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INNOVATIVE PRACTICES OF PUBLIC ADMINISTRATION: APPROACHES TO PUBLIC SECTOR MANAGEMENT IN THE ERA OF DIGITALIZATION AND OPEN GOVERNMENT

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ABSTRACT

The relevance of the study is due to the need for systematic analysis and implementation of the latest public administration practices that ensure the efficiency, transparency and adaptability of public institutions in the context of digitalization, globalization challenges and growing expectations of citizens. The research problem is the insufficient consideration of regional specifics and the effectiveness of renewable energy technologies implementation in the context of energy transformation. The purpose of the study is to systematize the latest public administration practices, identify the factors of their effectiveness, and develop an approach to innovation transfer, taking into account the challenges of digitalization and open government. The research results showed that modern public administration is formed at the intersection of technological innovations and humanistic values, where digitalization is not seen as an end in itself, but as a tool for enhancing transparency, inclusiveness, and trust in the state. A comparative analysis of international and national experience has shown that leading countries focus on creating integrated platform ecosystems and using artificial intelligence, while Ukraine emphasizes mobile services, paperless technologies, and active citizen engagement. Based on the clustering of EGDI dynamics in European countries (2010-2024), the author reveals the uneven development of digital governance and identifies four typical trajectories – from stable leaders to states that are in search of institutional prerequisites for digitalization. It is proved that the universal factors of success are political and institutional leadership, human and financial capacity, regulatory adaptability, cyber resilience, and civic participation. The importance of the humanistic dimension – the ability of innovative practices to reduce digital inequality, ensure social justice and maintain partnership between the state and citizens – is substantiated. Uneven development of digital public administration, limited inclusiveness, and insufficient institutional capacity to implement the latest management practices in the context of sustainable development and public trust have been identified. An effective model of public administration for the future will be based on the synergy of global technological trends and national contexts, combining innovation with a human-centered approach.

Keywords: *Digital Transformation, Innovative Practices, Administrative Management, EGDI, Cluster Analysis*

1. INTRODUCTION

The current stage of development of public administration is marked by a comprehensive transformation of the role of the state and local governments in ensuring social, economic and administrative stability. Globalization processes, the digitalization of society, the rapid development of information technology, and the growing expectations of citizens regarding the transparency and accountability of public institutions create new challenges for the public administration system [1]. At the same time, traditional models of administrative governance are often not flexible

enough, which limits the state's ability to respond quickly to changes in the economic and social environment.

In this regard, the study of the latest public administration practices, such as e-governance, open data, participatory decision-making mechanisms, results-based management, and the introduction of innovative approaches to the organizational culture of public institutions, is of particular importance [2]. Studying these practices allows not only to assess their impact on the efficiency and transparency of management processes, but also to develop adaptive management models that meet the requirements of modern society.

The particular relevance of this study lies in the need to systematically analyze and summarize international experience, identify key success factors for innovative approaches in public administration, and develop practical recommendations for state and local authorities, which will increase the effectiveness of management decisions, promote digital transformation, and strengthen public trust in government institutions [1].

The latest public administration practices are also gaining strategic importance in the context of socio-economic stability and crisis management. In the context of rapid changes, such as pandemics, economic shocks, or geopolitical challenges, the ability of public authorities to quickly implement innovative management approaches becomes critical to minimize risks and support sustainable development. Therefore, the study of such practices contributes to the formation of more resilient and adaptive governance models that can effectively respond to emergencies.

In addition, the integration of the latest public administration practices has a direct impact on the processes of democratization, citizen participation in decision-making, and social justice [3]. The introduction of transparent and innovative mechanisms of interaction between the government and society allows to increase public trust in state institutions, stimulates civic engagement and promotes the formation of an inclusive governance environment that meets modern standards of open governance.

The need for research is due to the limitations of traditional management models in the context of digitalization and open governance. It is carried out by analyzing international experience and evaluating the effectiveness of innovative practices in order to develop recommendations for improving the transparency and effectiveness of public administration.

This problem remains relevant, as the gap between the technological capabilities of digitalization and the institutional capacity of state bodies to implement them in a systematic and inclusive manner persists, reducing the effectiveness of management decisions and public trust. A thorough understanding of this issue is necessary for the formation of scientifically sound approaches to the transformation of public administration in line with contemporary social demands.

The hypothesis of the study is that the systematic implementation of innovative public administration practices based on digitalization, open data and participatory mechanisms will contribute to increasing the efficiency, transparency and social orientation of administrative processes. It is assumed that the combination of technological solutions with institutional reforms and the development of managerial competencies of civil servants will strengthen citizens' trust in state institutions. This, in turn, will ensure the formation of more sustainable and adaptive models of public administration in the conditions of digital transformation.

The purpose of the study is to analyze and systematize innovative public administration practices, identify key factors of their effectiveness, and develop a scientifically sound approach to the transfer of innovations in public administration, taking into account the current challenges of digitalization, open government, and increased transparency of administrative processes.

2. LITERATURE REVIEW

In recent years, there has been considerable interest in the latest practices of public administration, in particular in the context of digital transformation, the introduction of artificial intelligence, and active citizen participation. These changes are driven by the need for the public sector to adapt to modern challenges, such as globalization, technological innovation, and changes in public expectations [4]. Recent studies show that the integration of digital technologies and the latest management practices significantly

increases the efficiency of government agencies and improves interaction with citizens [5,6].

Savitska [7] emphasizes that the digitalization of public administration is one of the key tools for innovative public administration practices. Digitalization is seen as a technical process of introducing information and communication technologies and a strategic mechanism for improving the efficiency of government, facilitating public access to public services and optimizing public spending [8,9]. Researchers note that digital transformation contributes to the formation of a new model of public administration focused on meeting the daily needs of society and increasing the transparency of decision-making [10,11]. The active use of digital technologies in public services is seen as an effective tool for solving socio-economic problems and at the same time an important factor in the modernization of public administration [12,13].

The digital transformation of public administration has become the main focus of reforms in many countries. For example, Norway is implementing a public sector digitalization strategy that involves modernizing administrative processes and simplifying access to public services, which increases the level of transparency and accountability of the authorities [14,15]. In the United Kingdom, the government uses artificial intelligence to automate routine tasks, which can significantly save resources and speed up decision-making processes, but there are ethical and technical challenges associated with the use of AI [16,17].

