Advancing Public Administration: Enforcing Strategic Methods and Utilising Tools

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Abstract Innovation transfer in public administration represents a pivotal element in ensuring efficiency and alignment with the demands of modern society. This study analyses scientific advancements concerning innovation transfer in public management, considering the experiences of various countries worldwide. Priority directions for innovative development in Eurozone countries are identified, with emphasis placed on the significance of employing information and communication technologies and automating public management to enhance the quality of services provided to citizens by the state. The critical aspects of innovation in public management are outlined, and a range of economic indicators demonstrating a growing trend in the efficiency of public management, which is directly proportional to research and development expenditure as a percentage of GDP, is presented. A comparative analysis of e-government and e-participation development indices at the level of individual states, regions, and globally is conducted. Practical strategies and tools for implementing innovation in public management are identified, considering the stability and dynamism of scientific and technological advancements.

Index Terms e-government, digital technologies, geographic information systems, participatory methods, innovation culture, public sector management

I. Introduction

The necessity for innovation in public administration becomes increasingly apparent in a society in constant evolution and dynamic change. In order to remain effective, governments must embrace new technologies, adapt to changing citizen demands, and find creative solutions to complex problems. Innovation transfer in public administration transfers knowledge, technologies, methods, and best practices from the private business sector, academic institutions, or other sources to the sphere of activity of public sector institutions and local government bodies. This process is becoming increasingly relevant in the modern economic landscape due to the rapid pace of technological change, increased competition, and the need for efficient resource utilisation. Practical strategies and tools are paramount for implementing innovations in public administration. It enhances government institutions' efficiency and improves citizens' quality of life. The results of this process can contribute to achieving strategic goals in societal management and advancing democracy.

A. Literature review

The literature review results indicate a dispersion and heterogeneity among researchers publishing articles on innovations in the public sector and its institutions. However, it also demonstrates increased national publications on this topic [1]. The contribution of innovations in public administration to sustainable development and their impact on citizens' expectations regarding government activities are discussed in the works of scholars and practitioners from various countries. Governments strive to modernise public administration, strengthen its capacity, and make it more efficient and accountable [2]. To achieve this, various methods and techniques are employed to understand citizens' needs, reduce the gap between the government and the people, and enhance public trust, an essential factor [3]. Scholars have called for a reassessment of the widely accepted assumption that risk-averse culture in public sector institutions is the cause of management inefficiency and a stumbling block on the path to innovation success [4], [5]. The potential for synergy between traditional administrative innovation tools and modern public management methods is being investigated [6]–[8]. In recent years, there has been a growing focus on the effective functioning of the public sector through citizen engagement, utilising tools for innovative development [9].

The globalisation of the innovation transfer process in civil organisations, the formation of national values, and their

positive impact on fulfilling their societal mission are explored by scholars and practitioners [10], [11]. Innovations are considered through the lens of radical change in public administration, encompassing implementing new processes and technologies, creating new products, and introducing new values [12]. In a broader context, innovation involves collaboration between government, the private sector, and communities to develop innovative solutions to address complex public administration issues and provide quality services to the population [13]. Researchers have studied the impact of innovative factors in technological and administrative policies on the level of development of e-government by municipalities [14]. In the academic environment, discussions are held on improving public management tools in the context of innovation transfer as a countermeasure to shadow financial operations [15]. The practical social consequences and challenges of implementing digital technologies to enhance transparency, efficiency, and accountability in public administration are being studied [16]–[19].

This study aims to reveal the scientific and practical foundations for using compelling, innovative strategies and tools to influence the development of public administration.

II. Methodology

Various methods of scientific cognition of economic phenomena and processes were used for the research. Reviewing and analysing existing literature allowed for evaluating current knowledge and identifying the main trends, strategies, and tools of innovation in the public sector through methods of analysis and synthesis. The study of specific cases of innovation implementation in public administration for analytical processing of their successes, challenges, and learning outcomes was conducted based on case analysis. Collecting, processing, and analysing statistical data and information related to public management and innovation implementation were conducted using empirical research. Monographic and graphical methods allowed the visualisation of the main trends of innovation and their impact on the development of public management at different levels of governance. System analysis allowed for the consideration of the interrelationships and interactions between the components of public management, ensuring effective innovation transfer and forming general conclusions and generalisations.

