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## INNOVATIVE DEVELOPMENT AS A KEY FACTOR IN THE MODERNIZATION OF PUBLIC ADMINISTRATION

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*The article examines innovative development as a key factor in the modernization of public administration in the context of digital transformation. It is proved that digitalization is a driving force for the transformation of social, economic and administrative relations, contributing to the increase of efficiency, transparency and flexibility of management processes. It is noted that the intensification of the introduction of digital technologies into all aspects of public life is a defining feature of the Fourth Industrial Revolution ("Industry 4.0"), which is characterized by the universalization of information and communication technologies, automation of production processes and digital regulation of socio-economic, and administrative and management systems. The main tasks of digitalization of public administration in Ukraine are analyzed, including the development of integrated digital platforms, the development of a biometric identification system, the introduction of "big data" technologies for monitoring and evaluating efficiency, ensuring openness and accessibility of public institutions through electronic reception offices and multifunctional portals, as well as improving the regulatory and legal framework. Particular attention is paid to the web portal and mobile application "Diia" as an example of successful digital transformation. The strategic directions of modernization of public administration in the context of Industry 4.0 are identified: minimization of management mistakes, reduction of subjective influence in decision-making, limitation of corruption risks, improvement of reporting and forecasting on key socio-economic indicators. It is noted that the implementation of these tasks will contribute to the formation of a single digital space that unites all levels of government, ensure prompt response to the requests of citizens and businesses, improve the quality of management and efficiency of public administration. Therefore, innovative development is seen as a fundamental component of the modernization of public administration aimed at ensuring the competitiveness of the state, sustainable development of the national economy and integration into the global digital economy.*

**Key words:** digitalization, public administration, state administration, digital platforms.

### **Дворніченко А. С. Інноваційний розвиток як ключовий чинник модернізації державного управління**

*У статті розглянуто інноваційний розвиток як ключовий чинник модернізації державного управління в умовах цифрової трансформації. Доведено, що цифровізація є рушійною силою трансформації суспільних, економічних та управлінських відносин, сприяючи підвищенню ефективності, прозорості та гнучкості управлінських процесів. Відзначено, що інтенсифікація впровадження цифрових технологій у всі аспекти суспільного життя є визначальною рисою четвертої промислової революції («індустріалізація 4.0»), яка характеризується універсалізацією інформаційно-комунікаційних технологій, автоматизацією виробничих процесів та цифровим регулюванням соціально-економічних і адміністративно-управлінських систем. Проаналізовано основні завдання цифровізації державного управління в Україні, серед яких розробка інтегрованих цифрових платформ, розвиток системи біометричної ідентифікації, впровадження технологій «великих даних» для моніторингу та оцінки ефективності, забезпечення відкритості та доступності державних установ через електронні приймальні та багатофункціональні портали, а також вдосконалення нормативно-правової бази. Особливу увагу приділено веб-порталу та мобільному застосунку «Дія» як прикладу успішної цифрової трансформації. Визначено стратегічні напрями модернізації державного управління в умовах індустріалізації 4.0: мінімізація управлінських помилок, зниження суб'єктивного впливу в ухваленні рішень, обмеження корупційних ризиків, удосконалення звітності та прогнозування за ключовими соціально-економічними показниками. Відзначено, що реалізація цих завдань сприятиме формуванню єдиного цифрового простору, що об'єднує всі рівні влади, забезпечить оперативне реагування на запити громадян і бізнесу, підвищить якість управління та ефективність*

державного управління. Таким чином, інноваційний розвиток розглядається як фундаментальна складова модернізації державного управління, спрямована на забезпечення конкурентоспроможності держави, сталого розвитку національного господарства та інтеграції в глобальну цифрову економіку.

**Ключові слова:** діджиталізація, цифровізація, публічне управління, державне управління, цифрові платформи.

**General statement of the problem and its connection with important scientific or practical tasks.** In modern conditions, digitalization has become a key factor in the transformation of social, economic and administrative relations. It increases the efficiency, flexibility, and transparency of management processes, contributing to the creation of new opportunities for human capital development, integration of innovations, and the formation of a competitive economy.

**Analysis of the latest research and publications.** The issue of digital transformation in public administration has been widely studied by both domestic and international researchers. Among them are Sydorenko N. and Shevchenko S. [1], Guogis A., Smalskys V., Reinholde I., Bileisis M., Klimovsky D., and Gavkalova N. [2], Forde J. S. [3], Busko M. and Apollo M. [4], Hamidani N. and Hamidani A. [5], Sydorenko N., Pakulova T., and Naumyk A. [6], among others. These studies analyze various aspects of digitalization in governance, including the introduction of e-government, the role of artificial intelligence in decision-making, and the impact of digital tools on administrative efficiency. However, despite the extensive body of research, the question of optimizing digital governance strategies, addressing cybersecurity challenges, and integrating digital platforms into public administration structures remains insufficiently explored.

**Formulation of the objectives of the article.** The purpose of this article is to analyze the key aspects of digital transformation in public administration within the framework of the Fourth Industrial Revolution, assess the current challenges of implementing digital governance solutions, and propose strategic directions for enhancing the efficiency and transparency of state governance through the use of advanced information and communication technologies.

