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DIGITAL TRANSFORMATION OF MANAGEMENT PROCESSES IN STATE AND PUBLIC ORGANIZATIONS: FEATURES, DIRECTIONS, AND RECOMMENDATIONS FOR DEVELOPMENT

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Abstract. The paper objective is to investigate the current state of digital transformation processes in management of state and public organizations, identifying features, developing directions, and recommendations for further effective implementation of digital initiatives in state and public structures.

Approach. The main approach chosen was to research, study, and systematize information on the main ways of input and output data of the system for providing state services in an online mode, aiming to form a current scheme of functioning of elements of digital transformation in management processes of state and public organizations in Ukraine. The obtained research results allowed to: identify key factors of digital transformation development processes in management of state and public organizations in Ukraine; highlight the main advantages and disadvantages of applying technologies and tools of digital transformation; identify prospective directions for further development of digital transformation in management processes of state and public organizations; formulate key conditions for successful implementation of technologies and tools of digital transformation in Ukraine; develop a framework for implementing technologies and tools of digital transformation processes in management of state and public organizations to accelerate the implementation of technologies and processes of digital transformation.

The research finding is the developed current structure of functioning of elements of digital transformation in management processes of state and public organizations in Ukraine, identified key directions and conditions for successful implementation of technologies and tools of digital transformation. A framework with a detailed description of stages and steps for successful implementation of technologies of digital transformation in management processes of state and public organizations has been developed, which is a strategic tool aimed at effective implementation of digital initiatives. The developed framework will ensure consistency and effectiveness in the implementation of digital transformation strategies in management processes in state and public organizations in Ukraine.

Keywords: framework, state organizations, public organizations, digital transformation, public administration

JEL Classification: L30, E62, H10, L32, O32

INTRODUCTION

In the era of rapid technological advancement, digital transformation becomes not only a necessity but also a strategic priority for governmental and societal organizations. Digital innovations enhance managerial processes, create new opportunities to ensure efficiency, convenience in providing services to citizens and businesses, and foster increased trust in governmental structures.

Digital transformation within the framework of public administration faces a wide spectrum of challenges that complicate its successful implementation, namely: technological barriers, infrastructure deficiencies, cybersecurity threats, data confidentiality, low levels of digital literacy among personnel and leadership, bureaucratic hurdles, and instability in managerial processes. Addressing these challenges requires comprehensive analysis and a strategic approach.

Given the above, it is necessary to conduct research not only into the current state of digital initiatives but also to identify priorities, directions, and recommendations for the further development and implementation of technologies and tools for digital transformation in governmental and societal organizations. This underscores the relevance of the topic of this article.

LITERATURE REVIEW

As part of the conducted scientific research, aimed at writing this article, the following works of Ukrainian experts-researchers were considered and analyzed: The digital state in the context of legal reforms in Ukraine: the theoretical and legal aspect (Nadzhafl, 2022: 202-217), Digital transformation of the state as a new stage of administrative reform (Mikhrovska, 2021: 119-127), State policy in the conditions of digitalization of society. international experience of implementation of digitalization programs and strategies (Khaustova, 2022: 209-216), The essence and features of digital transformation (Iakushko, 2022: 75–82), Benefits, risks and problems of digitalization of society: general theoretical aspect (Khaustova, 2023: 753-759), Digital transformation of the public management model: foreign experience and domestic realities (Skoryk, Riabokon, 2020: 1-7), Trends in the development of the digital economy in Ukraine (Kotelevets, 2022: 1-8), Implementation of Advanced Digital Production Technologies within the Framework of Sustainable Development Concept: Problems and Prospects (Ostrovska, 2022: 59–68), Digitization as the main factor in the development of business structures (Zhyhalkevych, Zalutskyi, 2020: 1-9).

PAPER OBJECTIVE

Researching the current state of digital transformation processes in government and public organizations, identifying peculiarities, developing directions, and recommendations for further effective implementation of digital initiatives in governmental and public structures.