Citizen participation in decision-making is another critical aspect of modern public administration. Digital platforms for citizen engagement contribute to increased democratic participation and create conditions for more transparent governance [18,19]. Studies also note that crises, such as the COVID-19 pandemic, stimulate the development of innovative channels of communication between the state and society, but at the same time highlight the problem of the digital divide, which limits equal access to such resources for citizens [20,21].

The latest practices of public administration also include the development of intersectoral cooperation, involvement of the private sector and civil society organizations in management and service delivery processes [22,23]. This creates the preconditions for the effective functioning of the New Public Governance (further – NPG) model, which is focused on creating public value and integrating various stakeholders into the decision-making process [24].

Modern research pays special attention to the issue of adapting management practices to digital and technological transformations in the context of sustainable development [25]. Scientists note that the successful integration of innovative practices requires not only technical solutions but also a systematic approach to strategic planning, training, and ensuring the ethical use of technology [26,27].

Researchers emphasize the importance of evaluating the effectiveness of new public administration practices [28]. Analytical reviews point to the need to develop evaluation criteria that take into account both economic and social aspects, as well as the impact on the accountability and transparency of public authorities [29]. This allows for the creation of more adaptive and flexible governance models that can respond to modern challenges and contribute to the sustainable development of society [30].

The study by Petrukha et al. [31] substantiates that the transformation of public finances in times of crisis, with an emphasis on their social functions, through the renewal of social protection, improving the quality of life, overcoming demographic challenges, fighting poverty and discrimination, is key to ensuring financial sustainability and social “health” of the system.

Ilychok et al. [32] argue that demographic security is an important prerequisite for socio-economic stability, proposing a methodology for analyzing key indicators and identifying urgent management mechanisms to support society in the context of a military crisis and post-conflict recovery.

Taking into account the publications considered, it is necessary to identify effective innovative public administration practices aimed at increasing transparency, accountability and digital maturity of the public sector, as well as analyze the impact of the integration of digital technologies, open data and participatory democracy mechanisms on the adaptability and effectiveness of

management processes. It is important to: identify significant success factors for the implementation of such practices, in particular political leadership, human resources, financial sustainability, regulatory conditions and cyber resilience; assess obstacles and challenges in application; study the elements of adapting international experience to the formation of inclusive, humanistically oriented models of public administration in the context of digitalization and globalization transformations.

3. RESEARCH METHODS

The methodological basis of the study is a combination of systemic, comparative and empirical-statistical approaches, which ensures a comprehensive analysis of the latest public administration practices. To conduct an empirical analysis of scientific publications on the research problem, the Google Scholar, Scopus and Web of Science databases were used. A systematic approach was used to analyze digitalization, institutional innovations, and social mechanisms of participation as interrelated elements of a single model of governance. To identify trends and patterns of development, a comparative analysis of international experience in implementing innovative practices in the field of public administration, in particular in the countries of the European Union, was chosen. In the empirical part of the study, the main tool was a cluster analysis of the dynamics of the E-Government Development Index (EGDI) for 2010-2024, which allowed to identify groups of countries with different trajectories of digital transformation. The United Nations statistics were used to assess the level of availability of online services, development of telecommunications infrastructure and human capital by analyzing the EGDI indicator for 44 European countries. In addition, the study systematized modern approaches to digital governance, open data, artificial intelligence, and participatory democracy mechanisms by analyzing scientific publications, reports of international organizations (UN, EU, OECD), and Ukrainian regulations. This made it possible to identify the key factors of the effectiveness of innovative practices, such as political and institutional leadership, human resources, financial sustainability, and regulatory support. Thus, the chosen methodology combines quantitative and qualitative methods, which ensures multidimensional analysis and increases the reliability of the results.

Overall, the study is based on a comparative-analytical mixed-methods design that combines quantitative analysis of EGDI dynamics and clustering of European countries with qualitative systematic generalization of international and national experience. This approach, tested in interdisciplinary research on public administration and digital governance, provides a comprehensive assessment of institutional, technological, and social drivers of innovation.

4. RESULTS

The modern development of public administration is increasingly determined by the introduction of innovative practices based on a combination of digital technologies, openness, inclusiveness and focus on the needs of citizens. In the context of globalization and rapid technological change, society expects public authorities not only to be efficient and transparent, but also to be able to adapt to new challenges by developing flexible, accessible and sustainable governance models. In this context, the systematization of international and national experience of innovative public administration practices is of particular importance, as it allows us to identify not only the leading trends in digital transformation, but also to highlight the features that form a unique trajectory of development of management decisions in Ukraine (Table 1).

Table 1: Systematization of Modern Innovative Practices of Public Administration

Area	International experience	Ukrainian experience
Digital services and client-centeredness	The principle of "digital by default", electronic identity (eID), "once-only" approach, omnichannel services, paperless processes	Diia mobile application, digital passports, online public services, one-stop shops
Data-driven governance	Data exchange platforms, open registries, real-time analytics, interoperability of government systems	Open data portal, integration of state registries, government dashboards
Automation and artificial	Use of RPA, chatbots, algorithms for policy	Automated social support services,

intelligence	forecasting, AI ethics audit	consultation chatbots, electronic queues
Open governance and participatory democracy	E-petitions, e-consultations, participatory budgets, policy labs	E-petitions, participatory budgeting in cities, online discussion of regulations
Regulatory and organizational innovations	Cloud-first, GovTech ecosystems, innovation sandboxes, agile methodologies in the public sector	GovTech programs, implementation of agile IT project management methods, regulatory initiatives
Cyber resilience and trust	Zero-trust architecture, SOC/NOC, "privacy by design", transparency in incident reporting	Cybersecurity of state registers, multi-factor authentication, state monitoring centers
Inclusiveness and accessibility	Compliance with WCAG standards, digital intermediaries, digital skills programs for the elderly	Adaptation of services for people with disabilities, digital education, offline alternatives for remote communities
Sustainable development and green practices	Energy-efficient data centers, eco-friendly IT procurement standards, digital environmental monitoring systems	Use of green IT solutions, digital monitoring of environmental indicators, smart environmental initiatives

Source: Loukis [33], EU [34], EC [35], Bobrovska et al. [36], Omelyanenko & Fantaiev [37], Illiashenko & Myronenko [38]

A comparative analysis of innovative practices shows that international approaches are focused on creating large-scale platform ecosystems, data integration, and the use of artificial intelligence for strategic decision-making. In Ukraine, on the other hand, the emphasis is on the rapid deployment of digital mobile services, the development of paperless technologies, and the active involvement of citizens through e-democracy tools. Both levels demonstrate a common priority: ensuring transparency, focusing on the needs of citizens, and increasing trust in the state. At the same time, the national model needs to be further strengthened in the areas of cyber resilience, integration of registries, institutional coordination, and implementation of participatory democracy and environmentally friendly digital solutions. Thus, the synergy of international experience and Ukrainian practices can become the basis for the formation of an innovative model of public administration that combines technological efficiency, humanistic values, and inclusiveness.

