than 25% of the population in Azerbaijan and Georgia demonstrated at least "standard" digital skills, which is approximately half the level of more developed countries. Ukraine also faces challenges in this regard, where 53% of the population has digital skills below the basic level, and 15% do not possess any digital skills at all.

About 34% of the population in Armenia lacks even basic digital skills. These data indicate the need for active measures to improve digital literacy and develop technology usage skills in these countries.

Let's conduct a study on the age group that uses digital services in Ukraine. Table 1 presents the survey results.

Table 1

Use of Digital Technologies by the Population of Ukraine			
Variable	Frequency	Use digital services	Percentage (%)
Gender			
Female	500	423	84,6
Male	500	308	61,6
	Age Bi	racket	
17–35 years	250	250	100
36–49 years	250	243	97,2
50 - 59 years	250	175	70,0
60 + years	250	63	25,2

Use of Digital Technologies by the Population of Ukraine

Source: Author's own development

During the research, it was found that individuals aged 50+ face difficulties in using the digital capabilities of the market, and those belonging to the age group 60+ practically lack the skills to use digital products provided by the state. The main reason for this is the lack of sufficient digital literacy. These individuals may find it challenging to use modern gadgets, have limited financial means to use advanced technologies, and are unable to utilize government programs, such as Diia, which provide convenient access to all documents through one tool.

This issue is particularly relevant for the target audience aged 16 to 70, which was studied through a survey of 1000 respondents. To improve the situation, it is necessary to develop and implement educational programs on digital literacy and ensure the accessibility of modern technologies for all layers of the population.

The obtained results indicate significant differences in the methods of assessing the digital skills of the population among the studied countries. The assessment is most often carried out based on quantitative indicators of the use of digital technologies in education and internet services, while less attention is paid to indicators such as the integration of digital technologies. In this context, it is revealed that Ukraine and Georgia include more than 50% of basic indicators, while Armenia and Moldova record less than 30%. It is important to note that most measurement methodologies do not comply with European Union standards.

The use of digital tools and methods opens up wide opportunities for companies to improve processes in all aspects of their activities. An essential aspect of digital transformation is attracting new customers. The application of digital marketing strategies, customer data analysis, and service personalization enable companies to attract and retain their target audience. Improving relationships with suppliers becomes possible through the implementation of digital platforms for supply chain management and process automation.

Moreover, digital technologies contribute to the creation of flexible business models, reducing capital expenditures through the use of cloud computing and task automation with artificial intelligence. This opens up new perspectives for companies, allowing them to be more adaptive and competitive in the market.

**Conclusion.** Examining the impact of digitization tools on the intellectual development of the economy, researchers initially focused on the concept of digital instruments in a relatively narrow context, limiting it to communication tools such as telephone communication and SMS messaging. However, given the rapid technological advancements, it is crucial to consider not only communication but also other aspects of digital innovations, such as fast and reliable next-generation networks like 5G.

The results of the experimental study of respondents revealed age groups in the population that utilize digitization tools and the influence of the population's skills on their continued use of digital tools. The importance of finding effective models, mechanisms, and tools for intellectual support of innovative development in users was emphasized. The conclusion of the study supports the hypothesis of a potential impact of digitization tools on the intellectual development of the economy, with a focus on its intellectual aspects.

## **References:**

- 1. Andrew J. Rohm, Matthew Stefl, Julian Saint Clair. (2018). Time for a Marketing Curriculum Overhaul: Developing a Digital-First Approach.
- 2. Mrs. Reshma Desai, Mr. Arvind Chauhan, Mr. Darshan Kudtarkar., (2019). Digital Marketing New Age Consumer Behavior (Mumbai Region). 6. Issue 1. pp. 38–43.
- Legner, C., Eymann, T., Hess, T., Matt, C., Böhmann, T., Drews, P., Mädche, A., Urbach, N., Ahlemann, F. (2017). Digitalization: opportunity and challenge for the business and information systems engineering community. Business & information systems engineering. 59. 4. pp. 301–308.
- 4. Kane, G.C., Palmer, D., Phillips, A.N., Kiron, D., Buckley, N. (2015). Strategy, not technology, drives digital transformation. MIT Sloan Management Review & Deloitte University Press. 14. pp. 1–25.
- 5. Heilig, L., Lalla-Ruiz, E., Voß, S. (2017). Digital transformation in maritime ports: analysis and a game theoretic framework. NETNOMICS: Economic Research & Electronic Networking. 18. pp. 2–3.
- 6. Valenduc, G., Vendramin, P. (2017). Digitalisation, between disruption and evolution. European Review of Labour and Research. 23. 2. pp. 121–134.