



TRANSFORMATION OF MECHANISMS OF STATE MANAGEMENT OF SUSTAINABLE REGIONAL DEVELOPMENT IN THE GLOBAL SPACE DIGITALIZATION

*Transformação dos mecanismos de gestão do estado para o desenvolvimento regional sustentável
no contexto global da digitalização*

Marta Derhaliuk¹, Ivan Blahun², Maryna Shashyna¹, Anna Pohrebniak¹, Serhii Ivantsov³, Danylo Berezovskyi⁴

¹National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, Kyiv, Ukraine,

²Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk, Ukraine,

³University of Customs and Finance, Dnipro, Ukraine, ⁴Academician Yuriy Bugay International
Scientific and Technical University, Kyiv, Ukraine

E-mail: marta17.06@ukr.net , ivan.i.blahun@pnu.edu.ua , shashyna.marina@gmail.com,
anna.u.pogrebnyak@gmail.com , kaf_mev@ukr.net , d.berezovskyi@istu.edu.ua

ABSTRACT

State regulatory policy is an important factor in innovation and investment development of enterprises, as it ensures creation of favorable investment climate that will provide for attraction of capital to implement innovation projects. In the context of global competition, countries must develop effective legal regulation that not only supports national enterprises, but also promotes their integration into the international economic space. The purpose of the study is to substantiate principles of the regulatory policy of innovation and investment development of enterprises in the context of global digitalization. In the article, feasibility of applying methodology of the institutional approach to the study of the regulatory policy of innovation and investment development of enterprises in the context of global digitalization is substantiated. Criteria for effective innovative and investment development of enterprises in the context of global digitalization are analyzed. Principles of the mechanism of the regulatory policy for innovative and investment development of enterprises and its functionalities are outlined directed to create conditions for formation and development of potential and activation of innovative and investment activities of enterprises. Since digitalization of the policy is manifestation of globalization processes, which radically changes modern trends in political processes, functional purpose of institutional institutions and scenarios for development of processes in the future, directions for increasing effectiveness of the regulatory policy through digitalization were determined as the tool to improve methods and tools for interaction between participants in innovative and investment processes.

Keywords: Legal regulation, Regulatory policy, Regulatory framework, Public participation, Public activity, State, Innovation development, Investment development, Enterprises, Digitalization, Management

SUBMETIDO EM: 29/07/2025

ACEITO EM: 20/09/2025

PUBLICADO EM: 30/10/2025



TRANSFORMAÇÃO DOS MECANISMOS DE GESTÃO DO ESTADO PARA O DESENVOLVIMENTO REGIONAL SUSTENTÁVEL NO CONTEXTO GLOBAL DA DIGITALIZAÇÃO

*Transformation of mechanisms of state management of sustainable regional development
in the global space digitalization*

Marta Derhaliuk¹, Ivan Blahun², Maryna Shashyna¹, Anna Pohrebniak¹, Serhii Ivantsov³, Danylo Berezovskyi⁴

¹National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, Kyiv, Ukraine,

²Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk, Ukraine,

³University of Customs and Finance, Dnipro, Ukraine, ⁴Academician Yuriy Bugay International
Scientific and Technical University, Kyiv, Ukraine

E-mail: marta17.06@ukr.net , ivan.i.blahun@pnu.edu.ua , shashyna.marina@gmail.com,
anna.u.pogrebnyak@gmail.com , kaf_mev@ukr.net , d.berezovskyi@istu.edu.ua

RESUMO

A digitalização do desenvolvimento social, que adquiriu proporções globais, determina a transformação dos mecanismos de gestão estatal do desenvolvimento regional. A transformação dos mecanismos de gestão estatal sob o impacto da digitalização proporciona o aumento da eficiência dos mecanismos de gestão e o desenvolvimento ativo das regiões e do país como um todo, o que determina a relevância do estudo. O objetivo do estudo é fundamentar os princípios da transformação dos mecanismos de gestão estatal do desenvolvimento regional no contexto da digitalização, utilizando a base metodológica da abordagem institucional. Os princípios metodológicos do estudo da transformação dos mecanismos de gestão estatal do desenvolvimento regional no contexto da digitalização, utilizando a abordagem institucional, são fundamentados e o sistema de princípios metodológicos é definido. Tarefas, objetivos e direções da transformação dos mecanismos de gestão estatal do desenvolvimento regional no contexto da digitalização são delineados. As tarefas prioritárias da transformação dos mecanismos de gestão estatal são determinadas. As funcionalidades, os métodos diretos e indiretos de gestão e o impacto dos mecanismos de gestão estatal no contexto da digitalização no desenvolvimento regional são destacados. Está comprovado que a transformação dos mecanismos de gestão estatal do desenvolvimento regional ocorre no contexto da digitalização e tem impacto na aceleração da atividade econômica, na modernização das áreas de recursos da atividade regional, na ampliação das oportunidades de recebimento de serviços sociais e na autorrealização do capital humano.