To confirm the trends in the successful implementation of innovative public administration practices, let us consider the dynamics of the E-Government Development Index (further – EGDI) for selected countries for 2016-2024 (the index is published every two years) (Figure 1).

The EGDI can be viewed as an integrated index designed to reflect the balance between technological support, the service function of the state, and the intellectual and human resources potential of society. The data presented here demonstrate the evolution of these parameters over time, reflect the global trend of EGDI increase from 2016 to 2024, and strengthen the argumentation about the impact of institutional and technological innovations (proactive services, seamless data, interoperability, digital identities) on the effectiveness of public administration.

The cluster analysis of the EGDI dynamics in the European area (44 countries) for 2010-2024 made it possible to identify groups of countries with similar trajectories of digital governance development. It was found that the optimal number of clusters varies between three and four, reflecting both general patterns and the specifics of individual countries.

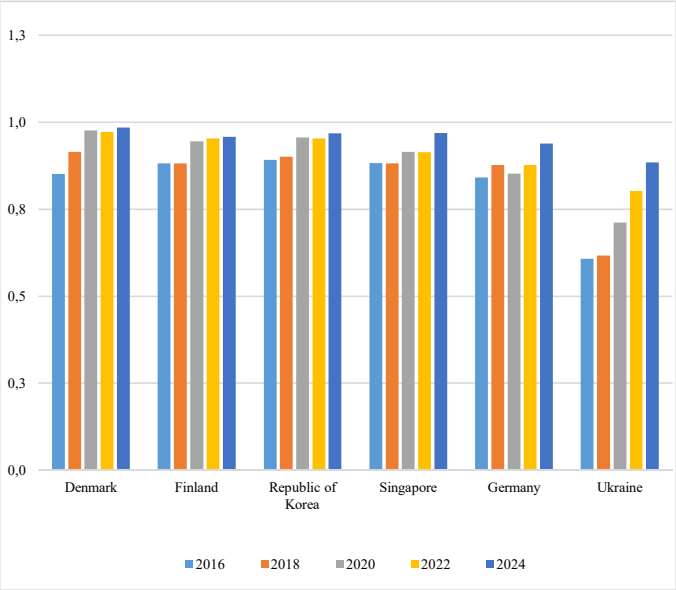

Figure 1: EGDI in Selected Countries (2016-2024)
Source: UN [39], WBD [40]
Notes: The EGDI is calculated every two years; therefore, for the period 2015-2024, the values for 2016, 2018, 2020, 2022, 2024 are given

Table 2: Cluster Division of European Countries by EGDI Development Indicators (2010-2024)

Cluster	Characteristics	Countries
1	High and stable level of EGDI	Denmark, Sweden, Norway, the Netherlands, the United Kingdom, Estonia, Finland, Germany, France, Switzerland, Austria
2	Medium level, stable growth	Lithuania, Latvia, Slovenia, Czech Republic, Spain, Italy, Greece, Croatia, Poland, Portugal, Hungary, Slovakia
3	Lower level, need for institutional support	Albania, Bosnia and Herzegovina, Serbia, Montenegro, Belarus, North Macedonia, Ukraine, Armenia, Georgia
4	Small states with unstable trajectories	Andorra, Luxembourg, Liechtenstein, San Marino, Monaco

Source: compiled by the authors

The results obtained show that the level of e-governance development in Europe is heterogeneous and reflects both the historical traditions of public administration and the ability of countries to integrate innovative digital solutions into the public sphere. The clustering has demonstrated the presence of a stable core of digital leaders, countries with a steady increase in indicators, as well as a group of countries for which the key challenge remains the formation of

institutional and technological preconditions. The identification of a separate cluster of small countries with unstable EGDI dynamics emphasizes the importance of targeted support and international partnerships to overcome digital asymmetries in the region.

The identified EGDI growth patterns indicate that countries are moving towards digital maturity in different ways, combining unique strategic emphases with global trends. This creates an opportunity not only to quantify the dynamics but also to qualitatively outline the characteristic development models.

5. DISCUSSION

The results obtained open up a wide field for scientific understanding of the latest practices of public administration in the context of the growing complexity and turbulence of the global environment. The identified trends indicate that the digital transformation of the public sector is not a one-dimensional process of technology implementation, but is formed as a complex socio-technical system that combines institutional mechanisms, political priorities, cultural characteristics and needs of citizens. This is in line with the concepts of smart governance and open government, which emphasize the need to harmonize innovative technologies with humanistic values.

It is important to emphasize that the effectiveness of innovative management practices is determined not so much by the number of technological tools that are integrated into the work of state and municipal institutions as by their ability to create long-term social effects. The experience of the leading EU and North American countries shows that strategic success is ensured by institutional sustainability combined with flexibility in decision-making, focus on public needs, and constant dialogue with citizens [41]. Thus, modern public administration reforms should be viewed not as technocratic experiments, but as social co-creation processes, where trust between the state and citizens is a key factor.

A comparison of international experience with Ukrainian practices deserves special attention. In many countries leading the digital transformation, the development of interoperable data platforms, the use of blockchain, cloud services, and artificial intelligence allow for a high level of transparency, reduced transaction costs, and increased predictability of political decisions [42]. In Ukraine, significant progress is primarily due to the development of electronic services for the population, which was a response to the public's need for affordable, fast, and simple solutions [43]. At the same time, the rapid adoption of mobile applications and digital platforms (in particular, in the areas of citizen identification, e-democracy, and administrative services) demonstrates a strong customer focus, but still requires proper integration with the institutional and regulatory systems.

