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ASSESSING THE EFFECTIVENESS OF FINANCIAL SUPPORT FOR THE LOGISTICS SYSTEMS OF MILITARY UNITS OF THE NATIONAL GUARD OF UKRAINE BASED ON THE KPI SYSTEM

The theoretical and practical aspects of financial support for the logistics systems of military units of the National Guard of Ukraine have been studied. The necessity of identifying ways to optimize and enhance the efficiency of using limited financial resources by military units of the National Guard of Ukraine in response to the challenges of martial law has been determined.

Recommendations are presented for defining and substantiating a methodological approach to the formation of effective financial support for the logistics systems of military units of the National Guard of Ukraine based on the KPI system.

The expediency of using key performance indicators in the process of financial support for the logistics systems of military units of the National Guard of Ukraine is substantiated as an important aspect of ensuring financial planning and logistics support, which makes it possible to create the necessary conditions for increasing the level of manageability of logistics processes and has an impact on national security and defense capability.

Keywords: *financial planning, support, military unit, National Guard of Ukraine, resources, budget, financial resources, efficiency.*

Statement of the problem. The existing approaches to financial support for the logistics systems of the National Guard of Ukraine (NGU) encompass a wide range of issues related to the efficient use of financial resources under conditions of martial law. At the same time, there is a need to identify ways to optimize and enhance the efficiency of using limited financial resources by military units of the NGU in response to the challenges of martial law.

Therefore, it is relevant to determine and substantiate a system of key performance indicators (KPI) for the use of financial resources in the course of activities carried out by military units of the NGU.

Analysis of recent research and publications. Issues of financial support for the logistics of military units of the National Guard of Ukraine are constantly within the focus of scientific research. In scientific work [1], considerable attention is paid to the organization of financial planning of logistics support for military units of the National Guard of Ukraine and to the management of material and technical support.

In works [2] and [3], the methodological provisions of financial planning of logistics support

for military units of the National Guard of Ukraine have been refined, aimed at improving efficiency and establishing an appropriate level of logistics. The features of the financial mechanism of a military unit of the National Guard of Ukraine are identified in article [4].

The issue of rational distribution of budgetary funds allocated to budgetary organizations, in particular military formations, by types of their activities in order to achieve the desired results is addressed in study [5]. Publication [6] notes that improving budget execution necessitates the introduction of new methods of its functioning and the organization of optimization of effective management of budgetary resources at all levels. The importance of integrating digital tools into economic practice as a means of achieving a balanced resource structure and enhancing coordination between production and distribution chains is emphasized in work [7].

The set of studies conducted focuses, in particular, on certain aspects of financial support for logistics systems, while the issue of determining the effectiveness of the selected procedures for financial support of logistics systems remains insufficiently addressed. This

indicates an insufficiently developed set of approaches to determining the effectiveness of financial support for the logistics systems of military units of the National Guard of Ukraine.

The purpose of the article is to determine and substantiate a methodological approach to the formation of effective financial support for the logistics systems of military units of the National Guard of Ukraine based on the KPI system.

Summary of the main material. The mechanism of financial support for military units, ships, military educational institutions, military commissariats (territorial recruitment and social support centers), institutions, and organizations of the Armed Forces of Ukraine financed from the State Budget of Ukraine is stipulated in the Rules for the Organization of Financial Support of Military Units, Institutions, and Organizations of the Armed Forces of Ukraine [8, 9].

The main tasks of financial support for military units are: proper and timely provision of funds to military units for the performance of their tasks; timely and full payment of monetary allowances to military personnel and salaries to employees and other payments provided for by law; ensuring the safety of cash in the military unit's cash desk; strict adherence to financial discipline; the lawful, effective and targeted use of funds and the correct documentation of financial and economic transactions; compliance with the legally established procedure for the purchase of material assets and services using budget funds; the organisation of financial planning and the determination of funding requirements to ensure the activities of the military unit, the maintenance of accounting records, and the preparation and submission of reports [8].

The correct determination of funding requirements, timely preparation of draft estimates within the limits of expenditures for the planned year, timely requesting and clarification of funding

needs with the supporting financial authority, implementation of preliminary and ongoing control of financial planning in terms of the expediency and regulatory compliance of planned expenditures, and ensuring timely, planned, lawful, targeted, and efficient use of funds and material resources are the tasks facing financial planning in a military unit [8]. Therefore, in the process of financial planning, authorized officials are obliged to determine and substantiate the need for funds for the next budget year, the volumes of revenue from economic activities and the directions of their use, and to ensure the timely, lawful, targeted, and efficient use of allocated funds for specific purposes [8].