Palavras-chave: Regulamentação legal, Política regulatória, Marco regulatório, Participação pública, Atividade pública, Estado, Desenvolvimento da inovação, Desenvolvimento do investimento, Empresas, Digitalização, Gestão

INTRODUCTION

Rapid global development, affecting all socio-economic systems, require transformation of mechanisms of state management in accordance with modern challenges for more effective solutions of current and strategic tasks of economic development. Modern development of information and communication technologies provides for using relevant methods and means of information processing in state management of the regional developments and the country as a whole, which leads to transformation of mechanisms of state management within digitalization.

Today, it is impossible to imagine a country that would not have questions about increasing its effective inclusion in global globalization as an active actor. Effective mechanisms for state regulation of regions allow the latter to achieve maximum external benefits while minimizing internal costs. At the same time, the important aspect for any country is maximal use of global development and the world economy for benefit by implementing its own national interests. At the same time, globalization leads to emergence of new risks, which requires establishment of close interaction with other actors on the world stage. Integration of the country into the world economy depends on many different factors, including level of economic development and relations with other participants in the global space. In this context, it is important to stimulate the country's regional development by increasing effective mechanisms of state regulation within digitalization to ensure achievement of principles of the regional sustainable development, their competitiveness, considering historical, geographical, natural, resource, innovative and other features. Regions as objects of public administration can maximally consider needs and capabilities of territories to meet the ever-growing needs both within their territory and beyond.

1 LITERATURE REVIEW

The purpose of the study (Voronov O. et al., 2023) is to form the mechanism for state management of the planning system of the regional sustainable development within digitalization. The authors have developed the functional mechanism for state management of the planning sytem of the regional sustainable development within digitalization, which will contribute to better planning of ctivities of state administration bodies and increase efficiency and speed of digitalization.

The authors (Alicandro M. et al., 2022) have investigated that combination of QGIS and Lizmap software guarantees simple way to implement free and open-source web GIS and is a good solution to transit public administration to using free and open-source software according to requirements of the European Commission. According to researchers, the tool aims to ensure maximum transparency for citizens, who can access the geoportal to see how the funds allocated by the region, the Italian nation and the European Community are distributed and spent. Within the research (Popelo O. et al., 2021; Marhasova V. et al., 2024, Jakubek P. et al., 2023), functions of public administration in digitalization were analyzed and the mechanism for public administration of development of digital technologies in the national security system was developed.

Within the article (Liannoi Y. et al., 2024), it is proven that globalization and digitalization have significant impact on development of the society and demonstrated lack of clear patterns against the background of increasing turbulence in the market space, which complicates development of the universal model of public administration. The authors have developed the model for optimizing public administration through digitalization in education and science, which can be applied as the element of the national strategy for public administration through digitalization of education and science. In the article (Popa Ion et al., 2024) it is analyzed how integration of digitalization improves management in public organizations. The authors prove that digitalization of public institutions has positive impact on the main functions of management.

The authors (Mthuli Syanda A., 2024) have shown that evaluation of government performance remains one of the most heated debates in democratic countries and problematic in countries. According to the authors, the digital age affects all aspects of life, requiring changes, in particular integration of advanced technologies to facilitate the policy implementation and efficient delivery of public service. The researchers investigated digitalization of employee performance in human resource management to study its contribution to the policy implementation and problems of public service delivery in the country.

Scholars (Salim Kurnaz et al., 2024) study ways, methods and goals of digitalization in public institutions and use of tools and social media of e-government to reach citizens. The authors analyzed corporate communication

and ways in which public institutions communicate with citizens, as well as the level of use of e-government and social media and methods of Turkish public institutions. The authors (Nikiforov P. et al., 2022; Zhavoronok A. et al., 2022) analyzed principles of regulating state policy for development of public-private partnership and urgency of the regulatory policy in modern conditions.

The purpose of the study (Shandryk V. et al., 2024) is to analyze genesis of social phenomenon of digitalization of public administration systems in the modern world. The authors are convinced that in the conditions of humanity's transition to the information society, a new understanding of the public administration essence is being formed. Scientists have revealed the content and essence of the main stages of transition from the "new public administration" to the more modern "digital" administration based on "customer-oriented" integrity and the widespread use of information and communication technologies.

The scientific paper (Sánchez-Bayón A. et al., 2024) is devoted to the analysis of state intervention and change management within digitalization. Faced with the main guidelines for state intervention, which usually involve significant costs, the authors proposed the solution based on revival of original principle of sustainability, adaptation effect and promotion of geek'n'talent education to facilitate transition to the knowledge economy.

The results of research (Pasenko N. et al.; 2023, Jakúbek P. et al., 2023) prove the need to modify the model of public administration, which covers the foundations of public life, the construction of a progressive digital country and the implementation of digital projects at the national level. The authors are convinced that the study of the social effectiveness of management decisions made by state authorities is primarily due to the fact that the reengineering of the administrative system must meet the modern requirements of the public sector to achieve a successful result. Scientists argue that this process should embody the desires and needs of Ukrainians, when systematic monitoring and analysis will identify existing gaps for improving the state policy of digitalization.