The cluster analysis of European countries according to EGDI indicators (2010-2024) confirmed a steady differentiation in the level of digital maturity. The leading cluster demonstrates systematic strategic investments in digital infrastructure, accompanied by a high level of human resources and social legitimacy of innovations. The second cluster is characterized by a focus on incremental reforms that gradually reduce the digital divide. The third cluster, which includes countries with a low EGDI, is at increased risk of institutional marginalization, as their capabilities are limited by both financial, economic, and organizational factors. Finally, the fourth cluster – small countries with unstable dynamics – shows a significant impact of external shocks and political volatility on the ability to digitalize.

Summarizing international and national experience, there can be identified a number of universal success factors that go far beyond technical parameters. First, political and institutional leadership creates a long-term vision and guarantees the sustainability of strategies, which is especially important in times of crisis. Second, human resources are a key condition for the ability of public institutions to innovate. Thirdly, financial sustainability ensures that digital projects can be scaled up and overcome the “pilot initiative trap” Fourth, the legal and regulatory environment must be both flexible and predictable so that regulation does not hinder innovation. Fifth, the level of cyber resilience and data protection directly determines the legitimacy of digital services. Finally, the active involvement of citizens and the development of participatory practices transform the population from passive users to co-creators of public policies.

The humanistic dimension of innovations in public administration is gaining particular importance in the current discourse. The issues of

digital inclusion, protection of human rights in cyberspace, prevention of digital inequality, and strengthening civic engagement are coming to the fore. This suggests that the effectiveness of innovative practices should be measured not only by economic or technological criteria, but also by the level of their contribution to the development of democracy, social justice, and trust in the state.

Thus, the discussion confirms that modern approaches to public administration cannot be reduced to digital tools or administrative reforms alone. It is about forming a new model of governance that integrates global technological trends, national cultural and institutional contexts, and humanistic values. Only the synergy of these dimensions can ensure a successful transition to the "government of the future" – open, sustainable, inclusive, and citizen-oriented as an active partner of the state.

The results of the analysis show that the effectiveness of the implementation of innovative public administration practices is largely determined by a set of interrelated factors that cover both organizational and socio-technological dimensions. First and foremost, political and institutional leadership is important to ensure strategic coherence of reforms and create a long-term vision of digital transformation. The experience of leading countries shows that a clear national strategy and support for its implementation at the level of the state's top leadership create the basis for the targeted development of innovations in public administration.

An equally important factor is building human resources, which includes increasing the digital literacy of civil servants, developing new competencies in data management, service design, and policy analysis. Systematic training and involvement of new professional groups (e.g., data analysts, product managers, cybersecurity experts) allow for the integration of innovations in a comprehensive manner rather than in a fragmented manner.

Financial and resource stability is another key factor, as sustainable financing mechanisms for digital transformation projects allow not only to launch pilot initiatives but also to scale them up, ensuring sustainable results. Successful practices show that it is advisable to move from short-term grant programs to a system of multi-year budgeting focused on performance and cost transparency.

The legal and regulatory environment is an important factor determining the quality of social development, as it is designed to strike a balance between the desire for innovation, the need for legal certainty, and the need to protect civil rights. The use of flexible regulatory tools, including sandbox formats for testing new technologies, creates a safe space for finding optimal management models that are focused on the needs of individuals and communities [44].

Given the growing dependence of state and municipal authorities on digital solutions, the level of cyber resilience and public trust is a determining factor [45]. Building reliable cybersecurity systems, transparent reporting of incidents, and adherence to the principles of privacy by design form the basis for maintaining public trust in digital services [46].

No less important is the factor of civic engagement and inclusiveness. The latest practices are only successful if they meet the real needs of users, are accessible to vulnerable groups, and take into account the principles of social justice. Thus, active communication between the state and society, the use of e-democracy tools and policy co-creation mechanisms are important prerequisites for innovative development (Table 3).

Table 3: Factors of Efficiency of Innovations in Public and Municipal Administration: International and National Levels

Factor	Description of the essence	Expected result	Examples of implementation
Political support and strategic vision	State digitalization policy, support for reforms at the government and local government levels.	Sustainability of reforms, public trust.	Estonia - E-Estonia concept, strategic support of the digital state by the government since the 1990s.
Regulatory and legal support	Updating legislation on ICT, e-governance, and data protection.	Legal certainty, transparency of processes.	Ukraine - adoption of the laws "On Electronic Trust Services" (2024) and "On Public Electronic Registers" (2022).
Financing and investment	Budgetary resources, international grants, private sector participation.	Project sustainability, technology development.	South Korea - large-scale public investment in the Digital New Deal program (2020-2025).
Technological infrastructure	Digital platforms, data centers, cybersecurity, electronic services.	Management efficiency, cybersecurity.	Estonia - X-Road system for data exchange between government agencies.
Human resources and training	Development of digital competencies of employees and the public.	Increasing professional efficiency.	Ukraine - educational platform "Diia. Digital Education" educational platform (starting in 2020).
Public participation and open data	Use of e-democracy, open data, and citizen engagement.	Transparency, trust, social inclusion.	Poland - MamPrawoWiedzieć platform for monitoring the activities of MPs.
International cooperation and exchange of experience	Use of EU, OECD, and UN practices, adaptation to national conditions.	Global integration, increasing competitiveness	Ukraine and the EU have joint e-Governance Academy (Estonia) programs on e-governance.

Source: MEACE [47], ITU [48], Law of Ukraine [49,50], OECD [51], Cheong & Cho [52], Bojarski & Wiaderek [53], EEAS [54]

The results obtained show that the success of innovations in state and municipal administration is determined not so much by the availability of individual technological solutions as by a combination of political will, human and financial capacity, adaptive regulatory environment, cybersecurity, and social inclusion. It is their interaction that ensures the sustainability and effectiveness of governance transformations, forming a new model of public administration focused on human needs and social development [55].

