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RESEARCH ON THE SAFETY-ORIENTED MANAGEMENT SYSTEM OF LOGISTICS ENTITIES IN THE CONTEXT OF DIGITALIZATION: PROBLEM ASPECTS AND MAIN VECTORS OF DEVELOPMENT

The article examines the concept of logistics and security system provision. And it is also substantiated that the system of safety-oriented management of subjects at logistics activity is effective when implementing the processes of financial-economic, organizational-management, regulatory-methodical, intellectual-personnel, information-analytical, technical-technological, institutional-legal components. The main vectors of development the safety-oriented management of logistics activities are distinguished: achieving high economic efficiency, stability, sustainability and other factors that determine the adequacy of resource provision in the context of safe operating conditions. On the basis of which, it was identified that the promising aspects of improving the system of safety-oriented management of logistics entities in conditions of digitalization are the improvement of resource support for the implementation of management decisions, the structural and functional level of management, the identification of basic and implementation of new management principles and standards, the introduction of innovations and leading digital technologies into the management system.

Keywords: *security, security system, security-oriented management, subject of logistics activity, management of subjects of logistics activity, digitalization, digital technologies.*

JEL classification: O13; G11

DOI: <https://doi.org/10.31649/ins.2024.3.103.108>

1. STATEMENT OF THE PROBLEM IN A GENERAL APPEARANCE AND ITS CONNECTION WITH IMPORTANT SCIENTIFIC OR PRACTICAL TASKS

In modern conditions, the implementation of a safety-oriented management system largely involves functional-structural and resource-providing changes, which are reflected in the modernization of development processes. These

changes outline certain actions and contribute to the resolution of specific and strategic tasks. Logistics entities that do not improve their safety-oriented management systems are unable to develop and compete, especially in the context of digitalization. This is the primary difference between a safety-oriented management system, which involves the use of active strategic development concepts, and a current management system, which focuses on solving

operational tasks and existing trends. With the active spread of technologies, the functioning of logistics entities is effective when a model of sustainable use of entirely new management approaches is adopted, focusing on enhancing safety and digitalization.

2. ANALYSIS OF LATEST RESEARCH AND PUBLICATIONS

The improvement of the safety-oriented management system and the implementation of digital technologies have become crucial not only for functioning or development but also for maintaining the ability to participate in and influence market trends. Such interpretations have been expressed by scholars such as V. Alkema, O. Vivchar, T. Vasylytsev, O. Kaban, O. Kyrychenko, A. Polyanska, R. Syvak, N. Tarnavska, I. Yavorska, and others.

3. SELECTION OF PREVIOUSLY UNSOLVED PARTS OF THE GENERAL PROBLEM TO WHICH THIS ARTICLE IS DEDICATED

At the same time, the high dynamics of market relations emphasize the need for constant search for new, more effective and efficient ways to improve safety-oriented management in the context of digitalization. The business environment, particularly in the logistics sector, is also changing, which deepens the narrowing of scientific and practical provisions for improving safety-oriented management.

4. FORMULATION OF THE PURPOSES OF THE ARTICLE

The purpose of the work is to scientifically substantiate the main vectors for improving the safety-oriented management system of logistics entities in the context of digitalization. The improvement of the safety-oriented management system is the foundation for developing future activity plans. Enhancing the objectivity of this process requires considering not only the fulfillment of planned indicators but also their subsequent consequences. At the same time, the substantiation of planning aspects should be carried out both at the stage of justification and after their implementation, taking into account specific conditions of resource provision. This allows for an objective assessment of not only work results but also the quality level of management policy. Additionally, the use of electronic systems is intensifying, providing

necessary active support in making and implementing safety-oriented management decisions. All this should be considered as prerequisites for the rational determination of directions for improving the safety-oriented management system of logistics entities in the context of digitalization [3, c. 248].

5. PRESENTATION OF THE MAIN MATERIAL OF THE RESEARCH WITH FULL JUSTIFICATION OF THE OBTAINED SCIENTIFIC RESULTS

Undoubtedly, planning is a fundamental element of management, the content of which involves determining future sequential changes. Such changes for logistics entities primarily concern resource provision. In particular, under conditions of active economic system reform, special attention is needed to ensure the financial resources of logistics enterprises, which are a primary means for creation and operation and are an essential condition for safety. In many cases, having sufficient material, technical, and human resources, logistics entities are unable to operate due to a lack of financial resources. This problem is most acute at the level of small and medium-sized businesses both during the formation of initial capital and in the subsequent functioning in the market. Such trends are significantly conditioned by the need to strengthen technological potential and use modern digital technologies, which require large-scale capital investments. Thus, the safety of functioning and development of a logistics enterprise is related to the processes of readiness to form competitive potential, the components of which will be basic resource provision and the implementation of innovations and technologies.

We believe that the main starting point in solving the problem of ensuring the safety of logistics entities is taking into account the generally accepted patterns of stability and resilience of entrepreneurship. This problem can be solved for domestic logistics entities if the peculiarities of the modern Ukrainian economy are considered when improving management policy. Under martial law and the critical impact of hybrid threats, domestic business must rely only on its own resources, and the use of modern technologies is necessary to ensure competitiveness. All this creates a precedent where the preservation of functioning is measured by the ability to establish safety-

oriented management based on the principles of technologization and digitalization [2, c. 333].