It should be noted that the effectiveness of financial support for logistics systems is determined by the extent to which it aligns the interests of the participants in the logistics system and controls the targeted nature of the movement of budgetary funds.

The process of determining the effectiveness of the use of budgetary funds involves obtaining information on the rational and targeted use of financial resources. In other words, the primary task is the effective management of the financial resources available to an NGU military unit.

Measuring the effectiveness of any process involves establishing indicators on the basis of which the success of its implementation will be assessed. To measure the effectiveness of financial support for the logistics systems of NGU military units, it is advisable to use financial and non-financial performance indicators related to the financial support of logistics systems.

The accuracy of assessing the obtained results, the validity of managerial decisions made, and the adequacy of planned indicators depend on the correct selection of performance indicators. The main requirements for the constituent elements of the KPI system are presented in Table 1.

Table 1 – Components of the KPI System

KPI Elements			
Selected metric	Unit of measurement	Current value	Target value
Processes subject to measurement (financial, non-financial)	Unit of measurement selected for monitoring and performance evaluation [for financial metrics – quantitative indicators (number, percentage, etc.); for non-financial metrics – qualitative indicators]	Metric value recorded at the time of measurement	Desired value within the minimum–maximum permissible range of values for the defined metric

The risks that may arise from selecting inappropriate performance evaluation indicators include: the neutralization of warning signals, overlooking critical problems, distortion of conclusions, and erroneous managerial decisions.

If indicators for assessing the effectiveness of financial support for the logistics systems of NGU military units are selected improperly, there may be risks of inefficient use of budgetary funds, delays in supply, and the adoption of incorrect managerial decisions, which may lead to a decrease in the combat capability of NGU military units.

In view of the above, we propose to consider the KPI system as a system of financial and non-financial indicators that affect quantitative or qualitative changes in the expected results of financial and logistics support.

To avoid the possibility of selecting incorrect indicators, it is advisable to follow certain recommendations. The selected metrics for the financial support of logistics systems should:

- align with the goals and financial and logistics strategies within the logistics systems of the National Guard of Ukraine;
- be understandable, meaningful, and not overload the information component;
- be relevant for managerial decision-making;
- be based on the SMART principles (specific, measurable, achievable, relevant, time-bound); that is, KPIs should be grounded in reliable data, use uniform units of measurement, and be specific and clear to implement.

As stated by K. V. Melnykova [10], financial and logistics strategies are aimed at effective resource management to achieve strategic goals. Therefore, they are interrelated components of the overall strategy of the logistics system. Accordingly, to achieve maximum efficiency of supply chains, optimize costs, and increase their financial sustainability, the researcher recommends developing a financial and logistics strategy within the logistics system. This will make it possible to reduce logistics costs by optimizing financial, information, and material flows, ensure stable funding of logistics processes, and improve the financial sustainability of the logistics system.

It should be noted that the KPI system for the use of financial resources by NGU military units should be multi-level, comprehensive, and adaptable to potential changes in internal and external conditions. In the course of its development, it is advisable to avoid a fragmented approach to defining the set of constituent indicators in order to ensure the effective

functioning of the selected model of financial support for the logistics systems of NGU military units.

The procedure for developing the KPI system includes several stages.

1. Identification. At this stage, the strategic objectives of an NGU military unit or its individual subunits are determined and formulated. Key areas of activity that require measurement are identified.

2. Analysis. A detailed analysis of performance indicators identified at the identification stage is conducted in the context of financial support for logistics systems. The most significant indicators (KPIs) are selected.

3. Impact assessment. Using quantitative and/or qualitative measures, the degree of achievement of the target values of the selected KPIs is assessed.

4. Development and construction of the KPI "framework". This stage provides for the formalization of the defined KPIs, namely: setting threshold values for the proposed indicative set of KPIs; providing the formula for calculating target values.

Table 2 presents an indicative KPI "framework", the use of which will make it possible to determine the effectiveness of financial support for the logistics systems of military units of the National Guard of Ukraine. We propose to structure the KPI "framework" based on indicators grouped into the following sections.