The systematization of international and national experience shows that the key factors for the successful implementation of the latest management practices are universal, but their implementation depends on specific political, economic and cultural conditions. Estonia is an example of a complete digital state due to its long-term strategy and developed technological infrastructure [56]. Ukraine demonstrates rapid dynamics in the field of regulatory support and digital education [57]. South Korea and Poland show the effectiveness of combining public investment and active public participation [58]. This confirms that the success of the latest management approaches is determined not only by the availability of technology, but also by political will, institutional sustainability, and public engagement.

In today's context of public administration transformation and digitalization of society, the effectiveness and sustainability of public institutions are largely determined by the ability to adapt and integrate the latest public administration practices [59]. In order to improve the quality of public services, optimize management processes, and ensure the transparency and accountability of public authorities, it is necessary to use a systematic approach to innovation that takes into account the specifics of different administrative contexts, cultural and organizational factors, as well as the needs of citizens and the business environment (Figure 2).

Figure 2: Sequence of Innovation Transfer in Public Administration
Source: compiled by the authors

Transfer of innovations as a consistent and systematic process will allow public institutions not only to improve the efficiency of management, but also to ensure their sustainability in the long run [60]. The synergy between analysis, training, technological innovation, and active public engagement creates conditions for the formation of modern, transparent, and adaptive public administration that can quickly respond to societal challenges and global transformations [61].

Thus, an analysis of modern public administration practices shows that the success of their implementation depends on the systemic interaction of political will, human resources, financial sustainability, and public trust. It is important that the universal factors identified in the study are interdisciplinary in nature and combine managerial, legal, social and technological dimensions. This allows for a comprehensive approach to building institutional capacity that is focused on people and their needs. Therefore, further research should focus on the development of integrated models of public administration that strike a balance between the effectiveness of public institutions and the principles of humanism, inclusiveness, and democratic participation of citizens.

From the perspective of the research objectives, the results demonstrate that the implementation of innovative public administration practices significantly increases the efficiency and transparency of management processes, and also contributes to the formation of more adaptive management models capable of responding to the challenges of digitalization and globalization. Analysis of international and national experience confirmed that the combination of digital technologies, open data, participatory mechanisms and human potential creates conditions for the development of inclusive, socially oriented management that meets the expectations of citizens. Thus, the achievement of the research goal — systematization of innovative practices and identification of key factors of their effectiveness — is confirmed by empirical data and analysis of international examples, which opens up prospects for the adaptation and transfer of successful models to the Ukrainian public sector, ensuring the harmonization of technological efficiency and humanistic management values.

6. CONCLUSION

This study has shown that the latest public administration practices are formed at the intersection of digitalization, openness, and increased public participation in decision-making. The cluster analysis of the dynamics of the E-Government Development Index (2010-2024) showed uneven development of European countries: some countries have reached a high level of digital governance with a focus on the integration of artificial intelligence and open data, while others remain at the stage of basic implementation of electronic services. The systematization of international experience has identified the key success factors: political leadership, stable funding, human resources, and regulatory and legal coherence.

The findings confirm that the effectiveness of the latest practices lies not only in the use of technology, but also in the creation of inclusive, socially oriented governance models that strengthen citizens' trust in the state. For Ukraine, the proposed approaches can serve as a guide in developing public administration strategies focused on sustainability, transparency, and interaction with citizens.

Given the results obtained, it is advisable to implement a comprehensive digital governance strategy in Ukraine, including: development of a

national open data infrastructure; creation of competence centers to train civil servants to work with innovative tools; strengthening cybersecurity and personal data protection; introduction of mechanisms for regular monitoring and evaluation of the effectiveness of the latest practices using international indices (in particular, EGDI); expansion of public participation platforms in decision-making. Implementation of these measures will contribute not only to the technological development of public administration, but also to increasing public trust in institutions, transparency of public policy, and Ukraine's integration into the European space of sustainable governance.

The article successfully achieved the initial goals, systematized modern innovative public administration practices and identified key factors of their effectiveness (digitalization, citizen participation, cyber resilience and strategic leadership), which is consistent with modern international research in this area. At the same time, despite the convincing empirical confirmation of trends through the EGDI cluster analysis and comparison of international and national experience, the need for a deeper integrated analysis is noted, including socio-cultural and organizational aspects of the implementation of innovations, as well as the development of practical adaptive models for Ukraine. Thus, the study creates a valuable basis for the formation of humanistically oriented, inclusive and transparent models of public administration, while indicating the prospects for further improvement of analytical and applied approaches.

The scientific contribution of the study is the identification of important factors of the effectiveness of modern innovative public administration practices and the justification of mechanisms for the transfer of successful models into the national context, which contributes to increasing the transparency, inclusiveness, and adaptability of the public sector.

REFERENCES:

[1] Siswadhi F, Widyastuti T, Sawitri NN, Hadita H, Yuliviona R. Transformational leadership in e-government: Fostering innovation and efficiency in public administration. *International Journal of Social and Human.* 2025;2(1):55–66. https://doi.org/10.59613/5ebaf708

[2] Tejedo-Romero F, Araujo JFFE, Tejada Á, Ramírez Y. E-government mechanisms to enhance the participation of citizens and society: Exploratory analysis through the dimension of municipalities. *Technology in Society.* 2022;70:101978. https://doi.org/10.1016/j.techsoc.2022.101978

[3] Rizk A, Lindgren I. Automated decision-making in public administration: Changing the decision space between public officials and citizens. *Government Information Quarterly.* 2025;42(3):102061. https://doi.org/10.1016/j.giq.2025.102061

[4] Popa I, Ștefan SC, Olariu AA, Popa ȘC. Integrating digitalization opportunities into innovative public organizations' management process. *Journal of Innovation & Knowledge.* 2024;9(4):100564. https://doi.org/10.1016/j.jik.2024.100564

[5] Yang C, Gu M, Albitar K. Government in the digital age: Exploring the impact of digital transformation on governmental efficiency. *Technological Forecasting and Social Change.* 2024;208:123722. https://doi.org/10.1016/j.techfore.2024.123722

[6] Aryatama S, Miswan M, Fahriyah F, Pribadi T, Suacana IWG. Enhancing governance efficiency through digital transformation in public services: Lessons from global practices. *Global International Journal of Innovative Research*. 2024;2(5):1019–27. https://doi.org/10.59613/global.v2i5.171