APPROACH

The approach chosen for writing this article involved researching, studying, and systematizing information regarding the main pathways of input and output data in the online government service provision system to form the current functioning scheme of digital transformation elements in the processes of managing state and public organizations in Ukraine (Diia. Government services online, 2024). The obtained research results allowed identifying key features, determining main development directions, and developing a framework for implementing technologies and tools for digital transformation processes in government and public organizations to expedite the adoption of digital transformation technologies and processes.

RESULTS AND DISCUSSION

To achieve the set goal, the following tasks have been identified:

1. Investigate and analyze the current state of functioning of elements of digital transformation in the processes of managing state and public organizations in Ukraine.
2. Determine the key factors in the development of digital transformation processes in the management of state and public organizations in Ukraine.
3. Identify the main advantages and disadvantages of implementing technologies and tools for digital transformation.
4. Determine prospective directions for further development of digital transformation in the processes of managing state and public organizations.
5. Formulate the key conditions for the successful implementation of technologies and tools for digital transformation in Ukraine.
6. Develop a framework for the implementation of technologies and tools for digital transformation processes in the management of state and public organizations in Ukraine.

Figure 1 presents the current functioning of elements of digital transformation in management processes within Ukrainian state and public organizations.

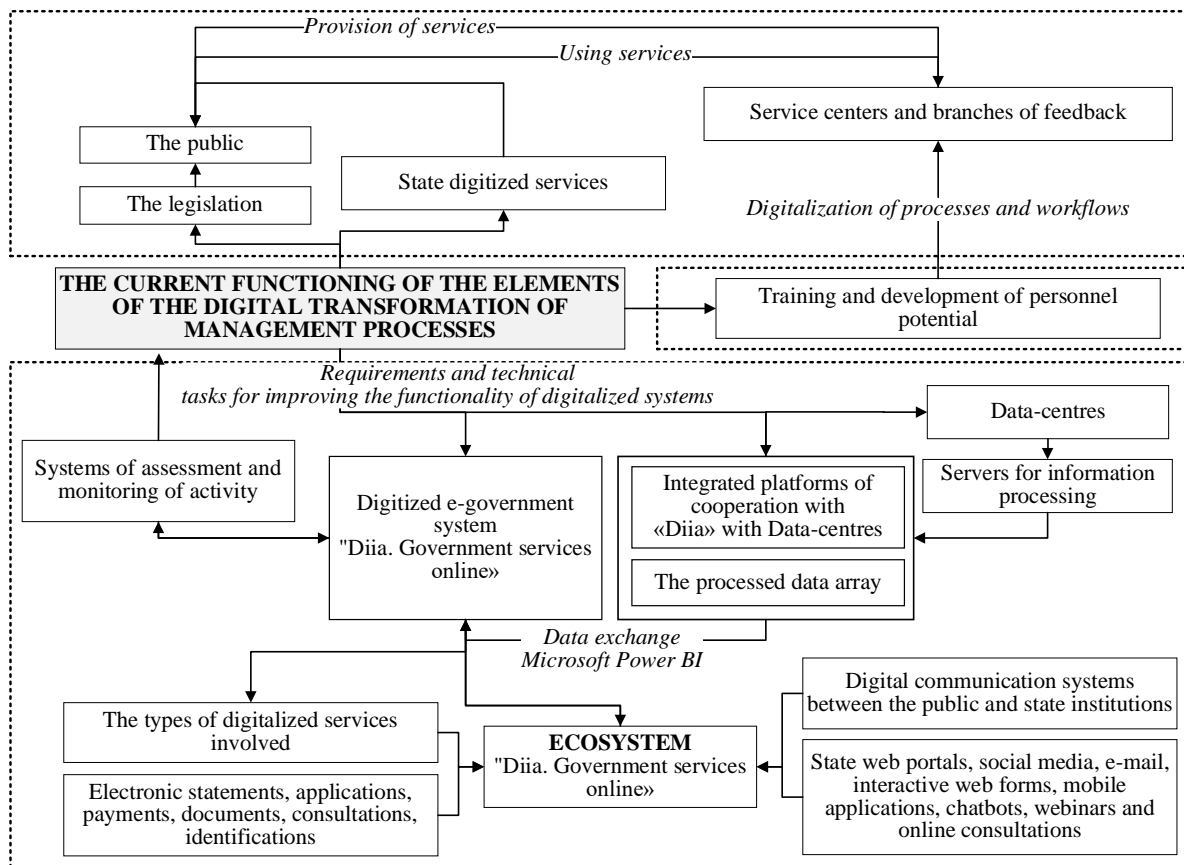


Figure. 1. The current functioning of elements of digital transformation in management processes within Ukrainian state and public organizations.