These methods can be used separately or in combination to ensure objective and comprehensive information synthesis and the formation of well-founded conclusions in scientific research.

III. Research results

It is widely acknowledged that innovations, at least in the private sector, are fundamental to economic growth and prosperity through creative destruction, which stimulates entrepreneurial activity. However, the extent to which entrepreneurship is possible or appropriate as a mechanism to stimulate innovations in the public sector needs to be clarified. Despite the public sector having a different organisational

structure than the private sector, with different motivations, risks, and rewards, as well as different incentives and constraints, it can benefit from something akin to private sector entrepreneurial activity as a mechanism for generating innovations in the public sector that contribute to economic growth and prosperity [20].

In a constantly evolving society, the need for innovations in public administration becomes increasingly apparent. To meet the challenges of the modern age, public administration bodies must utilise new technologies, adapt to changing citizen needs, and generate unique solutions for complex problems. Innovative approaches can only realise these changes. Therefore, establishing an independent division for innovation in public administration should be a priority for all governments [21], [22].

The European Commission has identified several priority areas for innovative development in public management, among which the following should be highlighted: technologies, open government policy, reorganisation of the political system, transparency, and the use of participatory management methods [23]. Technologies shape the innovative potential in the public sector, improve interactions between the government and citizens by simplifying procedures, and promote open governance. Reorganising the political system and a broader review of government functions facilitate a more interactive and practical development of public management. Open government policy can be refined, and clear strategies can be developed. Accountability, transparency, and fairness should be at the heart of democratic governance [24].

Innovations in government and public administration involve strategically integrating advanced technologies to enhance the efficiency, transparency, and accessibility of public service delivery. These transformations include digital transformation, data analytics, AI, and citizen-centric programmes changing the government and public management landscape.

Tools such as visionary thinking, speculative reasoning, participatory approaches, and service design can bring innovative approaches to public management, working with various stakeholders and citizens. Implementing new organisational structures with a reduced hierarchy and innovative co-design methods, including public initiatives, can facilitate people's engagement in developing novel creative solutions that enhance public management's innovative capacity and competitiveness compared to the private sector. The acquisition of new skills in public management can enhance public administration effectiveness and forward-thinking, as well as the capacity to identify new challenges and apply innovative approaches. Public administration bodies may consider modernising their hiring processes to attract individuals capable of creating new policy styles [24]. It is thus necessary to highlight the critical aspects of innovation in public management (Figure 1).

The transfer of innovations into public administration can enhance citizens' quality of life, increase efficiency in state management, and facilitate the development of society. It represents an important direction of development that con-
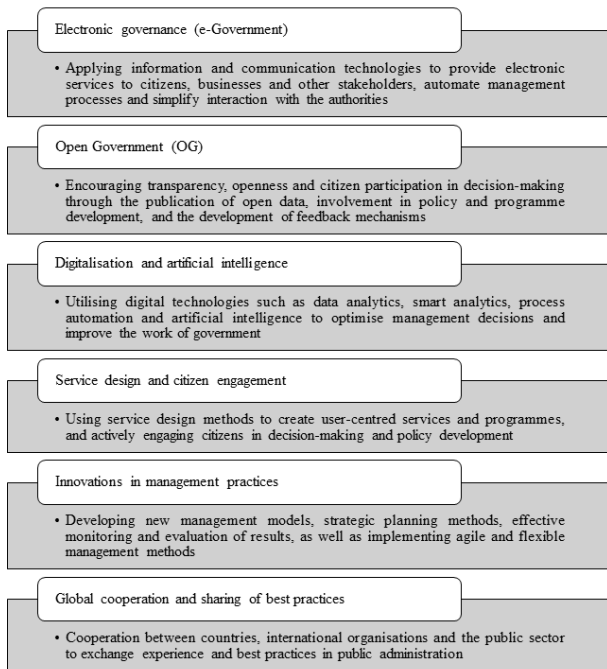
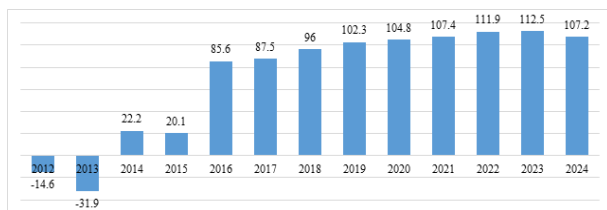Figure 1: Critical Aspects of Innovation in Public Administration

