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METHODOLOGICAL FOUNDATIONS FOR DIAGNOSING THE EFFECTIVENESS OF PUBLIC ADMINISTRATION IN THE SECURITY AND DEFENSE SECTOR UNDER RUSSIAN AGGRESSION: UKRAINIAN EXPERIENCE

The article examines the methodological foundations for assessing the effectiveness of public administration mechanisms in Ukraine's security and defense sector under conditions of full-scale armed aggression by the Russian Federation. The necessity of developing specific methods for diagnosing management effectiveness that account for the sector's operational peculiarities under martial law and hybrid threats is substantiated.

Conceptual approaches to defining criteria and indicators of public administration effectiveness in the security and defense sector are revealed. A system of diagnostic parameters is proposed, including institutional, functional, and resource efficiency. Special attention is paid to analyzing the specifics of Ukrainian experience in managing the security sector during ongoing war.

The methodological peculiarities of effectiveness assessment under conditions of security environment transformation are investigated, when traditional diagnostic approaches require adaptation to wartime realities. Challenges associated with balancing operational decision-making and adherence to democratic civilian control principles are

analyzed.

It is determined that effective diagnostics must be based on a comprehensive approach combining quantitative and qualitative assessment methods, accounting for the dynamic nature of threats and ensuring the possibility of timely management decision adjustments. The necessity of developing a continuous monitoring system for key performance indicators using modern information-analytical systems is substantiated.

The practical significance of the research lies in forming methodological tools for improving the quality of public administration in the security and defense sector, which is critically important for ensuring state defense capability under conditions of armed aggression.

Keywords: *public administration, security and defense sector, effectiveness diagnostics, methodology, russian aggression, martial law, effectiveness criteria, performance indicators, Ukrainian experience, institutional capacity.*

Problem Statement and Its Connection with Relevant Scientific and Practical Tasks. The full-scale armed aggression of the russian federation against Ukraine, initiated on February 24, 2022, has fundamentally transformed the operational conditions of the state's security and defense sector. The ongoing war has actualized the problem of scientifically grounded diagnostics of public administration mechanisms' effectiveness in the sector, as traditional methodological approaches developed for peacetime conditions have proven insufficiently adapted to martial law realities. The specificity of the contemporary security environment is characterized by high threat dynamics, the necessity for rapid management decision-making under time and resource constraints, and the need to balance military effectiveness with adherence to democratic civilian control principles. Analysis of the security and defense sector's public administration system functioning during war demonstrates a critical need for developing adequate methodological tools for diagnosing management effectiveness.

According to the Law of Ukraine "On National Security of Ukraine" (as amended on August 21, 2025), the efficiency of resource utilization by security and defense sector bodies is a key object of state control. However, the absence of clearly defined diagnostic methodology complicates objective assessment of management decisions' effectiveness

and timely identification of systemic dysfunctions. In the third quarter of 2024, security and defense sector expenditures amounted to 2.97 trillion UAH (38.9% of GDP), which is 326.9 billion UAH more compared to 2023. The scale of financing actualizes the issue of diagnosing resource utilization efficiency and management mechanisms' effectiveness in achieving national security strategic goals.

The scientific problem is the absence of conceptually grounded methodology for diagnosing public administration effectiveness in the security and defense sector that accounts for system functioning specifics under martial law, hybrid threats, and security environment transformation. Existing studies predominantly focus on separate aspects of management activity without forming a holistic system of diagnostic parameters. The practical task consists in developing methodological tools capable of ensuring objective, comprehensive, and systematic assessment of state management mechanisms' effectiveness in the sector to timely identify management dysfunctions, substantiate corrective decisions, and enhance overall national security system performance under armed aggression conditions.

Analysis of Recent Domestic and Foreign Research. The problem of public administration effectiveness in the security and defense sector under armed aggression conditions has received active scientific reflection during 2024-2025, driven by practical needs of the national security system functioning during full-scale war. Fundamental principles of strategic leadership and military management of the security and defense sector are revealed in the collective monograph edited by I. S. Rusnak (2024). The authors examine new formats of strategic sector leadership, outline ways to determine optimal management models, and propose approaches to implementing more effective strategies for countering the aggressor in hybrid warfare. However, methodological aspects of management effectiveness diagnostics remained outside researchers' attention.