[7] Savitska V. Digitalisation of the public administration system in the context of economic and legal areas of European integration. *Baltic Journal of Economic Studies.* 2025;11(1):270–80. https://doi.org/10.30525/2256-0742/2025-11-1-270-280

[8] OECD. *The OECD digital government policy framework: Six dimensions of a digital government.* Paris: OECD Publishing; 2020. http://dx.doi.org/10.1787/f64fed2a-en

[9] Mettler T, Miscione G, Jacobs CD, Guenduez AA. Same same but different: How policies frame societal-level digital transformation. *Government Information Quarterly.* 2024;41(2):101932. https://doi.org/10.1016/j.giq.2024.101932

[10] Kitsios F, Kamariotou M, Mavromatis A. Drivers and outcomes of digital transformation: The case of public sector services. *Information*. 2023;14(1):43. https://doi.org/10.3390/info14010043

[11] Wijaya S, Alfitri, Thamrin MH, Salya DH. The impact of electronic government policy on transparency and accountability in public services. *International Journal of Science and Society.* 2024;6(2):411–21. https://doi.org/10.54783/ijsoc.v6i2.1157

[12] Ziyadin S, Malayev K, Fernández-Plazaola I, Ismail G, Beyzhanova A. Digital modernization of the system of public administration: Prerogatives and barriers. *E3S Web of Conferences.* 2020;159:05003. https://doi.org/10.1051/e3sconf/202015905003

[13] Pasenko N. Current trends in digital transformation of public administration. *Scientific Bulletin of Mukachevo State University. Series Economics.* 2022;9(2):46–51. https://doi.org/10.52566/msu-econ.9(2).2022.46-51

[14] OECD. *The digital transformation of Norway's public sector.* Paris: OECD Publishing; 2024. https://doi.org/10.1787/1620e542-en

[15] Guenduez AA, Demircioglu MA, Mueller EM, Cinar E. Digital innovation strategies in the public sector. *Research Policy*. 2025;54(8):105274. https://doi.org/10.1016/j.respol.2025.105274

[16] Androniceanu A, Georgescu I. Public administration digitalization and government effectiveness in EU countries. *Central European Public Administration Review*. 2023;21(1):7–30. https://doi.org/10.17573/cepar.2023.1.01

[17] Zuiderwijk A, Chen Y-C, Salem F. Implications of the use of artificial intelligence in public governance: A systematic literature review and a research agenda. *Government Information Quarterly.* 2021;38(3):101577. https://doi.org/10.1016/j.giq.2021.101577

[18] Shin B, Floch J, Rask M, Bæck P, Edgar C, Berditchevskaia A, et al. A systematic analysis of digital tools for citizen participation. *Government Information Quarterly.* 2024;41(3):101954. https://doi.org/10.1016/j.giq.2024.101954

[19] Bi R. Digital democracy: Enhancing democratic participation and political transparency through digital technologies. *Lecture Notes in Education Psychology and Public Media*. 2024;58(1):285–91. https://doi.org/10.54254/2753-7048/58/20241718

[20] Amankwah-Amoah J, Khan Z, Wood G, Knight G. COVID-19 and digitalization: The great acceleration. *Journal of Business Research*. 2021;136:602–11. https://doi.org/10.1016/j.jbusres.2021.08.011

[21] Thomas J. Digital transformation in public administration: Embracing the future. *Journal of Research in International Business and Management.* 2024;11(1). https://doi.org/10.14303/jribm.2024.002

[22] Qaedi A, Nugroho BY. A literature review: Cross-sector collaboration arrangements to deliver public services and goods. *Technium Social Sciences Journal.* 2023;40:1–10. https://doi.org/10.47577/tssj.v40i1.8342

[23] Almazrouei F, Elias Sarker A, Zervopoulos P, Yousaf S. Organizational structure, agility, and public value-driven innovation performance in the UAE public services. *Heliyon*. 2024;10(13):e33261. https://doi.org/10.1016/j.heliyon.2024.e33261

[24] Krogh AH, Triantafillou P. Developing new public governance as a public management reform model. *Public Management Review*. 2024;1–17. https://doi.org/10.1080/14719037.2024.2313539

[25] Żuchowski I, Sharlovych Z, Mandych O. Digital transformation and technologies for sustainable development all branches of modern education, science and practice [conference proceedings]. *International Scientific and Practical Conference*, January 26, 2023. http://dx.doi.org/10.58246/JVXL4879

[26] Osemeike GE, Courage I, Patience OP, Tochukwu II. Strategic approaches for successful digital transformation in project management across industries. *International Journal of Frontiers in Engineering and Technology Research.* 2024;7(1):1–11. https://doi.org/10.53294/ijfetr.2024.7.1.0037

[27] Buonocore F, Annosi MC, de Gennaro D, Riemma F. Digital transformation and social change: Leadership strategies for responsible innovation. *Journal of Engineering and Technology Management*. 2024;74:101843. https://doi.org/10.1016/j.jengtecman.2024.101843

[28] Gębczyńska A, Brajer-Marczak R. Review of selected performance measurement models used in public administration. *Administrative Sciences*. 2020;10(4):99. https://doi.org/10.3390/admsci10040099

[29] OECD. *Applying evaluation criteria thoughtfully.* Paris: OECD Publishing; 2021a. https://doi.org/10.1787/543e84ed-en

[30] Mamyrbaeva Z, Ketners K, Zheenalieva A, Sheripov N, Hudyma O. Public administration effectiveness in crises and emergencies: Experiences and lessons from different countries. *CERIDAP*. 2025 Apr 7. https://doi.org/10.13130/2723-9195/2025-2-5

[31] Petrukha N, Petrukha S, Alekseienko N, Kushneruk O, Mazur A. Social imperatives of public finance: War adaptation and principles of post-war recovery. *Financial and Credit Activity: Problems of Theory and Practice.* 2023;3(50):358–71. https://doi.org/10.55643/fcaptp.3.50.2023.4031

[32] Ilychok B, Karkovska V, Dziurakh Y, Marмulyak A. Changing trends in Ukraine's demographic security as a key indicator of socioeconomic stability. *Financial and Credit Activity: Problems of Theory and Practice*. 2023;2(49):350–60. https://doi.org/10.55643/fcaptp.2.49.2023.4020