Despite the publication activity on this object of research, which confirms relevance and timeliness of this scientific research, it leads to the deepened theoretical, methodological and practical developments on transformation of mechanisms of public management of the regional development within digitalization.

The purpose of the study is to substantiate principles of transformation of mechanisms of state management of the regional development within digitalization using the methodological basis of the institutional approach. To achieve the goal, the following tasks were performed in the study:

- analytical study of the latest publications on this topic was conducted, which provide for substantiation of relevance and timeliness of the study;
- methodological principles of the study of transformation of mechanisms of state management of the regional development within digitalization using the institutional approach and definition of the system of methodological principles are substantiated;
- tasks, goals and directions of transformation of mechanisms of state management of the regional development within digitalization are outlined;
- functionalities, direct and indirect methods of management and influence of public administration mechanism within digitalization and the regional development are highlighted.

2 THEORETICAL FRAMEWORK AND METHODOLOGY

Digitalization that occur under impact of formation of post-industrial society are manifested in their dynamic spread in all spheres of activity, including state management of the regional development. The institutional approach as the methodology for transformation of state management of the regional development makes it possible to consider complexity, scale and cover the full range of transformation tools of the mechanism in these conditions. The institutional approach allows us to present changes in relationships and interconnections between subjects of economic relations at different levels, state and market institutions, as well as their mutually conditioned influence, considering involvement of digital technologies. According to the institutional approach, institutions and principles of their functioning play the major role in the regional development through regulatory influence, effectiveness and stability of legislation, development of the system of coercion and motivation, as well as informal rules and foundations inherent in the regions. The broad and effective system of institutions reduces uncertainty of the regional development business entities due to monitoring possible threats, prevention and mitigation of their consequences.

The institutional approach makes it possible to consider institutional changes, impact of state regional management mechanisms on the regional development, to ensure harmonization of the regional and national development, as well as in relation to the vector of globalization changes.

Advantage of the institutional approach methodology is that it allows us to study the regional development under the impact of transformation of the mechanism of their public administration within digitalization with high degree of logic, subordination of identification of changes and their consequences under the impact of diverse factors.

Principles of transforming the mechanism of state management of the regional development include as follows:

- informational - provided by the information and communication technology system; flexibility - ensures rapid adaptability of the transformation mechanism to changes in social development, which, for example, may be caused by the pandemic or military actions;

- innovativeness – ability to generate and implement innovative models of public administration;

- algorithmicity – adherence to sequence of reform, achievement of hierarchically structured goals of state management of the regional development, control and constant monitoring of transformation processes;

- digitalization – ensuring formation and implementation of the single information model using the system of information and communication technologies to manage the regional development;

- complementarity – using digital technologies to conduct analysis, assessment, strategic planning of activities and their coordination with plans of other stages and control over their compliance;

- axiological - by building a system of values of the regional development, which emphasizes intellectual and innovative direction of development, careful attitude to the ecosystem, using own resources in production and development of the existing regional development potential;

- legality – which implies compliance with institutional norms and rules of mechanism of state regulation of the regional development within digitalization;

- subsidiarity – by adhering to functional vector of state management of the regional development through combination of interests and efforts at different levels of management with compliance with requirements of decentralization of the regional development management.

Adherence to the system of principles using the institutional approach methodology will contribute to increasing efficient transformation of mechanisms for public management of the regional development within digitalization.

3 RESULTS AND DISCUSSION

Differentiated regional development makes state management of the regional development more complex and requires using modern management mechanisms. State management of the regional development involves clear targeted actions using specially designed measures that act as the mechanism and provide the opportunity to obtain synergistic effect for the regional socio-economic development and the country as a whole. Digital transformation expands capabilities of the state regional management system and contributes to increased efficient public administration.

