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## THE ROLE OF HUMAN CAPITAL AND DIGITAL LITERACY IN SUCCESSFUL DIGITAL TRANSFORMATION

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**Abstract.** The article examines the key role of human capital, in particular its digital component – digital literacy, in the context of successful digital transformation of the economy and public administration. It is substantiated that digital literacy is not only a basic competence for effective participation in the digital economy, but also a determining factor in the competitiveness of both individuals and national economies. The article analyses the impact of digital literacy on economic activity, access to public services, social integration and personal development. Particular attention is paid to the problem of digital inequality and the need to develop comprehensive strategies to overcome it at the level of the state, business and civil society. The author examines the interconnection of human capital and digital literacy as integral components of successful digital transformation, as well as their importance for attracting foreign investment and developing small and medium-sized enterprises in Ukraine. Based on the analysis, the article formulates recommendations for the state, business and citizens to improve the level of digital literacy and human capital development in the context of digital transformation.

**Keywords:** human capital, digital literacy, digital transformation, digital economy, labour market, digital inequality, education, training, small and medium-sized enterprises, foreign investment.

In today's world, digital transformation is a defining trend that covers all spheres of social life, from the economy to public administration. The key role in this process is played by human capital, which in the context of the digital economy is a

set of knowledge, skills, competencies, creativity, personal qualities and health of individuals that have economic value and contribute to the creation, dissemination and use of digital technologies, as well as adaptation to the changes caused by them. An integral part of human capital in the digital age is digital literacy, which is defined as the ability of an individual to use digital technologies effectively and safely to perform various tasks in professional, educational, social and personal spheres.

In the context of the rapid development of information and communication technologies and the emergence of the digital economy, human capital is gaining particular importance as a key factor in socio-economic development. According to the human capital theory [2; 10, p. 15], investments in knowledge, skills and competences of individuals are crucial for increasing labour productivity and economic growth. In the digital era, one of the most important components of human capital is digital literacy, which, according to UNESCO, covers the ability of individuals to use digital technologies to search, evaluate, create and share information, as well as to communicate and participate in the digital society. Thus, digital literacy is not only an instrumental skill, but also a fundamental component of the nation's intellectual potential, which directly affects the efficiency of digital transformation processes.

The relevance of studying the role of human capital and digital literacy in a successful digital transformation is due to the rapid development of digital technologies and their growing impact on all aspects of society. Effective implementation of digital innovations and achievement of sustainable development in the digital economy directly depend on the availability of highly skilled professionals and the overall level of digital competence of the population. Insufficient development of human capital and low levels of digital literacy can become significant obstacles to digital transformation, deepen social inequality and reduce the competitiveness of the national economy. In this regard, identifying key challenges and potential opportunities related to human capital development and digital literacy is crucial for developing effective digital transformation strategies at the national and global levels. The purpose of this article is to substantiate the critical need for

investment in human capital and comprehensive development of digital literacy as crucial conditions for the effective implementation of digital transformation.

The scientific justification for the key role of human capital in the global digital transformation of the economy and public administration is based on theories of management, knowledge economy, sociology, and information technology. Human capital is a generator of innovation and adaptation, an internal driver of long-term economic development, especially in the context of the rapid development of digital technologies. People are the source of new ideas, technological solutions, and progressive business models, and their ability to learn and retrain determines the efficiency of adopting and using new technologies. Despite the advancement of artificial intelligence, human intelligence remains the fundamental basis for creativity, critical analysis, empathy and decision-making in the face of uncertainty, providing synergy with digital technologies. Human capital is also the driving force behind the implementation and scaling of digital initiatives, requiring effective change management and the availability of skilled professionals to set up and maintain digital systems. Effective interaction with digital systems directly depends on the level of digital literacy of the population and civil servants, a low level of which can become an obstacle to digital transformation and deepen social inequality.

Digital literacy, as a key element of human capital, is a basic competence for effective participation in the digital economy and public administration. It covers a wide range of skills, from basic use of digital devices to in-depth knowledge of digital technologies. A high level of digital literacy promotes economic activity through online employment and e-commerce, provides access to public services online, facilitates social inclusion through communication and access to information, and promotes personal development and learning. However, there is a problem of digital inequality caused not only by lack of access to infrastructure, but also by insufficient knowledge and skills, as well as socio-economic factors. Bridging the digital divide requires comprehensive efforts by the government, business and civil society organisations.