Source: (Diia. Government services online, 2024), (Nadzhafli, 2022: 202-217), (Mikhrovska, 2021: 119-127), (Khaustova, 2022: 209-216), (Iakushko, 2022: 75-82)

As seen from the data in Figure 1, the current functioning of elements of digital transformation in management processes within Ukrainian state and public organizations involves

the interaction of digital platforms and integrators with the systemic core "Diia," forming the overall model of the "Diia. Government services online" digital governance ecosystem.

Public opinion and legislation set the pace for the development and implementation of new classifications of state services. To interact with the "Diia. Government services online" ecosystem, legal entities and individuals utilize the digital platform "Diia" or engage with service centers or executive agencies (representations) that provide state services.

For the operation of the digitized platform "Diia. Government services online," the Ministry of Digital Transformation of Ukraine develops training programs and builds a core workforce and teams of specialized IT professionals. These teams continually improve the digitized platform "Diia. Government services online," partner integrator platforms, and Data Centers, which act as intermediate systems for receiving, analyzing, and processing client data through Microsoft Power Bi analytics and dashboarding software, Microsoft Azure.

The main types of digitized state services include electronic applications and inquiries, payment for state services, generation of digital documents as requested, provision of consultations, and identification of client and business data.

To facilitate the process of remote communication between the public and state institutions, "Diia. Government services online" utilizes government institution web portals, social media, email, interactive web forms, mobile applications, chatbots, webinars, and online consultations.

Thus, the identified elements form a resilient ecosystem of digital governance in the state, known as "Diia. Government services online."

Figure 2 presents the key factors for the development of digital transformation processes in management within Ukrainian state and public organizations.



Figure. 2. Key factors of digital transformation development in management processes within state and public organizations in Ukraine.

Source: (Zhyhalkevych, Zalutskyi, 2020:1-9)

The identified key factors, presented in Figure 2, accelerate the pace of digital transformation in management processes within state and public organizations in Ukraine. Technological progress, the development of AI, blockchain, and IoT technologies, offer broad opportunities for modernizing and optimizing the public sector. The increasing level of digital literacy in society reflects a general interest and readiness to use new technologies. The need to optimize government and managerial processes requires the search for effective and innovative solutions that enhance productivity and ensure transparency in governance processes. The rise of international competition compels state organizations to actively adopt digital technologies to remain competitive in the global market. Optimizing human resources and enhancing the security of digital data are important aspects that ensure the stability and reliability of digital systems. Legal regulation of technologies and

digitization processes creates the necessary legal framework for the development of the digital ecosystem and the protection of the rights of citizens and businesses in the online environment.

Figure 3 illustrates the main advantages of applying technologies and tools for digital transformation of management processes in state and public organizations in Ukraine.