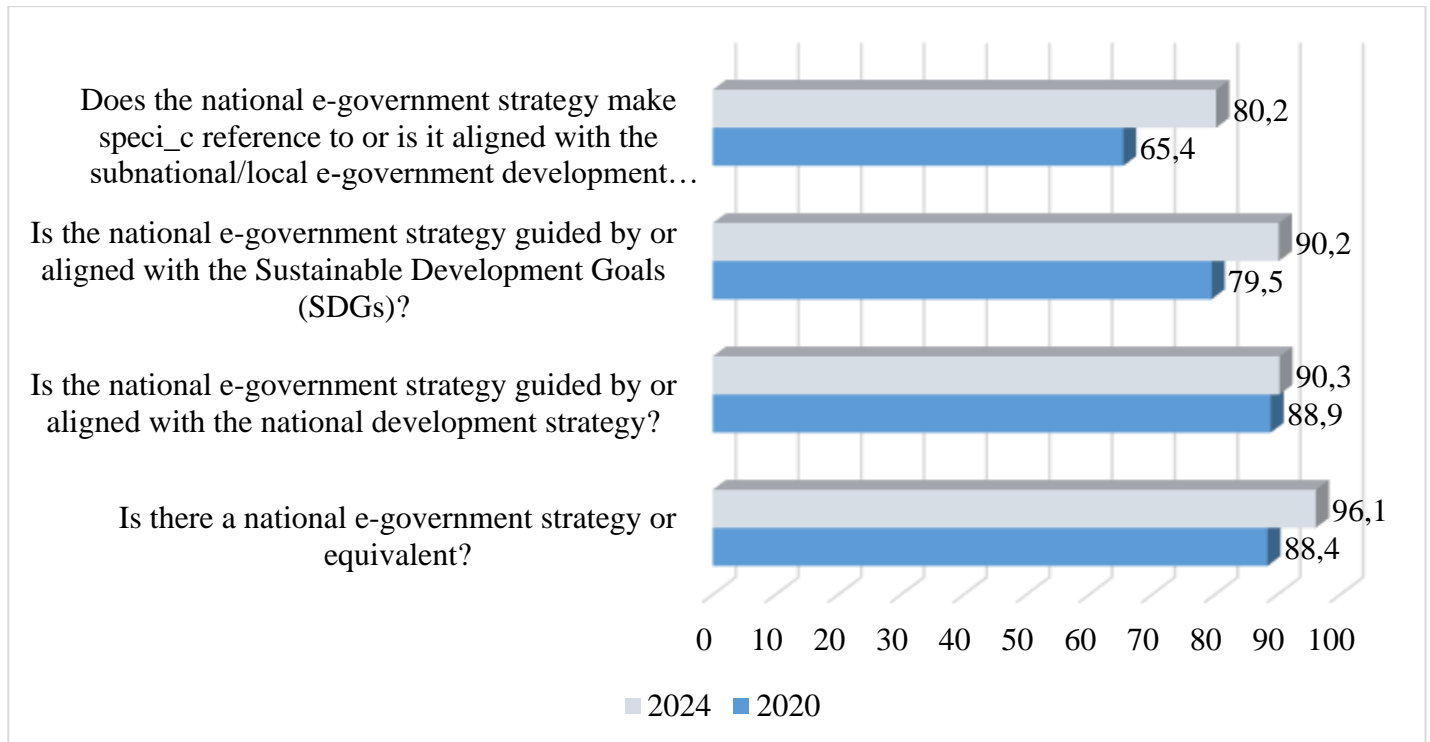
The mechanism of state management of the regional development must correspond to the direction of strategic social development to achieve sustainable development goals, considering impossible degradation and depletion of the natural ecosystem through implementation of new post-industrial models of the regional socio-economic growth, and, at the same time, considering possibilities of digitalization.

The basis of the mechanism of state management of the regional development in Ukraine is: the consistency of the European integration of the country; stability of the democratic political system and its institutions; modernization of the legal sphere and ensuring transparency of the legal system; respect for human rights and deepening culture of democracy, strengthening ironcladness of the country's development.

Priority tasks of transformation of public administration mechanisms were as follows: providing high-quality public services to citizens and businesses; developing professional and political neutrality of civil service; creating effective accountable public institutions; decentralizing public administration. Figure 1 presents results of

the survey of Member States on digital government strategies and policies, and urgency of implementing e-government in public administration mechanisms.

Figure 1 - Results of the survey of Member States strategies and policies of digital government, 2020 and 2024



Source: 2024 United Nations E-Government Survey

Transformation of mechanisms for state management of the regional development within digitalization is taking place in the following areas:

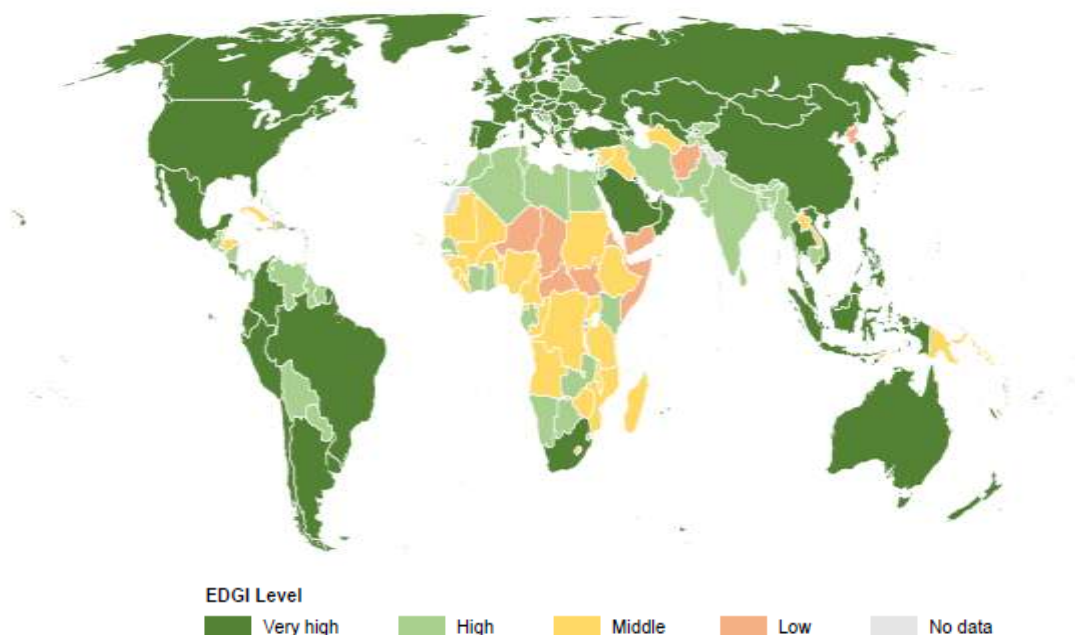
- first, transformation as the linear process, which involves creating conditions for: achieving specific goals of the regional development; providing necessary resources to achieve priority areas of the regional socio-economic development; building effective organizational structure of state and regional administration in compliance with decentralization principles; establishing norms and rules for regulating interaction of subjects with government structures at different levels; building the system of communications and coordination using digital technologies between various structures of state management of the regional development that are involved in the mechanism of state management of the regional development;