**Research methods.** The research is based on a combination of theoretical and empirical methods, including system analysis, comparative analysis of regulatory frameworks, statistical data processing, and case studies of digital governance projects. The study also employs content analysis of academic literature, policy documents, and reports on digital transformation trends in public administration.

**Summary of the main research material.** The intensification of the introduction of digital technologies into all aspects of public life is a defining feature of the Fourth Industrial Revolution, which in scientific discourse is called "Industry 4.0" [1, p. 59]. It is characterized by:

- 1) universalization of the use of information and communication technologies that are constantly improving;
- 2) automation of key stages of industrial production;
- 3) expanding the use of digital mechanisms for managing socio-economic, and administrative and management systems [2; 3].

Traditional models of everyday life, industrial relations and economic activity are being transformed under the influence of digitalization, aimed at achieving greater mobility, flexibility and individualized approach to the realization of human capital [4, p. 74]. Industry 4.0 involves the creation of integrated digital platforms managed by artificial intelligence [5, p. 73], which, on the one hand, stimulates the development of

modern information and communication technologies, and on the other hand, complicates the nature of the tasks that are solved with their help.

In this regard, there is an urgent task to minimize barriers to Industry 4.0, since in the modern world it is rightly seen as a means of ensuring the competitiveness of the state. In this context, one of the important resources for solving this task is the participation of public authorities, which, on the one hand, should become drivers of digitalization of all sectors of the national economy, and on the other hand, adapt to new conditions by revising their own foundations and principles underlying their administrative and management activities.

Therefore, the digitalization of public administration is a global trend, the ultimate aim of which is to ensure the sustainable development of the national economy in response to the challenges of the digital economy [6; 7; 8]. The most effective tool for modernizing the process of making and implementing public decisions according to the requirements of the digital era is the development and implementation of platform solutions in the system of state and municipal administration, as well as the provision of services to the population [9, p. 20].

The result of this innovative activity will be the creation of a single digital space that will unite all levels of government and ensure prompt response to the needs of citizens and businesses. In the medium term, this will help improve the quality of management and increase its efficiency. In the long term, a significant improvement in the quality of economic growth and national competitiveness indicators is expected, as the implementation of effective public administration that meets the challenges of the digital economy is one of the key factors of sustainable development in the current conditions.

At the current stage of development of the digital economy, and information and communication technologies, the digitalization of public administration is seen as a complex task that includes the following key elements:

- 1) development of a single digital platform that integrates and uses a large array of information data;
- 2) development of a biometric identification system, as well as improvement of mechanisms for ensuring the confidentiality and security of personal data in the process of providing electronic public services to the population;
- 3) use of “big data” technologies for monitoring and evaluating the performance of enterprises and organizations, including public authorities;
- 4) ensuring openness and accessibility of public institutions by introducing electronic reception offices, portals, and official multifunctional centers into their structure;
- 5) development of the regulatory and legal framework governing digital control and supervision activities, as well as provision of resources for the bodies performing these types of supervision.

An example of such platforms today is the web portal and mobile application “Diia” [10]. Launched in 2020, “Diia” has almost 22 million users as of the beginning of 2025, with more than 30 services available in the app and more than 120 on the portal [11].

It is important to note that according to the Online Services Index 2024, which is a part of the global E-Government Development Index research conducted by the UN to assess the digital maturity of 193 countries, Ukraine ranks 5th in terms of digital public services development [12]. This result demonstrates significant progress in the implementation of digital technologies in public administration, while pointing to the need to further improve mechanisms and tools to effectively respond to the current challenges of digital transformation.

It is obvious that today, the task of modernizing state and municipal administration does not lose its relevance and is complemented by new promising areas of development, in particular:

- 1) development and improvement of the system of super-services;
- 2) integration of various digital resources that accompany the activities of public authorities into a single system – a united front;
- 3) improvement of the system of documentary support for administrative and management activities of public administration and municipal authorities;
- 4) development and implementation of a single standard for managing the life cycles of large amounts of digital data;
- 5) improvement of remote technologies for monitoring and evaluating the activities of regional state institutions and municipal authorities.

Therefore, the public administration, which is being transformed in the context of Industry 4.0, faces strategic tasks aimed at:

- 1) minimizing administrative and management mistakes;
- 2) reducing of subjective factor influence in decision-making;
- 3) limiting corruption factors at the municipal and regional levels of public authorities;
- 4) improving the quality of reporting and forecasting of key indicators of socio-economic activity of state and municipal authorities.

**Conclusions.** Thus, innovative development is a determining factor in the modernization of public administration aimed at increasing its efficiency, flexibility and transparency in the context of digital transformation. Digitalization, as a key component of Industry 4.0, is forming new approaches to management processes by integrating modern technologies to solve current challenges.

Ukraine has made significant progress in implementing digital public services, as evidenced by its high positions in international rankings. However, in order to achieve full integration of digital tools into the public administration system, it is necessary to continue developing key areas, such as creating integrated platforms, improving the regulatory and legal framework, ensuring data protection, and improving the quality of administration at all levels.

The strategic tasks of the modernization of public administration include minimizing management mistakes, reducing the subjective factor influence, limiting corruption risks, and improving reporting. The implementation of these tasks will help create a single digital space that will ensure the sustainable development of the national economy and increase the competitiveness of the state in the long term.

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