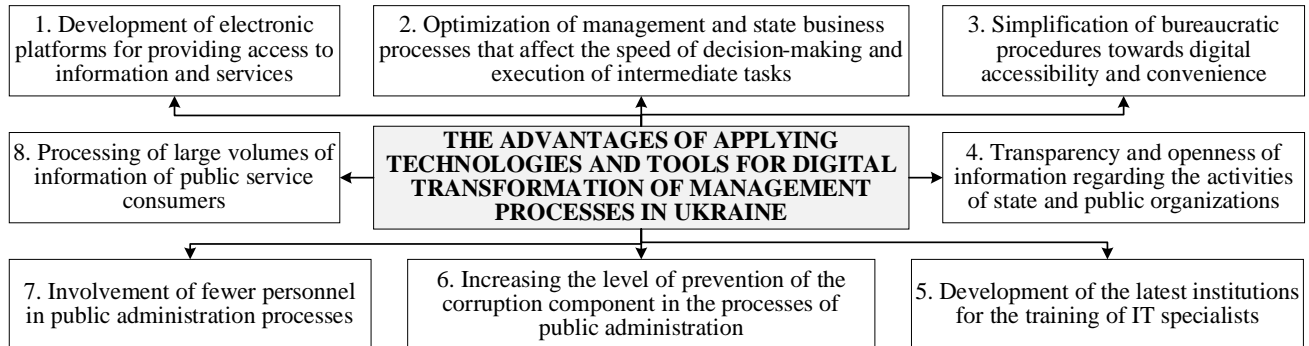


Figure. 3. The advantages of applying technologies and tools for digital transformation of management processes in state and public organizations in Ukraine.

Source: (Ostrowska, 2022: 59-68), (Kotelevets, 2022: 1-8), (Skoryk, Riabokon, 2020: 1-7)

According to the data in Figure 3, the development and implementation of digital technologies in Ukraine are crucial for improving access to information and services, optimizing government processes, and simplifying bureaucratic procedures. This contributes to increasing transparency in the activities of state and public organizations, reducing the level of corruption risks, more efficient use of personnel, and processing large volumes of information. The development of these aspects opens up new opportunities for enhancing the effectiveness of public administration and improving the quality of life of citizens by providing convenient services online.

Figure 4 presents the main drawbacks of applying technologies and tools for digital transformation of management processes in state and public organizations in Ukraine.

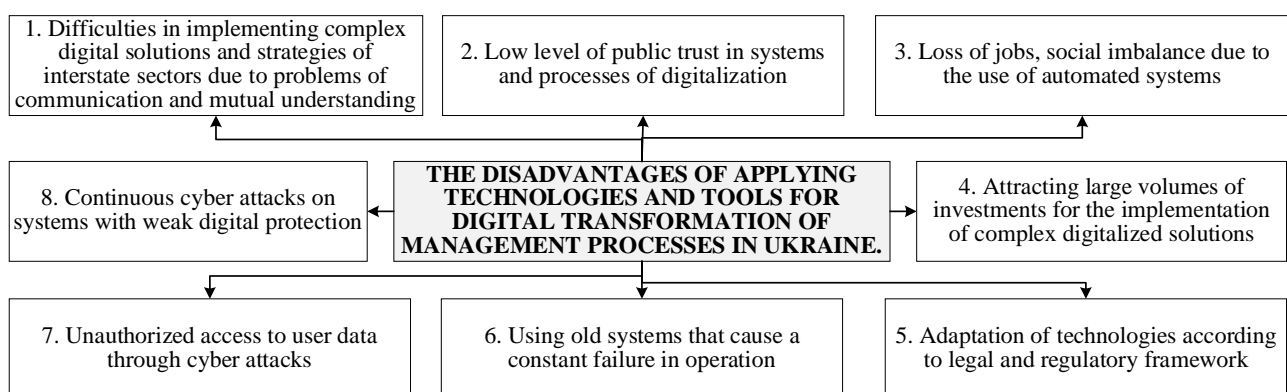


Figure. 4. The disadvantages of implementing technologies and tools for digital transformation of management processes in state and public organizations in Ukraine.

Source: (Khaustova, 2023: 753-759)

According to the data from Figure 4, the identified disadvantages represent real challenges that hinder effective digital transformation of management processes in governmental and public

organizations. Difficulties in implementing comprehensive digital solutions across government sectors indicate the need for improved communication and collaboration among them to achieve common goals. The low level of society's trust in digital systems and processes indicates the need to enhance transparency, openness, and citizens' confidence in digital initiatives.

Based on the results of the conducted research, prospective directions for further development of digital transformation processes in governmental and public organizations have been identified, as presented in Figure 5.

