

DOI <https://doi.org/10.30525/978-9934-26-597-6-54>

THE ROLE OF DIGITAL TECHNOLOGIES IN THE INNOVATIVE DEVELOPMENT OF THE UKRAINIAN ECONOMY

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Abstract

Modern world economic development is based on the constant implementation of innovative solutions, which allows increasing the competitiveness of national economies and creating new opportunities for growth. In the context of globalization and scientific and technological progress, innovation policy plays a key role in ensuring sustainable economic development of each country, including Ukraine. The lack of a clear strategy for the development of innovation policy can slow down economic progress, which will negatively affect the country's competitiveness at the international level. In view of this, research into ways to improve Ukraine's innovation policy is important for ensuring the dynamic development of the national economy.

Keywords: Innovation, Innovation Policy, Innovative Development, Digital Technologies

1 Introduction

The role of digital technologies in the innovative development of the Ukrainian economy is key and multifaceted.

1. Digitalization as a driver of economic transformation Digital technologies act as a catalyst for the modernization of the Ukrainian economy. They contribute to the transition from a raw material model to an innovative, knowledge-based economy focused on high added value. This is especially relevant for strengthening economic resilience in the face of global challenges and war.

2. Increasing productivity and efficiency The integration of digital solutions (ERP systems, Big Data, cloud services, production automation) allows businesses to optimize production processes, reduce costs and improve product quality. This creates conditions for the competitiveness of Ukrainian enterprises in both domestic and foreign markets.

3. Development of e-government and open data Thanks to platforms such as Diya, Ukraine demonstrates high rates of e-government implementation.

This not only increases the transparency of public administration, but also helps attract investment, reduce corruption, and improve the business climate.

4. Support for entrepreneurship and startups Digital technologies create new opportunities for the development of small and medium-sized businesses, especially in the IT sector. Ukrainian startups are increasingly entering the international market, and the innovation ecosystem (incubators, accelerators, grant programs) is actively developing. 5. Education and training of digital personnel The demand for specialists in the fields of IT, cybersecurity, data analytics, etc. is growing. The development of digital competencies among young people and workers in various industries is the basis for the formation of an innovative economy. 6. Digital infrastructure and inclusion The development of broadband Internet, 4G/5G mobile communications, and the availability of digital services even in remote regions ensures more equal access for citizens and businesses to modern technologies, knowledge, and opportunities. 7. Integration into the global digital market Digital tools contribute to the international integration of Ukrainian companies, allow them to export IT services, and also participate in global digital initiatives. Ukraine is already one of the leaders in Europe in terms of IT export volumes.

Overview

Digital technologies have become the driving force of transformations in the global economy, and Ukraine is no exception. In the context of war, globalization challenges, and post-pandemic recovery, it is digitalization that determines Ukraine's potential to build an innovative, competitive, and sustainable economy. Key indicators of the impact of digitalization on the innovative development of the Ukrainian economy can be outlined.

1. Digitalization as a factor in the structural restructuring of the economy. Digital technologies contribute to the transition from the raw material model of development and the transition to a knowledge economy focused on innovation, creativity, information, and intellectual capital. Such restructuring allows the formation of new sectors of the economy – digital services, e-commerce, smart technologies, Industry 4.0. The development of the IT industry, which already accounts for more than 5% of Ukraine's GDP, is an example of a sector that emerged and is developing thanks to digital technologies.

2. Business efficiency and productivity through digital tools. Integration of digital solutions (ERP, CRM, IoT, Big Data, AI, cloud computing) into the real sector of the economy: increases labor productivity; reduces costs; improves the quality of management decisions; creates conditions for business

scaling. Using data analytics in the agricultural sector allows you to increase yields, reduce fertilizer and fuel costs.

3. Digital transformation of public administration. The introduction of digital governance (in particular, the Diya platform) forms an open, transparent, customer-oriented model of interaction between the state and citizens and business: reducing the level of corruption; accelerating the administration of services; simplifying business activities; facilitating interaction with tax, customs, and regulatory authorities. Ukraine is recognized as one of the world leaders in the implementation of e-government among developing countries. 4. The role of digital technologies in the development of small and medium-sized businesses (SMEs). Digital tools significantly reduce barriers to market entry: access to international e-commerce platforms; use of online marketing and digital promotion channels; automation of accounting, personnel, and warehouse accounting. The creation of digital marketplaces and freelance platforms opens up opportunities for self-employment, even under martial law.

5. Increasing innovation capacity through a startup ecosystem. Digital transformation contributes to the formation of a powerful ecosystem for the development of startups: IT clusters (Lviv, Kharkiv, Kyiv, Dnipro); business incubators and accelerators; grant programs from international donors; support from government initiatives (Startup Fund, Diia.Business). Ukrainian startups such as GitLab, Grammarly, Ajax Systems are already globally recognized, and this underlines the potential of the country's digital economy.

6. Development of digital education and digital skills. Education plays a central role in shaping the digital culture of society: online courses and platforms (Prometheus, Coursera, EdEra); integration of digital tools into formal and informal education; development of STEM education; training of specialists in IT, cybersecurity, data science, UI/UX, etc. Formation of human resources for the digital transformation of the state and business. 7. Integration into the global digital economy. Digital technologies open up new channels for international trade, participation in global projects and digital alliances: export of IT services; participation in the Erasmus+, Horizon Europe programs; digital diplomacy and cyber cooperation; supporting digital initiatives within the framework of the Association Agreement with the EU.

8. Security, resilience and digital sovereignty. In wartime, digital security plays a critical role: protection of state databases; uninterrupted operation of digital services; combating cyber threats; development of national cyber infrastructure. Diia.Resistance, Cyber Unit Technologies, IT Army – examples of effective use of digital technologies in the security sector.

Conclusion

Digital technologies are the foundation of innovative development of the Ukrainian economy. They form a new economic reality, where speed, flexibility and knowledge become the main assets. Further digital transformation can ensure sustainable development, high growth rates and integration of Ukraine into the global economy.

Digital technologies are the basis for innovative development of the Ukrainian economy, creating conditions for: formation of new economic models; modernization of existing industries; increasing management efficiency; integration into the global economy; strengthening national security. In the context of post-war recovery, digital transformation will be one of the key tools for rapid economic growth, as well as a lever for building a sustainable, socially responsible, and innovative state.

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