It should be noted that the composition of resources of domestic logistics enterprises is limited. This situation is due to the difficulty of access for domestic business, including in the logistics sector, to the resource and technology market, which has significantly narrowed due to the full-scale military invasion. Therefore, the formation of resources of logistics enterprises is carried out by creating authorized capital, the sources of which are the contributions of founders. Certainly, the funds of the latter are also limited. However, in such a rather critical situation, entrepreneurial activity management should be reduced to a continuous process of information processing, its analysis, and further development and adoption of safety-management decisions based on the results of analytical work.

In addition to financial support, the components of vectors for improving the safety-oriented management system of logistics entities, considering the growing influence of digitalization, should include:

- organizational and management support, which involves the establishment of an internal electronic document management system to accelerate the transfer of management information and the final implementation of management decisions;

- normative and methodological support, which is important in adapting business activities to new standards and requirements, mainly related to the implementation of digital technologies;

- intellectual and personnel support, which is essential in the development of innovative solutions and proposals, for which the staff will be appropriately rewarded, increasing productivity, efficiency, and professional qualification levels;

- information and analytical support, the reliance on which is growing, as there is always a need for high-quality database formation to make safe and rational management decisions;

- technical and technological support, as a complex of technical means, software, and hardware, and other tools for information processing;

- institutional and legal support, as a set of internal documents regulating the process of accumulating and directing resource capital [1, c. 170].

The formation of a safety-oriented concept for logistics entities involves defining strategies in terms of business areas, product (work and service) nomenclature, sales markets, growth directions of economic indicators, and more. Here, the main challenge in developing efficiency indicators that summarize the nature of safety-oriented management is measuring and subsequently comparing the effect of implementing such management decisions. It should be noted that determining the economic efficiency of the safety-oriented management system without linking it to the final results of the enterprise's activities does not yield the desired outcomes.

It is important that for the success of a logistics entity as an open system and its survival in the conditions of digitalization, it is not enough to have the potential for profitable operation and development. To realize this potential, the logistics enterprise must be internally efficient. Internal efficiency can be represented by indicators that characterize the effectiveness of the main subsystems of safety-oriented management, which should include economic, organizational, technical-technological, scientific-technical, social, and information-technical subsystems [5, c. 195].

The direct impact of internal efficiency on the success of logistics entities as a whole becomes apparent only in the presence of defined external conditions – a high level of digitalization of the market environment. It is clear that with increasing competition, the situation changes, and success, as well as the enterprise's effectiveness and competitiveness, directly depends on how well its management system can ensure the necessary level of safety and meet digitalization conditions.

The task of a logistics entity, as well as enterprises in other types of economic activity, in today's digitalization conditions is to increase internal efficiency, which ensures the rational use of all basic resources (material, labor, financial) based on the effective operation of all management subsystems. Therefore, the evaluation of the effectiveness of the logistics enterprise management system should be conducted based on a safety approach, which determines the limiting parameters of the efficiency of each management subsystem [4, c. 55].

For a long time, it was believed that the safety-oriented management system could be represented solely by the organizational structure of the management apparatus. With the establishment and development of digital relations, the modernization of the marketing environment, and the development of new vectors of scientific thought, the number of components of safety-oriented management has increased. The previously presented list of subsystems defines the basic guidelines for safety-oriented management and can be expanded under the condition of market digitalization.

We believe that in improving the safety-oriented management system of logistics entities in the context of digitalization, it is necessary to adhere to the following principles: focusing on the targeted nature of investment resource attraction; deepening the optimization of the need for credit resources and rationalizing the terms of their use; optimizing the ratio of borrowed and own sources of financing for the functioning and development of business activities; increasing the efficiency of resource use and gradually raising its level; ensuring stability and consistency in improving financial, economic, and other indicators; meeting the conditions for attracting investment resources and using them effectively [6, c. 112].

Given that resource provision is the most important factor in financial and economic growth, the modernization of management should be regarded as the leading characteristic of the entire complex of measures aimed at improving the safety of logistics entities. In this regard, the transition to new rules and standards in safety-oriented management requires the systematization and addition of applied ideas about the processes of reorganizing the resource provision system, identifying its shortcomings, and determining ways to eliminate them.

The ability of a logistics entity to maintain safety depends on the effectiveness of managing the processes of modernization and renewal of its tools. Well-organized safety-oriented management is essential for their successful operation in a highly competitive environment. It is important here to define the procedures for modernizing business activities, which requires significant attention to the modernization of resource management tools. Therefore, we propose considering the following stages of

resource provision for the processes of modernization and renewal of the safety-oriented management system of logistics entities:

- setting goals and objectives that must be successfully achieved in the context of establishing safety-oriented business management;
- making managerial decisions on resource formation and their efficient use, with the mandatory involvement of digital technologies;
- analyzing the results of managerial decisions in terms of possible ways to improve their quality, as well as considering the likelihood of risks and threats and determining ways to effectively prevent, minimize, and completely overcome them [7, c. 25].