Section 1 – "Financial planning and budget execution indicators" (reflect the assessment of the accuracy of forecasting needs and compliance with budget discipline).

Section 2 – "Resource use efficiency indicators" (reflect how rationally financial resources are used in the process of forming material support).

Section 3 – "Accountability and control indicators" (reflect the level of trust and are necessary to prevent abuses in the process of using financial resources).

Section 4 – "Informatization indicators" (show the level of use of information systems in the process of providing financial support for logistics systems).

Section 5 – "Human resource capacity indicators" (the process of forming financial support for logistics systems depends on the competencies of the specialists involved. This determines the quality, reliability, and timeliness of information on the status of financial flows, minimizes the likelihood of errors and subjective statements, and affects the effectiveness of managing financial flows in logistics systems).

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Table 2 – KPI "framework"

Indicator	Formula for calculation	Standard value	Essential characteristic
<i>Financial planning and budget execution indicators</i>			
Level of budget funds utilisation	(Funds actually used / approved budget allocations) x 100%	Close to 100% (but without overspending at the end of the period)	Shows the degree of utilisation of allocated funds
Deviation of actual expenditures from planned expenditures	(Actual expenditure – Planned expenditure/planned expenditure) x 100%	0	Identify significant deviations that require analysis of the causes
Budget execution ratio of incoming financial flows	(Actual volume of incoming financial flows/planned volume of incoming financial flows) x 100%	≥ 1 (or 100%) A value equal to or greater than one is considered optimal, indicating full implementation or over-implementation of the revenue plan	Reflects the degree of fulfilment of planned cash inflows and allows assessing the effectiveness of financial planning, the work of departments and responsible persons
Outflow financial flow budget fulfilment ratio	(Actual volume of outgoing financial flows/planned volume of outgoing financial flows) x 100%	(Actual volume of incoming financial flows/planned volume of incoming financial flows) x 100%	Characterises the degree of compliance with planned financial discipline in the area of expenditure (payments to suppliers, payment of salaries, taxes, loan repayments, etc.)
Timeliness of financial reporting	The indicator is assessed by assigning an indicator: 1 – reports submitted on time; 0 – reports not submitted on time	1 – complete timeliness	Assessment of compliance with the deadlines for submission of all necessary financial documents
Time taken to make financial decisions (from analysis to approval)	Determined separately for each decision	Reduced time expenditure indicates high efficiency and effectiveness of financial management	Shows how well-established and optimised internal organisational procedures are; allows delays and inefficient stages in the decision-making process to be identified
<i>Indicators of resource efficiency</i>			
Level of provision of departmental needs	(Number of accepted requests for material, technical and resource support / total number of requests) x 100%	≥ 100% (the optimal value is 100%, which indicates that the needs of the units are fully met. A value below 100% may indicate insufficient provision)	Demonstrates the extent to which funding covers the actual needs of military units
Percentage of expenditure on logistical support	(Support and logistics costs / total funding) x 100%	Depends on operational and strategic objectives	Shows the share of logistics support costs in the overall cost structure
<i>Accountability and control indicators</i>			
Number of financial violations detected during the year	Actual data	A low indicator indicates compliance with procedures	Measuring the effectiveness of internal and external audits

End Table 2

Indicator	Formula for calculation	Standard value	Essential characteristic
<i>Informatisation indicators</i>			
Optimisation of financial processes	Level of reduction in financial costs due to acceleration of financial flows	Reduction in financial costs	Reflects the result of optimising financial processes
Informatisation of the financial flow management process	Reduction in reporting preparation time	Decrease in the indicator compared to the previous reporting period	Reflects the process of implementing information technologies to automate the collection and analysis of input data
<i>Human resource capacity indicators</i>			
Financial flow management complexity ratio	Number of employees involved in the process of managing financial flows	Optimisation compared to the previous reporting period	Assesses the complexity of the work of the finance department (service), taking into account the complexity and volume of information on financial flows
Turnover ratio in financial flow management	(Number of employees dismissed during the reporting period / average number of employees in the financial department during the reporting period) x 100%	A value of 5–10% is acceptable for normal operation	Measures the intensity of staff turnover in departments responsible for managing financial flows
Qualification level coefficient in the field of financial flow management	Number of employees with higher education (certificates) / total number of employees	Increase in the indicator	Characterises the overall level of competence of employees involved in financial flow management

5. *Determination of efficiency.* At this stage, procedures are carried out to compare and correlate the actual values of KPI with the established standard indicators.