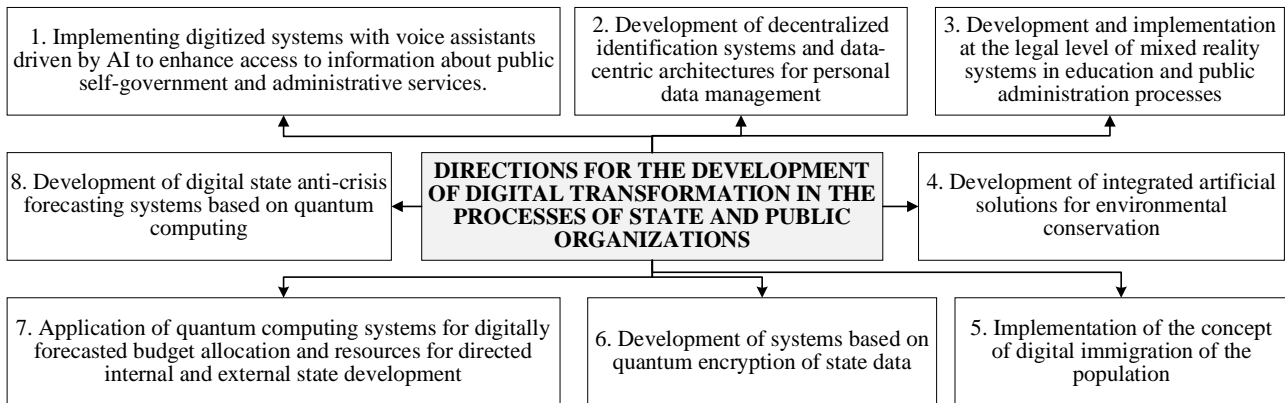


Figure. 5. Prospective directions for further development of digital transformation processes in governmental and public organizations in Ukraine.

Source: developed by the author based on his own research

The proposed directions for further development of digital transformation processes in state and public organizations in Figure 5 are of great importance for modernizing and optimizing administrative and public processes. Implementing digital systems with voice assistants powered by artificial intelligence helps improve access to information and services of public governance. The development of decentralized personal data management systems contributes to preserving the confidentiality and security of citizens' personal information. The application of mixed reality systems in the legal sphere opens up new opportunities for learning and efficient management of state processes. The use of quantum budget management and forecasting technologies will help ensure efficient resource allocation and reduce economic crisis risks in the future. The development of digital crisis forecasting systems and the implementation of digital immigration create new opportunities for adapting to societal changes and global challenges. All these initiatives reflect not only technological progress but also offer prospects for creating a more efficient, fair, and resilient management system that meets the needs of the modern world.

It should be noted that successful implementation of digital transformation technologies and tools in Ukraine requires adherence to certain conditions outlined in Figure 6.

According to Figure 6 data, successful digital transformation in Ukraine requires a corresponding strategy and adherence to key principles. Clear formulation of strategic goals for digital transformation is the first step, as it sets the direction of actions and defines expectations. Active involvement of leaders in implementing digital transformation projects is critical as it fosters commitment and support from the staff. Careful strategic planning, including defining stages and sequential implementation, allows for efficient management of the transformation process and reduces risks.

Systematic risk assessment and development of risk management strategies enable responding to potential negative consequences and minimizing their impact. Utilizing flexible methodologies facilitates adaptation to changes and ensures swift response to new challenges. Ensuring effective

partnership with IT providers and quality control of services rendered ensures reliability and quality of technological solutions.