The main task of safety-oriented management for logistics entities is to achieve a resource balance of expenditures related to the implementation of the economic and social development plan, ensuring the prerequisites for financial stability, creditworthiness, and solvency.

It is known that carrying out economic activities provided by the economic and social development plan is associated with expenses for forming fixed and working capital, covering current costs, making capital investments, and implementing social and cultural measures. Therefore, the main sources of covering these expenses are the entity's own monetary receipts, funds of financial resources, bank loans, or other creditor debt. Since the volume of activity, expenses, and sources of their coverage are closely interconnected and cannot be arbitrary, logistics entities must determine an economically justified need for financial resources by areas of their use, optimize the final financial and economic results, and correlate the projected expenses with justified monetary receipts in the process of safety-oriented management. It is clear that logistics entities must achieve a resource balance of expenditures with the aim of ensuring financial stability, solvency, and creditworthiness. This can be achieved through profitable activities, an adequate volume of financial resources, a significant share of own funds, and efficient use of current capital [8, c. 89].

Thus, in the process of improving the safety-oriented management system of logistics entities in the context of digitalization, the following tasks must be performed:

- determining the breakeven point based on the projected volume of current business activities and the optimal final financial and economic results that ensure self-sufficiency and self-financing in a digital environment;
- analyzing the need for working capital necessary to ensure the projected volume of business activities and readiness to implement digital technologies;
- determining the optimal structure of sources for forming working capital in balance with current assets that would meet the main criteria of financial stability, solvency, and creditworthiness;
- identifying possible risks of non-fulfillment of the projected activity volumes, slowing the turnover of working capital, and reducing the rate of stock growth;
- developing alternative options for efficient use of material, labor, and financial resources, taking into account possible risks and changes in market conditions;
- determining the total need for funds for capital investments and aligning it with economically justified sources of coverage based on highly efficient use and active implementation of digital technologies;
- justifying the financial and economic capabilities and main directions for using funds intended for social and cultural purposes to

enhance security and technical-technological support.

6. CONCLUSIONS FROM THIS RESEARCH AND PROSPECTS FOR FURTHER EXPLORATION IN THIS DIRECTION

Improving the safety-oriented management system of logistics entities in the context of digitalization involves the use of various tools, and a comprehensive approach should be taken in determining their list and prioritization. Considering the industry, market, and other specific features of logistics activities, the safety-oriented management system of enterprises should be improved in the following areas: improving resource provision for the implementation of managerial decisions; modernizing the structural-functional vision of management; adhering to basic and implementing new management principles and standards; and introducing innovations and leading digital technologies into the management system. Future research prospects relate to identifying mechanisms for improving the safety-oriented management system of logistics entities, which involve technical-technological, financial-economic, investment, and other business changes.

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Анотація

ШАТАРСЬКИЙ Артур, БОГДАНЕЦЬ Тарас, ТРІЛЬ Микола, ЗАСАДНЮК Василь Дослідження системи безпекоорієнтованого управління суб'єктів логістичної діяльності в умовах діджиталізації: проблемні аспекти та основні вектори розвитку

У статті досліджено поняття логістики та забезпечення системи безпеки. А також обґрунтовано, що система безпекоорієнтованого управління суб'єктів логістичної діяльності є ефективною при імплементації процесів фінансово-економічної, організаційно-управлінської, нормативно-методичної, інтелектуально-кадрової, інформаційно-аналітичної, техніко-технологічної, інституційно-правової компонент. Основними векторами розвитку безпекоорієнтованого управління логістичною діяльністю виокремлено: досягнення високої економічної ефективності, стабільності, стійкості та іншого, що визначає достатність ресурсного забезпечення в контексті безпекових умов функціонування. На основі чого виокремлено, що перспективними аспектами вдосконалення системи безпекоорієнтованого управління суб'єктів логістичної діяльності в умовах діджиталізації є удосконалення ресурсного забезпечення реалізації управлінських рішень, структурно-функціонального рівня управління, ідентифікація базових та впровадження нових принципів і стандартів управління, впровадження інновацій та провідних цифрових технологій в систему управління.

Ключові слова: безпека, система безпеки, безпекоорієнтоване управління, суб'єкт логістичної діяльності, управління суб'єктами логістичної діяльності, діджиталізація, цифрові технології.

Стаття надійшла до редакції 06.09.2024 р.

Бібліографічний опис статті:

Shatarskyi A., Bohdanets T., Tril M., Zasadniuk V. (2024) Research on the safety-oriented management system of logistics entities in the context of digitalization: problem aspects and main vectors of development. *Innovation and Sustainability*, no. 3, pp. 103-108.

Шатарський А., Богданець Т., Тріль М., Засаднюк В. Дослідження системи безпекоорієнтованого управління суб'єктів логістичної діяльності в умовах діджиталізації: проблемні аспекти та основні вектори розвитку. *Innovation and Sustainability*. 2024. № 3. С. 103-108.

