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FORMATION OF THE SECURITY ENVIRONMENT THROUGH MINIMIZATION OF THE NEGATIVE IMPACT OF THREATS IN THE SOCIO-ECONOMIC SYSTEM

ABSTRACT

The relevance of the chosen topic is due to the importance of the security environment in the framework of improving the management efficiency of such a socio-economic system as the state and its regions. The main purpose of the article is to substantiate the main ways of forming the security environment of the socio-economic system in the context of minimizing the main threats. The scientific task is to highlight the environment of the socio-economic system in Ukraine; establishing possible links between hazards. The object of the study is the threat to the system of formation of the security environment in Ukraine. The article uses the method of hierarchical ordering, which makes it possible to increase the efficiency of management in the framework of the formation of a security environment by counteracting the main threats. The main result of the study is a hierarchical ordering of threats to the formation of a security environment in Ukraine. The proposed approach to the allocation of strategic, tactical and operational management of counteracting the main threats to the formation of the security environment in Ukraine can be considered innovative. The study is limited by taking into account not all aspects of public administration and security aspects. Prospects for further research should be devoted to expanding the security of public administration efficiency.

Keywords: security, security environment, management, socio-economic system, model, matrix

JEL Classification: F52, H56

INTRODUCTION

The changes that have begun in the global security environment, the emergence of new and the strengthening of traditional threats have actualized the issues of the imperfection of existing security systems, and their inconsistency with new conditions. So, the question arose of the need to acquire new characteristics for national security systems, which would give states the ability to independently counter threats and dangers of any nature and origin. Within the framework of this approach, the role of "strong" states was to change in order to ensure the direct protection of "weak" states to assist them in developing the ability to adapt to changes in the security environment and independently counter threats. In essence, the question arose about the development of the stability of the state.

The level of efficiency of the security systems of any country is determined by the level of development of the economic system. The current situation in which Ukraine found itself indicates that in the process of forming the economic system of the state, it was not considered as the main component of security, the threats that constantly arose both inside and outside were ignored. Today, the problem of Ukraine's economic security is decisive in the context of the existence and development of Ukraine as a sovereign state. Therefore, today the economy should be considered primarily as a mechanism for ensuring the territorial integrity of the state, as a defining component of the national security system.

So, the security environment is based on two components: external (visible) and internal (invisible, spiritual), which determine the corresponding characteristics of criminogenic states, acting on the principle: "When a person is destroyed, his intra-spiritual essence, everything around it is destroyed, degraded ". The sphere of external influence includes, first of all, consumers and generators of relevant security services in the concept of "man - state". We are talking primarily about suppliers and intermediaries, competitors and parasitic hindering the normal functioning of society. The environment of spiritual influence will also depend on the prevailing life situations (economic and political factors). We are talking about socio-demographic characteristics in the development of pious states, natural and climatic conditions and indicators that directly affect the essence of law, general innovation and progress in technical fields.

The safe existence of society (safe environment) in the context of a growing social crisis, global challenges and threats requires monitoring of criminogenic processes (situations) and threats to the national security system, which determines the parameters of an appropriately safe environment. Concepts of the security component are constantly changing, depending on the challenges of world economic and political changes. The world in the 21st century is evolving, radically transforming, when everyone is in the relationship between the global and microenvironment. The normal structuring of any activity with the development of algorithms, strategies and tactics of action is an immediate condition for the success and effective functioning of the industry, when there is a constant restructuring in accordance with the factors (determinants) of actions, which is based on adherence to certain values, adherence to life postures - these or principles in the conceptual interaction of many social processes, including when it comes to established ideologies, the strategic orientation of initiatives, or even the sphere of the spiritual (which, from the standpoint of science, is called the metaphysical, esoteric perception of the world). All such processes are directly reflected in the overall structure of management.

LITERATURE REVIEW

As noted Shtangret, etl.al. (2021); Kryshtaniovych et.al. (2023); Abramova et.al. (2022) in modern conditions, the issues of rapid adaptation to changes in the conditions of military globalization are important; transformation of habitual ideas about war; the importance of the security component in the formation of a democratic state. The essence of security should be considered as the basis for understanding the essence of the function of the state. It is the basis of security that is the basis for state intervention in the life of society. The implementation of the functions of the state is permanent, systematic and occurs throughout the entire existence of objectively determined tasks facing the state. They arise, are carried out and develop in accordance with the tasks that the state has to perform in specific historical conditions. So, as part of such a main function of the state as the defence of the country, a number of its non-core functions can be distinguished: strengthening the armed forces, developing scientific and technological progress to provide them with weapons, and ensuring the appropriate proportions of military and civilian production.