In the context of Ukraine's European integration aspirations and future post-

war reconstruction, the level of human capital development, including its digital component, will be crucial for attracting foreign investment and establishing effective international cooperation. Investors and international partners are increasingly paying attention to the quality of the recipient country's labour force, its ability to work with modern technologies, adapt to international standards, and participate in global value chains [4, p. 177]. The high level of digital literacy of the population and the availability of qualified IT specialists, managers, and engineers with knowledge of digital tools will become Ukraine's key competitive advantages in the international arena. Countries with developed human capital in the field of digital technologies are more attractive to technology companies, research centers, and international projects, which facilitates the inflow of investment, knowledge and technology exchange, and the strengthening of international economic ties [5]. Thus, systemic investment in the development of digital literacy and human capital is not only an internal need for digital transformation, but also a strategic tool for Ukraine's integration into the global economy and attracting the necessary resources for its recovery and further development.

In the context of the digital economy, human capital is a key factor in competitiveness. Countries and companies with developed human capital have significant advantages in creating and implementing advanced technologies, attracting investment, and ensuring sustainable economic growth, as demonstrated by the experience of South Korea. Digital technologies are transforming skills requirements, increasing the demand for both soft skills (critical thinking, creativity, communication, collaboration, emotional intelligence), especially in the context of automation, as evidenced by the example of GitLab, and hard skills related to digital technologies. The formation of human capital for the digital economy is inextricably linked to the modernisation of educational programmes at all levels, the development of STEM education and lifelong learning, which is being actively implemented in Ukrainian universities and IT companies such as SoftServe and EPAM. Digital transformation is also affecting the labour market by creating new professions and transforming existing ones, but it also carries risks of growing inequality due to

different levels of digital literacy, which requires the development of strategies to adapt the workforce.

In order to ensure successful digital transformation at the national level, it is necessary to consolidate the efforts of the state, business and citizens. The state has a key role to play in developing and implementing national digital literacy programmes adapted to the needs of different age and social groups. It is also important to modernise the education system at all levels, with a focus on developing both technical (hard skills) and socio-emotional (soft skills) skills that are critical in the digital economy. Promoting continuous education and retraining of employees will help ensure the flexibility of the workforce in the face of rapid technological change. In addition, the state should guarantee equal access to digital infrastructure and educational resources for all citizens, thus levelling the digital divide.

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Given that small and medium-sized businesses play a critical role in the recovery and further growth of Ukraine's economy, contributing a significant portion of GDP and creating the bulk of jobs, digital transformation offers unprecedented opportunities for Ukrainian SMEs to expand their markets, optimise business processes, reduce costs, and increase competitiveness [9]. However, the realisation of this potential directly depends on the level of digital literacy of SME owners and employees. Having the skills to use online sales platforms, digital marketing, electronic document management, cloud services and other digital tools is becoming a prerequisite for the survival and successful development of SMEs in the digital

economy. Improving digital literacy in this sector will help increase the productivity, innovation, and sustainability of SMEs, as well as their integration into national and international digital ecosystems [1]. Government support for digital literacy programmes for SMEs, the creation of a favourable digital environment, and the promotion of digital technologies in this sector will have a significant multiplier effect on the recovery and long-term development of Ukraine's economy.

In summary, human capital and, in particular, digital literacy play a key role in successful digital transformation. Human capital is not only a driving force for innovation and adaptation, but also the intellectual basis for the effective use of digital technologies. Digital literacy, as an integral part of human capital, is a basic competence for participation in the digital economy and public administration, affecting economic activity, access to public services, social inclusion and personal development. However, there is a problem of digital inequality, which requires joint efforts of the state, business, and civil society organisations to overcome. Investing in human capital and increasing digital literacy are critical prerequisites for a successful, sustainable, and socially-oriented digital transformation.

Further research could be aimed at identifying specific mechanisms and tools for effective human capital development and digital literacy in the context of Ukraine's digital transformation. It is also important to study the impact of various educational programmes and government initiatives on the level of digital literacy of different population groups, as well as to analyse the effectiveness of human capital investments to achieve the goals of digital transformation.

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