[33] Loukis EN. Social science computer review. In: Dunleavy P, Margetts H, Bastow S, Tinkler J, editors. *Digital era governance – IT corporations, the state and e-government.* New York: Oxford University Press; 2007. 26(2):254–7. https://doi.org/10.1177/0894439307304515

[34] *E-Government benchmark 2022: Synchronising digital governments. Background report.* Publications Office of the European Union; 2022. https://doi.org/10.2759/488218

[35] *Digital Decade 2024: eGovernment benchmark. Shaping Europe's digital future.* EC; 2024. https://digital-strategy.ec.europa.eu/en/library/digital-decade-2024-egovernment-benchmark

[36] Bobrovska O, Drobot I, Nadyuk Z, Hrytsko R, Pokataev P. Modern theories of public administration: Experience for Ukraine. *Journal of the National Academy of Legal Sciences of Ukraine*. 2020;27(4):107–20. https://doi.org/10.37635/jnalsu.27(4).2020.107-120

[37] Omelyanenko VA, Fantaiev VE. Methodical aspects of assessing the impact of implementation stages of smart city projects on the social and economic impacts. *Zenodo.* 2024 Aug 20. https://doi.org/10.5281/zenodo.13326540

[38] Illiashenko NS, Myronenko AI. Analysis of innovative approaches to public administration. *State and Regions. Series: Public Management and Administration*. 2025;1:94–100. https://doi.org/10.32782/1813-3401.2025.1.15

[39] *E-Government Development Index.* Division for Public Institutions and Digital Government, Department of Economic and Social Affairs, United Nations; 2025. https://publicadministration.un.org/egovkb/en-us/data-center

[40] *E-Gov Development Index (UN EGDI) – Overall score.* World Bank Data; 2024. https://data360.worldbank.org/en/indicator/UN_EGDI_EGDI

[41] Handoyo S. Public governance and national environmental performance nexus: Evidence from cross-country studies. *Heliyon*. 2024;10(23):e40637. https://doi.org/10.1016/j.heliyon.2024.e40637

[42] Far SB, Imani Rad A, Rajabzadeh Assar M. Blockchain and its derived technologies shape the future generation of digital businesses: A focus on decentralized finance and the Metaverse. *Data Science and Management*. 2023. https://doi.org/10.1016/j.dsm.2023.06.002

[43] Yurchyshyn OYa, Stepanets OV, Skorobogatova NYe. Analysis of digital technologies in Ukraine: Problems and prospects. *CEUR Workshop Proceedings.* 2024. https://ceur-ws.org/Vol-3781/paper15.pdf

[44] Alaassar A, Mention A-L, Aas TH. Exploring how social interactions influence regulators and innovators: The case of regulatory sandboxes. *Technological Forecasting and Social Change*. 2020;160:120257. https://doi.org/10.1016/j.techfore.2020.120257

[45] Del-Real C, De Busser E, van den Berg B. Shielding software systems: A comparison of security by design and privacy by design based on a systematic literature review. *Computer Law & Security Review*. 2024;52:105933. https://doi.org/10.1016/j.clsr.2023.105933

[46] Okon SU, Olateju OO, Ogungbemi OS, Joseph SA, Olisa AO, Olaniyi OO. Incorporating privacy by design principles in the modification of AI systems in preventing breaches across multiple environments, including public cloud, private cloud, and on-prem. *Journal of Engineering Research and Reports.* 2024;26(9):136–58. https://doi.org/10.9734/jerr/2024/v26i91269

[47] *Europe's digital decade strategic roadmap: Estonia.* Ministry of Economic Affairs and Communications of Estonia; 2025.

https://www.justdigi.ee/sites/default/files/documents/2025-03/Estonian%20National%20Digital%20Decade%20Strategic%20Roadmap%202025.pdf

[48] *Ukraine digital development country profile.* International Telecommunication Union; 2025. https://www.itu.int/en/ITU-D/Regional-Presence/Europe/Documents/Publications/2025/Final_Ukraine%20Digital%20Development%20Country%20Profile%20version%203.0.pdf

[49] *Law of Ukraine on electronic trust services.* Law of Ukraine No. 2155-VIII; 2024. https://zakon.rada.gov.ua/laws/show/2155-19#Text

[50] *Law of Ukraine on public electronic registers.* Law of Ukraine No. 1907-IX; 2022. https://zakon.rada.gov.ua/laws/show/1907-20#Text

[51] OECD. *Korean focus areas: A global powerhouse in science and technology.* 2021b. https://www.oecd.org/en/publications/korean-focus-areas_f91f3b75-en/a-global-powerhouse-in-science-and-technology_61cbd1ad-en.html

[52] Cheong I, Cho J. Digital government in the Republic of Korea: Evaluation and challenges. In: Chen L, Kimura F, editors. *Empowering Online Public Service in Asia: The Digital Frontier*. Jakarta: ERIA; 2024. https://www.eria.org/uploads/07-Chapter-6-Digital-Government-in-the-Republic-of-Korea.pdf

[53] Bojarski Ł, Wiaderek G. *Legal think tanks and government – Capacity building country report: Poland*. 2017. https://www.inpris.pl/fileadmin/user_upload/documents/TT_GOV/LTTs-and_Gover-2017-country-report-Poland.pdf

[54] *European Union supports Ukraine's digital path to the EU: DT4UA project results.* EEAS; 2025. https://www.eeas.europa.eu/delegations/ukraine/european-union-supports-ukraine%E2%80%99s-digital-path-eu-dt4ua-project-results_en

[55] Yermachenko V, Bondarenko D, Akimova L, Karpa M, Akimov O, Kalashnyk N. Theory and practice of public management of smart infrastructure in the conditions of the digital society development: Socio-economic aspects. *Economic Affairs (New Delhi).* 2023;68(1):617–33. https://doi.org/10.46852/0424-2513.1.2023.29

[56] Kattel R, Mergel I. *Estonia's digital transformation: Mission mystique and the hiding hand.* Oxford: Oxford University Press; 2019. https://surl.li/rdpuhz

[57] Vyhovska V, Sholudko V, Balytska M. State digital transformation in Ukraine: 2019–2024 review. *VoxUkraine.* 2025. https://voxukraine.org/en/state-digital-transformation-in-ukraine-2019-2024-review