We propose to determine the efficiency of financial support for logistics systems depending on the resource costs required to perform the process as a result of which the result was obtained. For this purpose, we recommend using the formula

$$E = R / Z, \quad (1)$$

where E is the efficiency of the logistics process;

R is the result (useful effect) obtained as a consequence of performing an action (implementation of the logistics process);

Z is the financial resources expended to accomplish these tasks.

6. *Monitoring and further control of KPI.* The final stage involves systematic and periodic recording of KPI dynamics throughout the year (month, quarter, half-year, year), as well as using the efficiency assessment results to adjust financial

plans, obtain information on their implementation, and, if necessary, revise or update the KPI themselves.

The proposed KPI system for responsible persons contains a non-exhaustive set of indicators and may be further detailed depending on the needs of the relevant unit of NGU military units and the level of responsibility. In addition, it is advisable to review this KPI system in line with the transformation of the operational and strategic objectives of the military units of the National Guard of Ukraine.

The system of financial planning for logistics support of the military units of the National Guard of Ukraine requires continuous adaptation to dynamic changes in the conditions of day-to-day activities, especially during martial law. The use of a fragmented approach to developing indicators of financial support for logistics systems may result in a lack of a holistic view of the state of financial flows and their impact on logistics support of the military units of the National Guard of Ukraine.

Conclusion

A comprehensive approach to selecting key performance indicators for the financial support of logistics systems of the military units of the National Guard of Ukraine is proposed. The application of key performance indicators in the process of financial support of logistics systems of the military units of the National Guard of Ukraine is an important aspect of ensuring effective financial planning and logistics support, which makes it possible to create the necessary conditions for increasing the level of manageability of logistics processes and affects national security and defense capability.

Further research may be aimed at improving the tools for effective financial support of logistics systems for the practical implementation of the proposed methodological provisions.

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ВИЗНАЧЕННЯ ЕФЕКТИВНОСТІ ФІНАНСОВОГО ЗАБЕЗПЕЧЕННЯ ЛОГІСТИЧНИХ СИСТЕМ ВІЙСЬКОВИХ ЧАСТИН НАЦІОНАЛЬНОЇ ГВАРДІЇ УКРАЇНИ НА ЗАСАДАХ СИСТЕМИ КРІ

Досліджено теоретичні та практичні аспекти фінансового забезпечення систем логістики військових частин Національної гвардії України. Метою статті є визначення та обґрунтування методичного підходу до формування ефективного фінансового забезпечення систем логістики військових частин Національної гвардії України на основі системи KRI. Визначено необхідність пошуку шляхів оптимізації та підвищення ефективності використання обмежених фінансових ресурсів військовими частинами Національної гвардії України у відповідь на виклики воєнного стану.

Подано рекомендації щодо визначення та обґрунтування методичного підходу до формування ефективного фінансового забезпечення систем логістики військових частин Національної гвардії України на основі системи KRI за показниками: фінансового планування і виконання бюджету; ефективності використання ресурсів; підзвітності та контролю; інформатизації; кадрового потенціалу.

Система фінансового планування логістичного забезпечення військових частин Національної гвардії України потребує постійної адаптації до динамічних змін умов повсякденної діяльності, особливо під час воєнного стану. Використання фрагментарного підходу до формування показників фінансового забезпечення систем логістики може призвести до браку цілісної картини стану фінансових потоків та їхнього впливу на логістичне забезпечення військових частин Національної гвардії України.

Запропоновано комплексний підхід до вибору ключових показників ефективності фінансового забезпечення логістичних систем військових частин Національної гвардії України. Використання ключових показників ефективності в процесі фінансового забезпечення логістичних систем військових частин Національної гвардії України є важливим аспектом для здійснення ефективного фінансового планування і логістичного забезпечення, що дає змогу створити необхідні умови для підвищення рівня керованості логістичних процесів та впливає на національну безпеку й обороноздатність.

Ключові слова: *фінансове планування, забезпечення, військова частина, Національна гвардія України, ресурси, бюджет, фінансові ресурси, ефективність.*

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