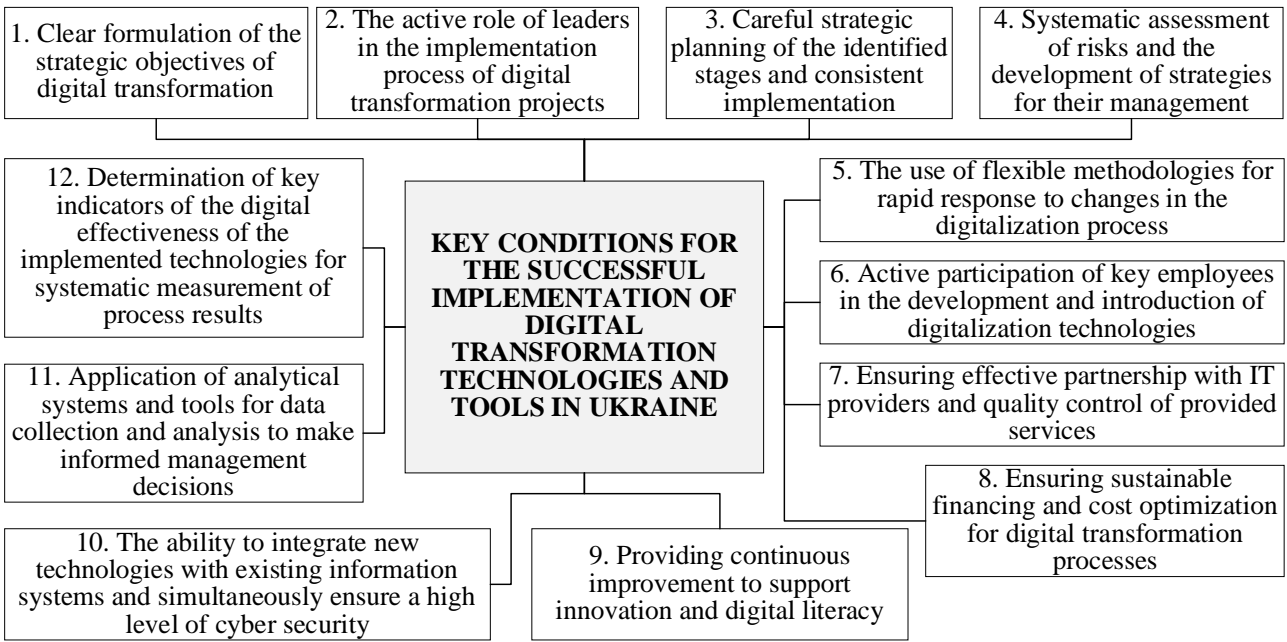


Figure. 6. Key conditions for the successful implementation of digital transformation technologies and tools in Ukraine in the processes of managing state and public organizations

Source: developed by the author based on his own research

Balancing financial resources and optimizing expenses ensures the stability and efficiency of digital transformation processes. Continuous improvement and the ability to integrate new technologies with existing systems support innovative development and compatibility. Application of analytical systems and tools for data collection and analysis provides the opportunity to make well-founded managerial decisions in a timely manner. Defining key indicators of digital effectiveness and systematic measurement of results help ensure transparency and efficiency of transformation processes.

Figure 7 presents a framework for implementing technologies and tools for the digital transformation of management processes in state and public organizations.

According to Figure 7 data, the developed framework for implementing technologies of digital transformation of management processes in state and public organizations is a strategic tool aimed at effective implementation of digital initiatives. The first stage of the framework involves conducting an analysis, which allows for a deep study of current processes, identifying shortcomings, and determining prospects for improvement. The next stage is planning and developing a pilot concept aimed at creating a structured action plan, discussing strategic approaches, and selecting optimal technologies for implementation. During the implementation and deployment stage, testing, simulation, adaptation, and staff training processes are actively carried out. Monitoring and evaluation of results allow real-time tracking of the effectiveness of measures and adjustment of the strategy. The final stage is optimization and development, where systematic improvement of technologies and processes enables state and public organizations to remain competitive and adaptive to changes in the digital environment.