Figure 2: Changes in the Quality of Life Index in Ukraine, 2012-2024

Figure 3: Global Average R&D Expenditure and CPIA Budget and Financial Management Quality Rating (1=low to 6=high) [26]

siders the modern world's needs and contributes to achieving strategic societal goals, as evidenced by the dynamics of the Life Quality Index change in Ukraine (Figure 2).

Implementing effective strategies and innovation tools in public administration contributes to ensuring governmental bodies' efficiency, transparency, and openness. It, in turn, helps increase citizens' trust in governmental structures and improve the overall quality of life [25]. An analysis of global data on the quality of public management demonstrates a growing trend of direct dependency on expenditures for research and development as a percentage of GDP (Figure 3).

E-government plays a pivotal role in the public management system, facilitating the implementation of modern technologies and enhancing the efficiency of state affairs.

Internet platforms and electronic systems provide a convenient avenue for citizens to access many public services offered by government bodies. These include the submission of documents, the acquisition of information about rights and duties, the registration for events, and more. E-government enables the automation of numerous administrative processes,
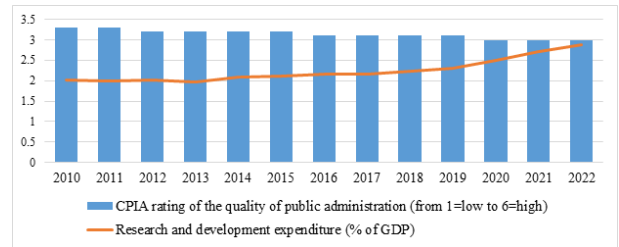
rendering them more efficient and cost-effective. For instance, electronic systems can streamline the processes of document processing, internal reporting, and communication between governmental bodies. Information about government activities can be readily accessible to the public through electronic portals and websites, thereby enhancing the level of transparency and accountability of the government to its citizens. E-government enables collecting and analysing large volumes of data regarding governmental activities. It facilitates informed decision-making regarding budget planning, policy development, and the resolution of other public management issues [27], [28].

The implementation of cybersecurity measures and the adherence to appropriate data protection standards enables e-government to address the challenge of ensuring the security and confidentiality of information. Overall, e-government in the public management system improves service quality, increases the efficiency and transparency of government processes, and enhances the level of interaction between the government and citizens.

The OECD defines e-government as "the use of information and communication technologies (ICTs), particularly the Internet, for better governance" [24]. This definition focuses on the rationale behind implementing e-government rather than the ICT tools themselves. In light of the necessity to enhance government efficiency while addressing the needs of citizens, OECD countries have recognised that e-government extends beyond the mere placement of information and services online. It can be employed as a potent instrument for transforming public administration's structures, processes, and culture and for enhancing its efficiency, user orientation, and transparency.

In summary, e-government is becoming an increasingly important element of modern public administration. It helps to ensure greater accessibility, efficiency, and transparency in interactions between the government and citizens, and also fosters the development of democracy and increases public trust in the authorities. The effectiveness of e-government is measured by the E-Government Development Index (GDI) and the Participation Index (PI).

The E-Government Development Index (E-GDI) is employed to ascertain the efficacy of e-government across disparate countries. This index, devised by the United Nations
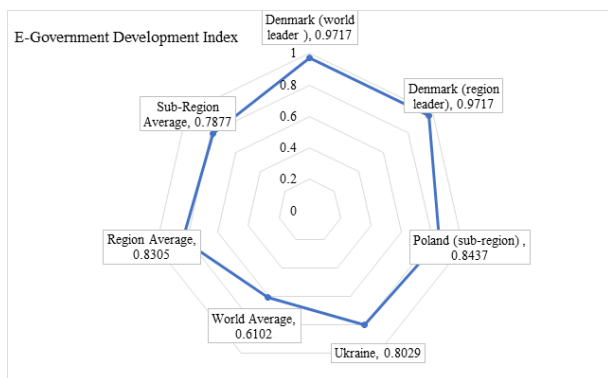
Figure 4: E-Governance Development Index, 2022