M. Tkach and V. Tkachenko (2024) analyzed the formation, modern structure, and functions of Ukraine's defense sector, conducting comparative analysis with NATO member countries. Researchers identified that modernization and technological development of the sector are important tasks for national security, though issues of methodology for assessing these processes' effectiveness received insufficient coverage. L. Ya. Parashchuk and S. M. Parashchuk (2025) investigated the use of information systems to improve situational

awareness of military command bodies. Authors substantiated the necessity of implementing modern information-analytical systems to enhance management decision quality, which constitutes an important component of management effectiveness diagnostics under martial law conditions.

H. B. Hyshko, M. M. Romaniuk, O. V. Kolmohorov, V. I. Liaskovskyi (2024) analyzed possibilities for increasing Defense Forces units' capabilities by engaging local infrastructure resources. The research demonstrates the importance of assessing resource efficiency as a component of overall sector management diagnostics during war. Strategic analysis of Ukraine's security environment conducted by O. V. Lytvynenko and the NISS team (2025) identified key challenges and opportunities for state development under conditions of countering russian aggression. Authors substantiated the necessity of improving public administration efficiency as one of the priority tasks for national security, though specific methodological tools for effectiveness diagnostics were not developed.

Analytical reports by the Democratic Initiatives Foundation named after Ilko Kucheriv (2024) systematized main events, processes, and trends in national security and defense during 2024. Studies demonstrated that the russian side possessed operational-tactical initiative in the theater of military operations, actualizing the issue of diagnosing management mechanisms' effectiveness in countering aggression.

The normative-legal foundation for diagnostics is established by provisions of the Law of Ukraine "On National Security of Ukraine" (as amended on August 21, 2025) and the Decree of the President of Ukraine "On the Strategy of Military Security of Ukraine" (2021), which define resource utilization efficiency by sector bodies as an object of state control and establish principles of accountability and transparency of system functioning. Analysis of scientific publications demonstrates that researchers focus predominantly on separate aspects of security and defense sector functioning – structure, functions, technological support, strategic leadership. Simultaneously, comprehensive studies of methodological foundations for diagnosing public administration effectiveness in the sector under martial law conditions are absent. A holistic system of assessment criteria and indicators has not been formed, specific diagnostic methods adapted to full-scale war and hybrid threats realities have not been developed.

Formulation of Article Goals. The purpose of the article is to substantiate the methodological foundations for diagnosing the effectiveness of public administration in Ukraine's security and defense sector under conditions of full-scale armed aggression by the russian federation, based on generalization of Ukrainian experience of system functioning under martial law conditions.

Presentation of Main Research Material with Full Justification of Obtained Scientific Results.

Conceptualization of diagnostics of public administration effectiveness in the security and defense sector under martial law conditions requires rethinking traditional approaches developed for peacetime system functioning. Effectiveness diagnostics represents a systematic process of identifying, measuring, and evaluating public administration mechanisms' performance through the prism of achieving national security strategic goals with optimal use of limited state resources. Unlike general monitoring, diagnostics involves not only indicator recording but also revealing cause-and-effect relationships between management decisions and their results, which is critically important for timely correction of state policy under dynamic threat conditions.

According to the Law of Ukraine "On National Security of Ukraine" [2], effectiveness diagnostics is a component of the democratic civilian control system over the security and defense sector functioning. However, martial law specifics, when according to Cabinet of Ministers data sector expenditures in 2024 amounted to 2.97 trillion UAH (38.9% of GDP) [9], require development of specific methodological tools capable of ensuring rapid and objective assessment of resource utilization under heightened risks and uncertainty. The methodological foundation of diagnostics should be a systematic approach that allows considering the security and defense sector as a complex multilevel system of interconnected elements. As I. S. Rusnak and co-authors substantiate [5], effective strategic sector leadership involves coordinating capabilities of all system components accounting for security environment transformation. This means diagnostics cannot be limited to assessing separate elements but must encompass the entire set of institutional, functional, and resource parameters of the management system.