[58] Czerniak A, Płóciennik S. Public investment in Poland. In: *The Great Reset*. Cambridge: Open Book Publishers; 2021. p. 79–92. https://doi.org/10.11647/obp.0280.05

[59] Millard J. *Impact of digital transformation on public governance – New forms of policy-making and the provision of innovative, people-centric and inclusive public services.* Luxembourg: Publications Office of the European Union; 2023. https://doi.org/10.2760/204686

[60] Azmat F, Lim WM, Moyeen A, Voola R, Gupta G. Convergence of business, innovation, and sustainability at the tipping point of the sustainable development goals. *Journal of Business Research*. 2023;167:114170. https://doi.org/10.1016/j.jbusres.2023.114170

[61] Cholyshkina O, Karnaukh A, Volianiuk O, Ostapenko M, Holishevska A. Public participation and innovative technologies: The role of artificial intelligence in public administration and sustainable development. *Salud, Ciencia y Tecnología - Serie de Conferencias*. 2024;3:974. https://doi.org/10.56294/sctconf2024974

APPENDIX

EGDI In The Countries Of The European Area (2010-2024)

	2010	2012	2014	2016	2018	2020	2022	2024
Albania	0.45192	0.51606	0.50455	0.53305	0.6519	0.7399	0.7413	0.8
Andorra	0.14285	0.1579	0.43137	0.44068	0.5674	0.5119	0.375	0.5479
Austria	0.5	0.3684	0.62745	0.88136	0.8258	0.9762	0.7727	0.7808
Belarus	0.24285	0.0789	0.35294	0.55932	0.882	0.75	0.4318	0.4932
Belgium	0.58571	0.1316	0.62745	0.64407	0.7584	0.6548	0.4545	0.5068
Bosnia and Herzegovina	0.04285	0.1245	0.23529	0.50847	0.4326	0.6071	0.5341	0.5479
Bulgaria	0.3	0.0263	0.2549	0.69492	0.8708	0.8929	0.7386	0.6712
Croatia	0.45714	0.2895	0.33333	0.77966	0.7697	0.8929	0.7386	0.9178
Cyprus	0.48571	0.0789	0.31372	0.52542	0.8202	0.9524	0.75	0.6986
Czechia	0.60602	0.64914	0.60695	0.64537	0.7084	0.8135	0.8088	0.82394
Denmark	0.78722	0.88885	0.8162	0.85102	0.915	0.9758	0.9717	0.98474
Estonia	0.69653	0.79873	0.81796	0.83344	0.8486	0.9473	0.9393	0.97274
Finland	0.41428	0.7368	0.70588	0.91525	1	0.9524	0.9545	0.8904
France	0.6	0.5789	0.96078	0.89831	0.9663	0.9048	0.7159	0.8082
Germany	0.61428	0.7632	0.70588	0.76271	0.9213	0.75	0.7273	0.9726
Greece	0.57075	0.68716	0.71176	0.691	0.7833	0.8021	0.8455	0.86737
Hungary	0.31428	0.4474	0.45098	0.49153	0.7079	0.6786	0.5114	0.5479
Iceland	0.04285	0.1579	0.49019	0.66102	0.6854	0.7738	0.7955	0.9589
Ireland	0.44285	0.1316	0.64705	0.71186	0.9326	0.8571	0.6818	0.9178
Italy	0.57995	0.71895	0.7593	0.77636	0.8209	0.8231	0.8375	0.83557
Latvia	0.27142	0.2105	0.70588	0.52542	0.6854	0.5833	0.7386	0.7808
Liechtenstein	0.12857	0.2368	0.2745	0.62712	0.7472	0.6071	0.5455	0.6575
Lithuania	0.62952	0.73329	0.72709	0.77467	0.7534	0.8665	0.8745	0.91104
Luxembourg	0.17142	0.3947	0.54901	0.69492	0.9382	0.7024	0.75	0.6301
Malta	0.61293	0.7131	0.6518	0.74242	0.8011	0.8547	0.8943	0.8886
Monaco	0.02857	0.1842	0.09803	0.28814	0.5618	0.369	0.1364	0.1507
Montenegro	0.15714	0.3158	0.58823	0.83051	0.7416	0.5476	0.4659	0.5068
Netherlands	0.80968	0.91249	0.88966	0.86586	0.8757	0.9228	0.9384	0.95384
North Macedonia	0.52611	0.55865	0.47198	0.58855	0.6312	0.7083	0.7	0.70704

Norway	0.80199	0.85931	0.83572	0.81168	0.8557	0.9064	0.8879	0.93153
Poland	0.24285	0.1842	0.49019	0.88136	0.8933	0.9643	0.6477	0.7534
Portugal	0.27142	0.3684	0.64705	0.66102	0.8989	0.8214	0.7273	0.6438
Romania	0.18571	0.0789	0.47058	0.62712	0.7079	0.8095	0.625	0.6849
Russia	0.51359	0.73448	0.72959	0.72147	0.7969	0.8244	0.8162	0.85325
San Marino	0. 0051	0.63046	0.58225	0.5506	0.6471	0.6175	0.6454	0.65509
Serbia	0.04285	0.2368	0.41176	0.83051	0.8146	0.8214	0.8068	0.8904
Slovakia	0.56387	0.62918	0.61478	0.59154	0.7155	0.7817	0.8008	0.80214
Slovenia	0.62426	0.74921	0.65054	0.77691	0.7714	0.8546	0.8781	0.87589
Spain	0.82857	0.5	0.78431	0.9322	0.9831	0.8452	0.75	0.8082
Sweden	0.74744	0.8599	0.8225	0.87039	0.8882	0.9365	0.941	0.93262
Switzerland	0.7136	0.81341	0.7267	0.75246	0.852	0.8907	0.8752	0.90035
Turkey	0.21428	0.0526	0.49019	0.62712	0.8596	0.8929	0.7841	0.863
Ukraine	0.51808	0.5653	0.50316	0.60756	0.6165	0.7119	0.8029	0.88407
United Kingdom	0.77142	0.9211	0.96078	1	0.9831	0.9762	0.9545	0.9726

Source: (UN, 2025)