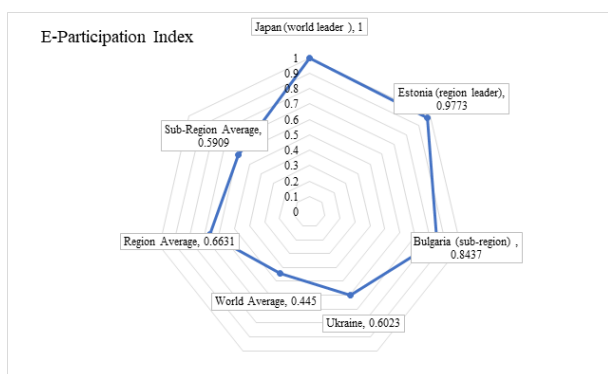Figure 6: E-Participation Index, 2022

Figure 5: E-Participation Index, 2022

(UN), encompasses an evaluation of several pivotal indicators that reflect the extent of accessibility and quality of electronic public services, the utilisation of ICTs by the government, and the degree of openness and transparency in management. The index considers several critical indicators, including the accessibility of government websites, electronic services for citizens and businesses, electronic document management, electronic mechanisms for interaction with citizens and businesses, digital transparency, and more [20].

The E-Government Development Index ranks countries and allows for comparison of the level of e-government development among different countries and identification of their achievements in this area. It enables countries to identify their strengths and weaknesses in this field and to take steps for further development and improvement of e-government. To illustrate, Figure 4 presents Ukraine's position in the global ranking of these indicators for 2022.

A review of the presented innovation indicators for developing public management demonstrates the need to monitor the impact of innovative technologies and identify effective strategies and tools.

IV. Discussion

Implementing innovations in public management necessitates delineating practical strategies and tools. This process encompasses a series of steps and approaches. At its most fundamental level, governance is a geographical issue. Cities, counties,
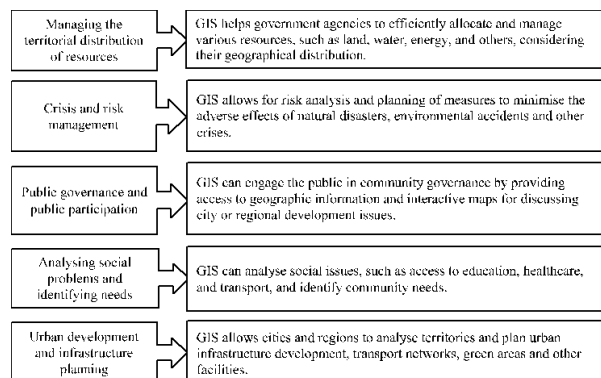
states, and nations are bound by geographical borders and are responsible for adequately managing activities within those borders.

Consequently, Geographic Information Systems (GIS) have emerged as a pivotal component of effective governance, particularly at the local level. A Geographic Information System (GIS) plays a significant role in modern public management through its capabilities in analysing and visualising geographic data. Figure 6 illustrates the main areas where GIS is crucially important.

Geographic Information Systems (GIS) assist government bodies in effectively distributing and managing various resources, including land, water, and energy. GIS takes into account the geographical distribution of these resources. These applications demonstrate how GIS plays a crucial role in modern public management. GIS provides a convenient tool for analysis, planning, and decision-making at various levels of government and interaction with the public [29].

Participatory methods deserve special attention among the practical tools of modern public management. These methods are designed to engage the public, stakeholders, and citizens in management processes and decision-making. They are intended to ensure greater transparency, openness, and efficiency in managing community affairs. Several participatory methods are in use. These include public consultations and discussions, public committees and working groups, electronic platforms for public participation, public audits and monitoring, participatory budgeting, co-decision-making, and the organisation of meetings, public hearings, or other events where members of the public have the opportunity to express their opinions, questions, and suggestions on specific issues or projects [30].