The system of criteria for assessing public administration effectiveness in the security

and defense sector under armed aggression conditions must be based on a multidimensional approach accounting for wartime specifics. The primary criterion is the management system's ability to ensure aggressor deterrence and state territorial integrity protection. As analytical studies demonstrate [3, 10], during 2024 the opponent possessed operational-tactical initiative in certain directions, actualizing the issue of assessing management response adequacy to dynamic threats. This criterion reflects the sector's fundamental purpose and can be evaluated through defense operations effectiveness, loss and combat capability restoration rates, effectiveness of national resources mobilization for defense needs. The second criterion is management decision-making and implementation rapidity. Under war conditions, as Ukrainian security sector experience shows, time becomes a critical resource, and threat response speed directly affects aggression counteraction effectiveness. Research by L. Ya. Parashchuk and S. M. Parashchuk [4] demonstrates that implementing modern information systems to enhance situational awareness of military command bodies is a necessary condition for ensuring management decision rapidity. Diagnostics by this criterion should assess average time from threat detection to decision-making, number of management levels in decision-making process, early warning systems effectiveness.

The third criterion is resource utilization efficiency, which gains special weight under conditions of their limitation and necessity of balancing between current defense needs and long-term capability development. M. Tkach and V. Tkachenko [7] substantiate that defense sector modernization requires optimal resource distribution among various system components. Sector financing at nearly 40% of GDP level creates both opportunities for strengthening defense capability and risks of inefficient fund utilization, requiring rigorous diagnostics of each budget hryvnia's effectiveness. Research by H. B. Hyshko and co-authors [1] demonstrates the importance of engaging local infrastructure resources to enhance units' capabilities, expanding the range of resource effectiveness diagnostic parameters.

The fourth criterion is management system adaptability to changing security environment conditions. Strategic analysis conducted by O. V. Lytvynenko and the NISS team [6] demonstrates that security environment transformation under war conditions occurs extremely dynamically, requiring management system capability for rapid institutional changes and resource redistribution. Adaptability diagnostics involves assessing response speed to new

challenges, organizational structures flexibility, capacity for innovations in national security provision methods and means. The fifth criterion is adherence to democratic civilian control principles while maintaining military effectiveness. According to provisions of the Law of Ukraine "On National Security of Ukraine" [2] and the Military Security Strategy [8], sector functioning must occur within constitutional norms observing accountability, transparency, and legality principles. Balancing between wartime operational secrecy requirements and democratic control necessity constitutes a complex task whose resolution effectiveness is subject to diagnostic assessment.

The complex of institutional effectiveness diagnostic indicators encompasses parameters characterizing the security and defense sector's organizational architecture quality. A key indicator is the level of coordination among various sector agencies, which can be assessed through the number of inter-agency coordination procedures, frequency of competence conflicts, consistency of various bodies' planning documents. As system functioning practice under war conditions shows, function duplication and action inconsistency among different bodies lead to critical time loss and inefficient resource utilization. Diagnostics must identify such institutional dysfunctions and form the basis for corrective management decisions. Functional effectiveness indicators reflect the performance of security and defense sector's main tasks. This group includes defense capability indicators encompassing military formations' combat readiness levels, personnel and equipment manning, personnel training system effectiveness. Under conditions of countering russian aggression, indicators of hybrid threat counteraction effectiveness gain special significance, encompassing information-psychological operations effectiveness, critical infrastructure cybersecurity quality, capability for detecting and neutralizing sabotage groups. Analytical studies [3] demonstrate that the russian side actively uses hybrid warfare methods, requiring comprehensive diagnostics of management system capability to counter such threats.

Resource effectiveness indicators characterize the optimality of human, financial, and material resources utilization. Critical is the analysis of national security and defense expenditure structure, which must ensure balance between current needs and prospective capability development. Diagnostics involves assessing the ratio of personnel maintenance costs, armament procurement, infrastructure development, and research work. State defense

order system effectiveness is evaluated through contract execution timeliness, product quality, price levels, domestic defense-industrial complex development. Diagnostic methodology under security environment transformation conditions requires combining quantitative and qualitative assessment methods. Quantitative methods involve using statistical indicators, financial metrics, measuring temporal parameters of management processes. However, security sector specifics, where significant information has restricted access, actualize qualitative methods application, particularly expert evaluation. M. Popov, O. Zaitsev, S. Stefantsev [10] developed an innovative approach to reducing cognitive biases in expert assessments, which has potential application for enhancing sector management effectiveness diagnostics objectivity.