- second, regulating the complex of coordinated, balanced actions of various state institutions of mechanism of state management of the regional development using digital technologies and building information and communication system that ensures adaptation of all management participants in dynamic transformation of the mechanism, feedback between them, control and adaptation to changes due to crisis phenomena;

- third, implementation of transformational changes in the mechanism of state management of the regional development, considering formal and informal principles determined by the participant in implementation of the mechanism based on positive management experience to increase effective application of the mechanism.

Figure 2 presents the cartographic analysis of countries that support digital government strategies and policies.

Figure 2 - Cartographic analysis of the countries that support digital government strategies and policies, 2020 and 2024



Source: 2024 United Nations E-Government Survey

Transformation of the mechanism of state management of the regional development within digitalization includes following functionalities:

- legislative functionality, which consists in updating and modernizing legislative framework, developing and implementing innovative models of managerial decision-making based on highly professional competencies of officials regarding the regional development based on principles of decentralization and democracy, considering the opinion and participation of the population of the regions in decision-making, leveling individual influence of political officials;

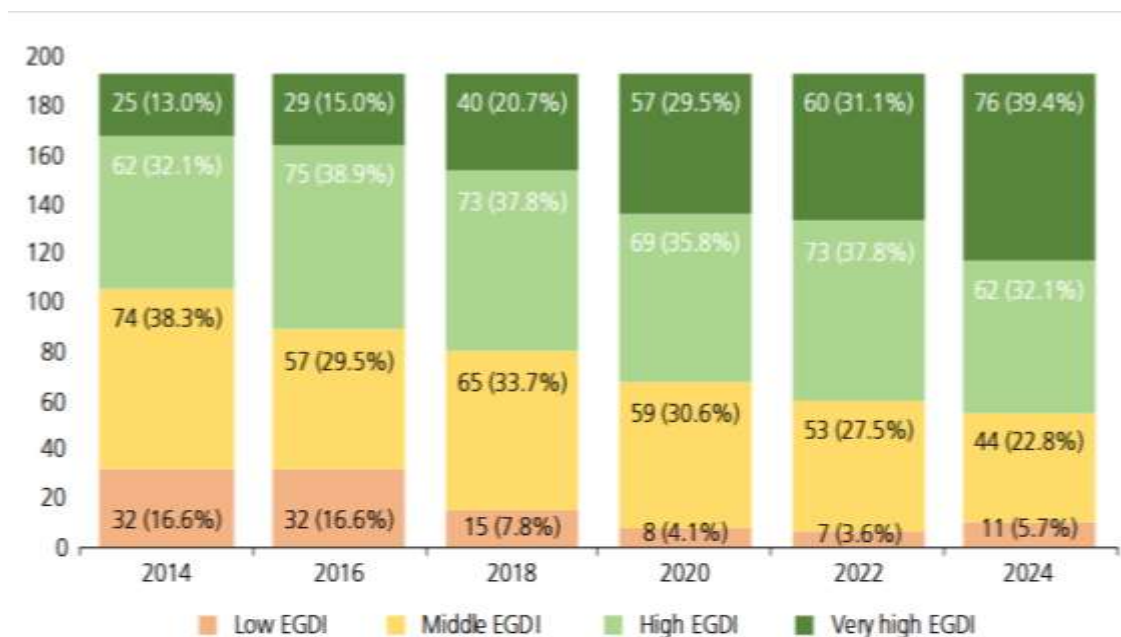
- financial and economic functionality, which involves considering features of financing and resource provision of strategies of the regional development, considering their specific capabilities and characteristics and using the participatory principle of distributing local budgets;

- organizational functionality - involves rethinking the role of human capital in achieving goals of the regional development goals; including: human-centric approach makes it possible to ensure intellectual and innovative direction of regional development, to identify and activate the latent potential of territories using digital technologies;

- globalization functionality, which involves ensuring the regional integration into the world economy by increasing their competitiveness and ensuring increase in the role of the national economy as a whole on the world stage.