The establishment of special committees or groups comprising members of the public facilitates the formation of effective decisions and the development of policies to address specific societal problems, regions, or localities. The creation of web portals, apps, and other electronic resources that allow the public to express their opinions, vote on specific ideas and projects, and discuss issues online facilitates public involvement in monitoring the activities of governmental bodies, budget expenditures, and project implementation through audits,

Strategic direction	Direction description
Creating an innovation culture	Creating an open and enabling environment for innovation is the first step in implementing innovation. It can include supporting creativity and initiatives, establishing mechanisms for collecting and analysing ideas, and providing opportunities for experimentation and piloting innovative approaches.
Stakeholder engagement	Including the public, civil society, business, and other stakeholders in the innovation process is essential. It can provide more vital legitimacy and support for innovation and help address different groups' needs and expectations.
Applying technology	Using modern technologies has significantly transferred innovations to public administration. It includes the introduction of e-governance, data analysis, artificial intelligence and other information technologies to optimise processes and improve public services.
Funding and resources	Successful innovation requires adequate financial and human resources. Adequate funding, training and support for staff, as well as the necessary technical facilities and infrastructure, should be provided.
Evaluation and monitoring	It is essential to systematically evaluate and monitor the implemented innovations to assess their effectiveness and make adjustments if necessary. It will help avoid unnecessary costs and contribute to the continuous improvement of public administration processes.

Table 1: Critical Strategies for Implementing Innovations in Public Administration

Tools	Tool characteristics
Process approaches	Using process management techniques to optimise government workflows improves efficiency and effectiveness.
E-government	Introducing information and communication technologies to automate processes, improve access to public services, and ensure transparency and openness of government agencies.
Design thinking	Applying design thinking methodology to create innovative solutions and improve user experience.
Lean or Six Sigma implementation projects	Using Lean and Six Sigma to identify and eliminate excess costs and unproductive processes in government agencies.
Change management	Implementing change management strategies and techniques to adopt innovations and address resistance to change effectively.
Projects and programmes of effective management	Developing and implementing specialised projects and programmes aimed at improving certain aspects of management.
Using stakeholders	Active involvement of stakeholders, including public associations, the business community, the academic sector and other interested parties, in the process of introducing innovations.
Pilot projects and innovation labs	Creating pilot projects and laboratories to test and implement new ideas and solutions in a controlled environment.

Table 2: Tools for Transferring Innovations to Public Management

monitoring studies, and assessments. These methods facilitate greater legitimacy, efficiency, and transparency in management, thereby promoting the inclusion of diverse views and experiences in managing community affairs [31], [32].

The public sector plays a significant role as an employer, provider, and recipient of services. Innovations in the public sector are primarily focused on processes, products, organisation, and communication. Both citizens and businesses benefit from professional and modern public administration through enhanced governance, accelerated service delivery, and collaborative policy creation and development.

In the EU, there is no overarching legislation specifically focused on innovations in the public sector. However, advisory services are provided on issues related to digital transformation, enhancing mobility and cross-border compatibility, strengthening innovation entities, setting standards for innovations, and overcoming barriers to innovations in the public sector. The European Parliament has repeatedly shown a favourable attitude towards innovations in the public sector, notably calling for the EU to accelerate the implementation of the Digital Single Market programme [33].

Implementing innovations in public administration can be challenging, as public management has unique features, including bureaucratic procedures, the open nature of processes, and democratic principles. However, innovations can help enhance the efficiency and quality of services provided to the community. Table 1 outlines the main strategies for implementing innovations in public administration.

These strategies can assist public institutions and bodies in implementing innovations that enhance the quality and efficiency of services provided to the community. As outlined in Table 2, innovations can be introduced into public management through various tools and methods.

These tools can be used individually or in combination to effectively implement innovations in public management and achieve the government's strategic goals.

V. Conclusion

The results of the conducted research indicate that the progressive tools of modern public management encompass a diverse array of methods, technologies, and strategies designed to enhance efficiency, transparency, innovativeness, and public engagement. These include e-government, design thinking, business analytics and artificial intelligence, participatory platforms and communication tools, geographic information systems, smart cities and regions, and partnerships with the private sector and public organisations. These tools and methods enable governments and administrators to enhance their efficiency, transparency, and innovativeness, meeting modern society's demands and addressing complex challenges.

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