As noted Dzobelova, etl.al. (2020); Kryshtaniovych et.al. (2021); Gorban et.al. (2022) What is a security environment? The security environment is closely related to the concepts of national and international security, which answer questions about the tools and mechanisms at the disposal of governments and international organizations to ensure order and the realization of interests [6-8]. On the other hand, the security environment is not the visions or strategies of political actors, but an objective state of affairs generated by social interaction as well as processes independent of society. The factor influencing the security environment is, in particular, the competition of states for the implementation of various models of national and regional security. The security environment is a dynamic phenomenon. It changes, creating risks and threats, or vice versa - creating advantages and opportunities for the actors in it. In this regard, the security environment is analyzed, its development is predicted, and attempts are made to influence its formation.

Thus, as noted by Al Azzam (2019); Saleh et.al. (2020); Shakhathreh (2023) describes that there is a need to respond to threats and crises requires the presence of appropriate actors, abilities and mechanisms that can ensure adaptation to changes and effectively overcome dangerous phenomena and crises in various fields. It should also take into account the need to combine within the corresponding concept of two differently directed processes, which are movement and immutability. This means that certain system characteristics and processes taking place in the state and society must remain unchanged, while others may change markedly while maintaining the integrity and functionality of the main objects. At the same time, the main constant values can be, in particular, the following: the need to preserve national values and protect national interests, ensuring the continuity of the provision of critical functions by the state to the population and the normal functioning of society and the state. Dynamism is determined by the need for a timely and effective response to rapid environmental changes, new challenges and threats, and the ability to adapt to their permanent or long-term effect. In accordance with these settings, the goal of ensuring national sustainability can be determined.

As noted by Sylkin, et.al. (2021); Tytykalo et.al. (2023); Kuznyetsova et.al. (2021); Rekenenko et.al. (2022), in the process of forming the stability of the state and society as the main objects and their subsystems, it is important to realize which elements/characteristics of them, when adapting to changes in the security environment, should remain unchanged in order to ensure their integrity and/or ability to perform the main function, and which can be changed, supplemented or withdrawn to achieve certain goals and ensure development in difficult conditions.

Hazards and threats are essential elements of the functioning of various complex systems: environmental, biological, social, and technical. For social systems, the realization of various dangers is closely connected with the functioning of military-political, economic, and social mechanisms and structures characteristic of a certain stage of socio-economic development. Throughout the entire historical stage of the formation of civilization, security has been the same need for a person and society as a whole, like the need for water, food, and housing. As noted Iskajyan, et.al. (2022); Marhasova et.al. (2022); Kuznyetsova et.al. (2022); Tulchynska et.al. (2021) the peculiarity of security lies in the fact that security creates conditions for the satisfaction of other basic needs. In history, there did not exist and do not exist universal means of preventing certain threats and at the beginning of the 21st century the problem of ensuring security remains central among other problems of civilizational development.

AIMS AND OBJECTIVES

The main purpose of the article is to substantiate the main ways of forming the security environment of the socio-economic system in the context of minimizing the main threats. The scientific task is to highlight the environment of the socio-economic system in Ukraine; establishing possible links between hazards. The object of research is such a complex socio-economic system as the state and its management system.

METHODS

The methodology of the article is based on a systematic approach, within which the following methods are applied: induction and deduction, comparison and systematization - to study the essential characteristics of the formation of a security environment; analysis and synthesis - in the study and definition of the main aspects of the formation of the security environment of socio-economic systems; modelling - in the development of a structural model for information support of aspects of the formation of the security of the environment of socio-economic systems. For this, the DFD method was applied; graphic - for visual display of the results of the study; abstract-logical - when carrying out theoretical generalizations and forming appropriate conclusions.

RESULTS

The strategic analysis of the security environment is designed to determine the processes, phenomena, factors, conditions, circumstances, events, results of activities and interactions of subjects of public relations, as well as trends in their development that affect the level of protection of the state, society, environment in a certain area from existing and predicted threats. Changes to the security environment that deviate from its normal equilibrium state contain risks that are subject to further analysis. According to the results of the primary analysis of the habitat, the identified risks can be divided into those that can transform into threats and those that create new opportunities for the development of the state and society. Note that in international ISO standards, the risk is characterized as the effect of uncertainty on expected results.

Shortly before the start of a full-scale war launched by the Russian Federation against Ukraine on February 24, 2022, our country completed the preparation of sectoral security strategies as part of a new cycle of strategic planning, which began with the adoption in 2020 of a new edition of the National Security Strategy of Ukraine. The documents identified a wide range of threats to national security in different areas. At the same time, the results of an in-depth analysis of such threats suggest that there were not too many sources of their occurrence.