Transformation functions of public administration mechanisms act to ensure direct and indirect management methods. Direct methods of action of management mechanism of the regional development: direct action of participants in the management mechanism through state orders, licensing, accreditation, quotas, subsidies, benefits, budget financing, etc. Indirect methods involve creation of certain organizational and economic conditions and incentives, which include lending, preferential taxation, depreciation methods, etc. Figure 3 analyzes dynamics of the number of countries and their percentage by groups of the E-Government Development Index. Results of the analysis prove rapid development of e-government and growth of corresponding components of the index.

Figure 3 - Number and percentage of countries in each group of the e-Government Development Index, 2014 to 2024



Source: 2024 United Nations E-Government Survey

As already noted, transformation of mechanisms for public management of the regional development is taking place within digitalization, which has the impact through:

- acceleration of economic activity, which involves providing Internet coverage to all remote areas, full computerization of the regional social infrastructure, improvement of the cloud services system, full digitalization of all registers and ensuring their interoperability, introduction of the full-scale system of electronic identification services, expansion of electronic payments, ensuring the cybersecurity system ;

- modernization of resource areas of the regional activity into highly productive, intellectually innovative areas, through implementation and orientation towards Industry 4.0, digital transformation of key areas of the regional production activity, stimulation of e-commerce, activation of cooperation and communications on digital platforms;

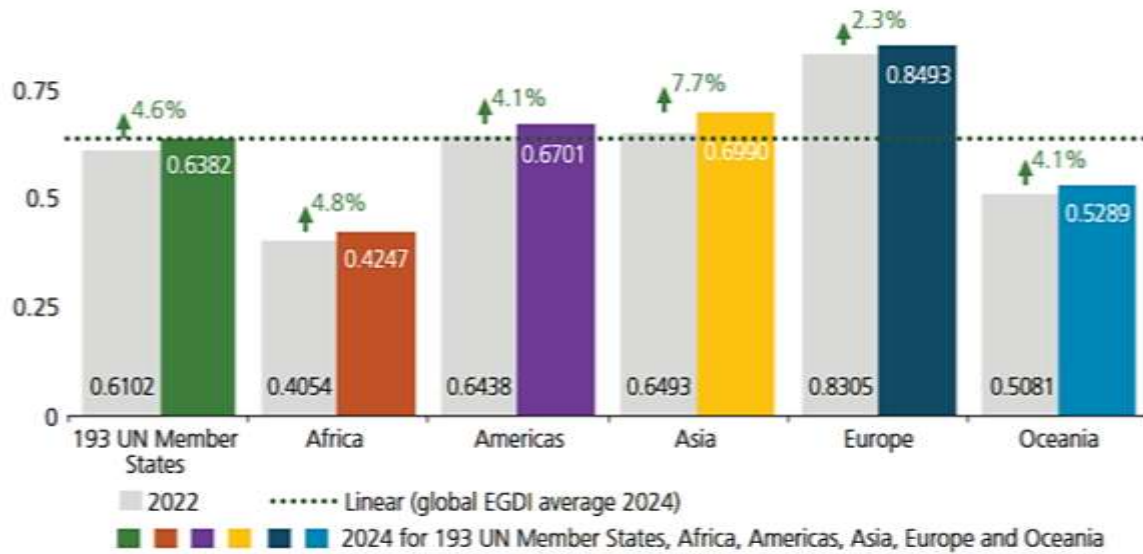
- expanding opportunities for receiving social services, through improving the electronic health care system, transforming education system, expanding online social services to receive high-quality services;

- expanding opportunities for self-realization of human capital, by spreading digital culture, development of personal and professional digital skills, expanding training for the labor market of specialists in digital professions,

- increasing efficiency of management mechanism, through synchronization of statistical and analytical data at all levels, as well as international exchange of information, ensuring transparency in formation and implementation of state and local budgets, improving the quality of state electronic services, improving operation of e-democracy tools, implementing digital rights, and integrating into the international digital infrastructure.

Figure 4 presents average global and regional E-Government Development Indices, demonstrating leading positions of European countries (0,8493). Oceania (0,5289) and Africa (0,4247) have the lowest rates.