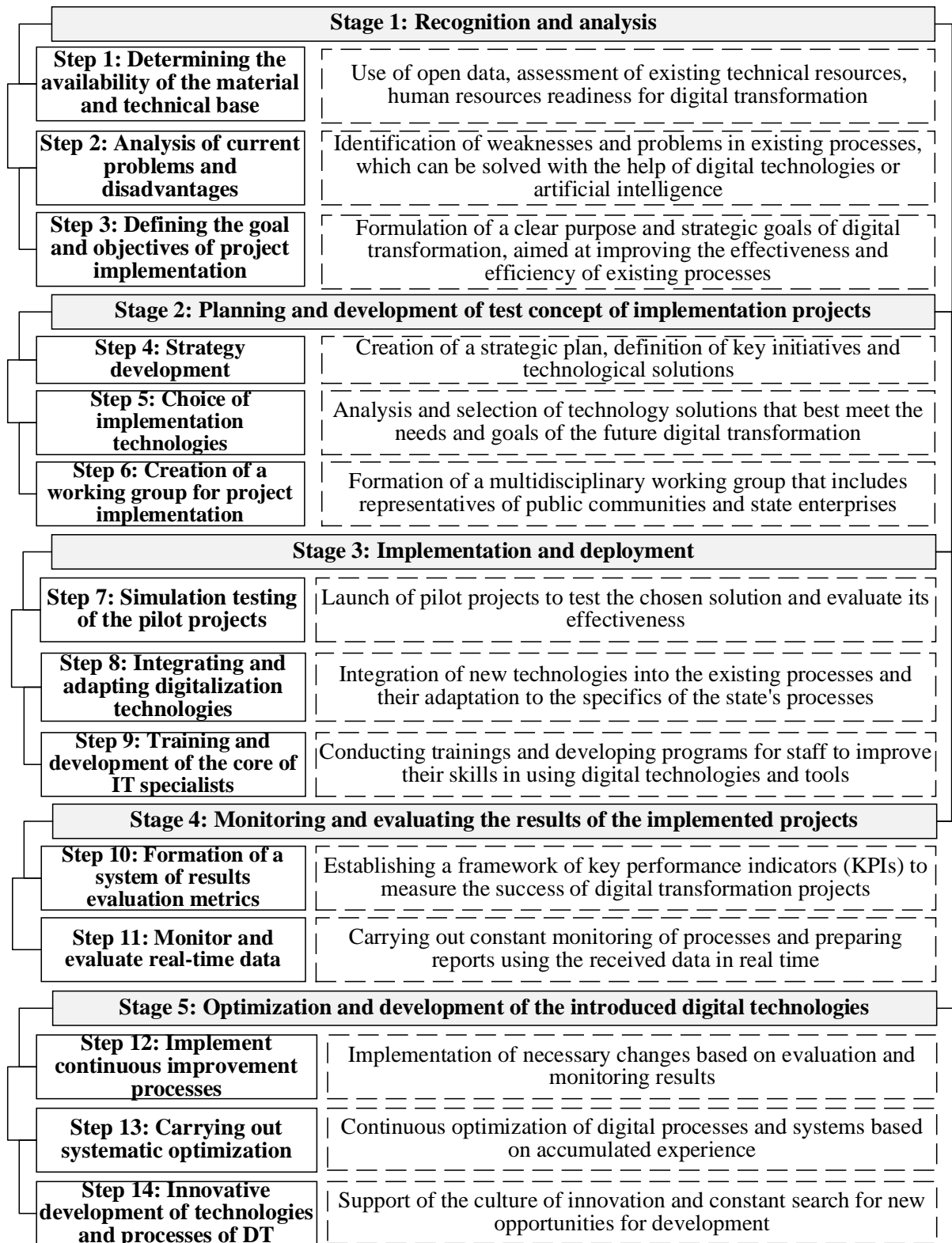


Figure. 7. Framework for implementing technologies and tools for digital transformation of management processes in state and public organizations.

Source: developed by the author based on his own research

This approach ensures consistency and effectiveness in the implementation of digital strategies and is key to the successful digital transformation of management processes in state and public organizations in Ukraine.

CONCLUSION

Summing up the results of this article, a current structure for the functioning of elements of digital transformation in the processes of managing state and public organizations in Ukraine has been developed, indicating the main types of provision of digitized public services: submission of electronic applications and appeals, payment for state services, generation of digital documents according to the chosen service, consultation, and identification of client and business data capacities. For communication between the public and government agencies, web portals of government institutions, social media, email, interactive web forms, mobile applications, chatbots, webinars, and online consultations are used. The identified elements and features of their functioning form a stable ecosystem of state digital governance called "Diia - E-government".