Ukrainian experience of 2022-2025 demonstrates both achievements and challenges in diagnosing public administration effectiveness in the security and defense sector. Achievements include creating an operational monitoring system for sector financing, which ensured 100% fulfillment of budget allocations in 2024 [9]. International coordination mechanisms were developed, enabling significant volumes of external military-technical assistance attraction. Management process digitalization elements were implemented, enhancing decision-making rapidity. Simultaneously, systemic problems requiring methodological comprehension were revealed. Absence of a unified information-analytical platform complicates comprehensive diagnostics of various sector bodies' effectiveness. Limited transparency of certain decision-making procedures reduces external effectiveness audit possibilities. Insufficiently developed system for assessing management decisions' long-term consequences, which is especially important for post-conflict recovery and sector reform tasks.

Directions for methodology improvement include developing automated systems for data collection and analysis on sector functioning, implementing international effectiveness assessment standards with adaptation to national specifics, creating independent expert platforms for management decisions audit, forming a continuous training system for management personnel in diagnostics methods and effectiveness self-assessment.

Conclusions. The conducted research on methodological foundations for diagnosing public administration effectiveness in the security and defense sector under russian aggression conditions allows stating that traditional approaches to assessing management effectiveness

developed for peacetime require substantial adaptation to martial law realities. The specifics of sector functioning under full-scale war conditions are characterized by the necessity of balancing decision-making rapidity with adherence to democratic civilian control principles, requiring development of new diagnostic tools.

Conceptualization of effectiveness diagnostics as a systematic process of identifying cause-and-effect relationships between management decisions and their results allows considering it not merely as a control mechanism but as a tool for improving public administration quality in the sector. Diagnostics must encompass three interconnected effectiveness dimensions: institutional, functional, and resource, ensuring comprehensive assessment of management activity under dynamic national security threats conditions.

The substantiated system of effectiveness assessment criteria accounts for wartime priorities and reflects the multidimensionality of management activity in the security and defense sector. The management system's ability to ensure aggressor deterrence and state territorial integrity protection remains a fundamental effectiveness criterion, however under war conditions decision-making rapidity, adaptability to changing threats, and rational utilization of limited resources also gain critical weight. Ukrainian experience demonstrates that sector financing at nearly 40% of GDP level creates both opportunities for strengthening defense capability and heightened requirements for diagnosing each budget hryvnia's effectiveness.

The developed complex of diagnostic indicators encompasses both traditional management activity assessment parameters and specific indicators reflecting sector functioning peculiarities under hybrid warfare conditions. Institutional effectiveness indicators focus on coordination quality among various sector agencies, which is critically important for ensuring synergy in countering the aggressor. Functional effectiveness indicators emphasize the performance of main tasks including counteraction to not only conventional but also hybrid threats. Resource effectiveness indicators allow assessing the optimality of financial, human, and material resources utilization under their limitation and necessity of balancing between current defense needs and long-term capability development.

Diagnostic methodology under security environment transformation conditions requires organic combination of quantitative and qualitative assessment methods accounting

for security sector specifics where significant information has restricted access. Application of innovative approaches to reducing cognitive biases in expert evaluation can substantially enhance diagnostics objectivity. Simultaneously, implementation of modern information-analytical systems capable of ensuring operational data collection and processing on various sector components' functioning is critically important.

Generalization of Ukrainian experience in diagnosing security and defense sector management effectiveness during 2022-2025 reveals both significant achievements and systemic problems requiring methodological comprehension. Creating an operational financing monitoring system and developing international coordination mechanisms demonstrate the system's capability to adapt to wartime challenges. However, absence of a unified information-analytical platform and limited transparency of certain decision-making procedures reduce possibilities for comprehensive diagnostics of various sector bodies' effectiveness.

Prospects for further research are connected with developing automated diagnostic systems enabling continuous monitoring of key effectiveness indicators using artificial intelligence and big data technologies. An urgent direction is adaptation of international effectiveness assessment standards to Ukrainian security and defense sector specifics accounting for system functioning experience under full-scale war conditions. The practical significance of methodological developments lies in forming tools for improving public administration quality in the sector, which is critically important for ensuring state defense capability and creating the foundation for post-conflict national security system reform.

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