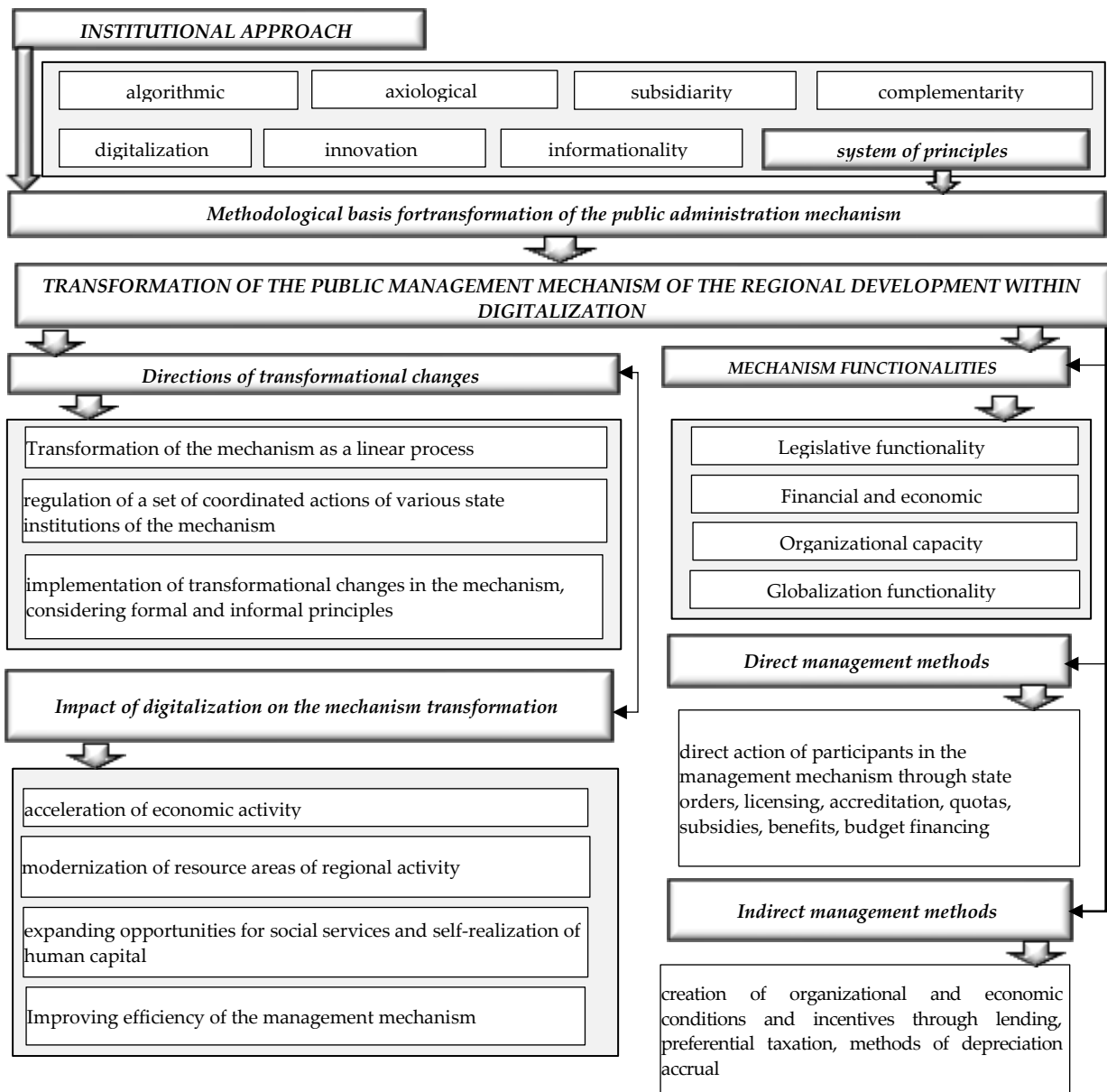
Figure 4 - Global and regional E-Government Development Index averages, 2022 and 2024



Source: 2024 United Nations E-Government Survey

Transformation of public administration mechanisms within digitalization will make it possible to establish relationships between all actors in regions by ensuring optimized information receipt and its use through digitalization of public administration mechanism of the regional development, as well as to identify latent opportunities for the regional development through digital activation of territorial development tools (Fig. 5).

Figure 5 - Transformation mechanism of state management of the regional development within digitalization
Source: 2024 United Nations E-Government Survey



This mechanism will contribute to identification of latent opportunities for the regional development through digital activation of territorial development tools. Information and communication technologies make it possible to increase the level of economic security of the regional development, considering modern trends in global development and impact of factors of various nature on social development.

CONCLUSION

Transformation of mechanisms of public administration of the regional development within digitalization should ensure coordinated, targeted, effective management of social processes in the state and regions through organizational and managerial influence on the regional sustainable development to ensure achievement of strategic goals and objectives of the regional development and the state as a whole.

The scientific novelty of the study lies in substantiating principles of transformation of mechanisms of state management of the regional development within digitalization using the methodological basis of the institutional approach, identifying systems of principles of transformation of the mechanism, outlining goals, objectives,

functionalities and directions of transformation of the mechanism as the linear process, regulating the complex of coordinated actions of various state institutions of the mechanism.

Further research is required to determine effective transformation of mechanisms for public administration of the regional development within digitalization at both the regional and state levels.