Equally important is the implementation of technologies and tools for effective management of state and public organizations. The identified key factors influencing digital transformation in Ukraine, covering international and domestic factors, reflect favorable conditions and challenges of the external and internal environment. Successful digital transformation requires a comprehensive approach that includes not only applied technologies and tools but also cultural changes and strategic vision of implementation objects.

Alongside the benefits of digital transformation, such as increased efficiency and improved service quality, drawbacks have been highlighted, including cybersecurity issues and challenges of integrating new technologies with existing systems. The main directions for the development of digital transformation aimed at continuous improvement of management practices and stimulation of innovation have been identified. In particular, it has been noted that key success factors in technology implementation include strategic planning, partnership with IT companies, and continuous improvement of processes, which are necessary for the stable development of the digital ecosystem in Ukraine.

The developed framework for the implementation of digital transformation technologies in state and public organizations represents a strategic tool aimed at effective implementation of digital initiatives. The first stage of the framework includes recognition and analysis, which allows for a deep study of current processes, identification of their shortcomings, and determination of prospects for improvement. Equally important is planning and development of a test concept aimed at creating a structured action plan, discussing strategic approaches, and selecting optimal technologies for implementation.

During the implementation and implementation stages, testing, simulation, adaptation, and staff training processes are actively carried out. Monitoring and evaluation of results allow real-time tracking of the effectiveness of measures and adjustment of strategy. The final stage identifies steps for optimization and development, where systematic improvement of technologies and tools is carried out, allowing government organizations to remain competitive and adaptive to changes in the digital environment. The developed approach will ensure consistency and effectiveness in the implementation of digital strategies and will be the key to success in the era of digital transformation of state and public enterprises.

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ЦИФРОВА ТРАНСФОРМАЦІЯ ПРОЦЕСІВ УПРАВЛІННЯ В ДЕРЖАВНИХ І ГРОМАДСЬКИХ ОРГАНІЗАЦІЯХ: ОСОБЛИВОСТІ, НАПРЯМКИ ТА РЕКОМЕНДАЦІЇ ЩОДО РОЗВИТКУ

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Анотація. Метою роботи є дослідження поточного стану цифрової трансформації процесів управління в державних та громадських організаціях, визначення особливостей, розробка напрямків та рекомендацій щодо подальшого ефективного впровадження цифрових ініціатив у державних та громадських структурах.

В якості підходу було обрано дослідження, вивчення та систематизацію інформації щодо основних шляхів вхідних та вихідних даних системи надання державних послуг с режимі онлайн, з метою для формування поточної схеми функціонування елементів цифрової трансформації в процесах управління державними та громадськими організаціями України. Отримані результати дослідження дозволи: визначити ключові фактори розвитку цифрової трансформації процесів управління в державних та громадських організаціях України; виокремити основні переваги та недоліки застосування технологій та інструментів цифрової трансформації; визначити перспективні напрямки подальшого розвитку цифрової трансформації в процесах управління державними та громадськими організаціями; сформувати ключові умови успішного впровадження технологій та інструментів цифрової трансформації в Україні; розробити фреймворк впровадження технологій та інструментів цифрової трансформації процесів управління в державних та громадських організаціях для пришвидшення впровадження технологій та процесів цифрової трансформації.

Результатом дослідження є розроблена поточна структура функціонування елементів цифрової трансформації в процесах управління державними та громадськими організаціями України, визначені ключові напрямки та умови успішного впровадження технологій і інструментів цифрової трансформації. Розроблено фреймворк з детальним описом етапів і кроків для успішного впровадження технологій цифрової трансформації в процесах управління державними та громадськими організаціями, що є стратегічним інструментом, орієнтований на ефективну реалізацію цифрових ініціатив. Розроблений фреймворк забезпечить послідовність та результативність у впровадженні цифрових стратегій трансформації процесів управління у державних та громадських організаціях України.

Ключові слова: фреймворк, державні організації, громадські організації, цифрова трансформація, державне управління.