REFERENCES

- Alicandro, M., Zollini, S., Oxoli, D., Pascucci, N., Dominici, D., and Brescia, D. (2022). Design and implementation of an open-source web-gis to manage the public works of abruzzo region: an example towards the digitalization of the management process of public administrations. *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*. Volume 48. Issue XLVIII-4/W1-2022, 21–26. DOI: <https://doi.org/10.5194/isprs-archives-XLVIII-4-W1-2022-21-2022>.
- Department of Economic and Social Affairs. (2024). *2024 United Nations E-Government Survey*. New York. Retrieved from publicadministration.un.org/egovkb/en-us.
- Jakubek P., Guzonova V., Rudenko O., Zahurska-Antoniuk V., Filipova N. (2023) Management control in the system of ensuring the economic security of private *companies and public institutions*. *Ad Alta: Journal of interdisciplinary research*, 13(02), XXXV, 160-167. <https://doi.org/10.33543/j.130235.160167> <https://www.magnanimitas.cz/13-02-xxxv>
- Jakúbek, P., Guzonova, V., Rudenko, O., Latynin, M., Stepanenko, S. Public Management and Legal Support of Economic Modernization of Society. *Economic Affairs (New Delhi)*, 2023, 68(2), pp. 1263–1277
- Liannoi, Y., Khrapatyi, S., Hanzha, V., Kononova, D., Mykhailova, O. (2024). Public Management of Education and Science: Tendencies for Globalization, Digitalization, and Ukrainization. *European Project Management Journal*, Volume 14. Issue 2, 57-77. DOI: 10.56889/hycc4784.
- Marhasova, V., Rudenko, O., Popelo, O., Kosach, I., Sakun, O., Klymenko, T. (2024). Mechanisms of State Management of the Development of Digital Technologies in the National Security System. *Journal of the University of Zulia*. Volume 15(42), 389-406. DOI: <https://doi.org/10.46925/rdluz.42.22>.
- Mthuli, Syanda A. (2024). *Digitalisation of Employee Performance Evaluation to Advance Public Sector Human Resource Management*. *Digital Transformation in Public Sector Human Resource Management* (pp. 202-221).
- Nikiforov, P., Zhavoronok, A., Marych, M., Bak, N., Marusiak, N. (2022). State policy regulation conceptual principles of public-private partnership development. *Cuestiones Políticas*. Volume 40(73), 417-434. DOI: <https://doi.org/10.46398/cuestpol.4073.22>.
- Pasenko, N., Krupnyk, A., Chaika, A., Dulina, O., Svichynskyi, V. (2023). Digitalization of the Management Decisions of Public Authorities as a Tool for Improving the Social Efficiency of Management Activities. *Economics Affairs*. Volume 68, 831-837. DOI:10.46852/0424-2513.2c.2023.28.
- Popa, Ion, Ștefan, Simona Cătălina, Olariu, Ana Alexandra, Popa, Ștefan Cătălin. (2024). Integrating digitalization opportunities into innovative public organizations' management process. *Journal of Innovation & Knowledge*. Volume 9. Issue 4, 100564. <https://doi.org/10.1016/j.jik.2024.100564>.
- Popelo, O., Garafonova, O., Tulchynska, S., Derhaliuk, M., & Berezovskyi, D. (2021). Functions of public management of the regional development in the conditions of digital transformation of economy. *Amazonia Investiga*. Volume 10(43), 49-58. DOI: <https://doi.org/10.34069/AI/2021.43.07.5>.
- Salim, Kurnaz, Rodrigues, António, Sunar, Osman Nuri. (2024). *Digitalization in the Public Management: Turkish Public Institutions Example*. *Advancements in Socialized and Digital Media Communications* (pp. 135-150).
- Sánchez-Bayón, A., Sastre, F.J. & Sánchez, L.I. (2024). Public management of digitalization into the Spanish tourism services: a heterodox analysis. *Review of Managerial Science*. DOI: <https://doi.org/10.1007/s11846-024-00753-1>
- Shandryk, V., Radchenko, O., Radchenko, O., Koshelenko, A., Deinega, I. (2024). Digitalization as a Global Trend of Public Management Systems Modernization. *Studies in Systems, Decision and Control*. Volume 529, 3-16. DOI: https://doi.org/10.1007/978-3-031-57422-1_1.
- Voronov, O., Kurnosenko, L., Bezena, I., Petryshyn, N., Korniiievskyi, S., Ilychok, B. (2023). Public Administration of Planning for the Sustainable Development of the Region in the Context of Total Digitalization. *International Journal of Sustainable Development and Planning*. Volume 18. Issue 1, 61-67. |DOI: <https://doi.org/10.18280/ijstdp.180106>.
- Zhavoronok, A., Chub, A., Yakushko, I., Kotelevets, D., Lozychenko, O., Kupchyshyna, O. (2022). Regulatory Policy: Bibliometric Analysis Using the VOSviewer Program. *International Journal of Computer Science and Network Security*. Volume 22(1), 39-48. DOI: <https://doi.org/10.22937/IJCSNS.2022.22.1.7>



Esta licença permite que os usuários distribua, remixem, adaptem e desenvolvam o material em qualquer meio ou formato apenas para fins não comerciais, e somente desde que a atribuição seja dada ao criador.