The source of threats to national security associated with the ineffectiveness of the international security system turned out to be especially dangerous for Ukraine, since the existing mechanisms for protecting peace and security guarantees, including those under the Budapest Memorandum, did not prevent the Russian Federation from committing hybrid aggression against Ukraine for years, and on February 24, 2022, to start a full-scale war. Among other sources of risks and threats to the national security of Ukraine, the following can be identified: climate change, the development of science and technology, and the promotion of interests by other states that are contrary to the national interests of Ukraine. These sources of risks and threats are typical for most states, and it is impossible to eliminate them completely. Consequently,

when forming state policy in the field of ensuring national security, states must find tools to adapt to the constant action of such threats. This approach presupposes the strengthening of national resilience.

It should be noted that the confrontation of Ukraine in the war activated the strengths of the state and society, in particular, coherence and unity in relation to democratic values and national interests. This made it possible to quickly eliminate some vulnerabilities. First of all, we are talking about shortcomings in the sphere of information policy of the state and the weakness of the system of strategic communications. Thanks to the effective coordination of relevant activities and the unification of the efforts of the state, society and business, Ukraine has managed to gain significant advantages in the information war and ensure the dissemination of truthful information about the events currently taking place in the country in the world. Other strengths of the Ukrainian state and society include the well-formedness of the legislative framework, which provides for the mechanisms of government both under normal conditions and under conditions of emergency and martial law. This largely guarantees the continuity of government, which is one of the key areas for ensuring national security and sustainability. In addition, the Law of Ukraine "On the Foundations of National Resistance", adopted in 2021, laid the foundation for the organization of territorial defence, which played an important role in ensuring the protection of the state in the current war. In particular, in this way, the principle of subsidiarity, which is one of the keys to the formation of national sustainability, was implemented. This has made it possible to significantly improve the effectiveness of the response to military threats at the local level and to establish proper coordination at all levels.

During the ongoing war in Ukraine, certain plans, connections, and ideas have passed or have not passed the test of strength and viability. Given the ongoing significant changes in the security environment in Ukraine after the war, a new process of strategic planning and updating of the state's strategic documents in the field of ensuring national security and development as an independent, free, strong democratic state should be launched. Important for ensuring the national security of Ukraine in the post-war period will be such areas of state policy as increasing the level of defence capability and readiness to respond to crises, obtaining external security guarantees outside NATO, developing bilateral relations with strategic partners, restoring the economic and human development of Ukraine, improving the efficiency of state management.

The problems identified during the spread of COVID-19 were evidence of the imperfection of the crisis management system in Ukraine, as well as the presence of significant vulnerabilities in various areas (primarily healthcare, biosecurity, economics, etc.). This actualizes the need for Ukraine to take measures to strengthen national resilience on a systematic basis in order to form the ability of society and the state to counter threats of various origins, quickly adapt to changes in the security environment, maintain sustainable functioning, and quickly recover from a crisis to an optimal balance under certain conditions.

The imperfection of the mechanisms for organizing and coordinating actions at the national, regional and local levels in the field of crisis management contains significant risks for managing the main areas of ensuring the life of the state and society in conditions of uncertainty and rapid changes in the environment.

We single out the following threats to the security environment of the socioeconomic system in Ukraine:

- 1. Leakage" of intelligence abroad.
- 2. Reduced food security.
- 3. Military aggression of the aggressor country.
- 4. Hacker attacks on key areas of activity.
- 5. Destruction of the energy infrastructure by the aggressor country.
- 6. "Shadowization" of the economy.
- 7. Danger to the life and health of the civilian population.

The security environment is complex and is affected by a significant number of threats. Those that were allocated by us are only one of the parts. The appropriate ranking should be made of which should be responded to and which should not. The hierarchical ordering method will help us with this. Further, according to the chosen methodology, we present the results of calculations of the dependency and reach matrix (Table 1).

Table 1. Matrix of basic calculations.

| Reachability | | | | | | | |
|--------------|----------|----------|----------|----------|----------|----------|----------|
| | Threat 1 | Threat 2 | Threat 3 | Threat 4 | Threat 5 | Threat 6 | Threat 7 |
| Threat 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| Threat 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| Threat 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Threat 4 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| Threat 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Threat 6 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Threat 7 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

| Addiction | | | | | | | |
|-----------|----------|----------|----------|----------|----------|----------|----------|
| | Threat 1 | Threat 2 | Threat 3 | Threat 4 | Threat 5 | Threat 6 | Threat 7 |
| Threat 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| Threat 2 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| Threat 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Threat 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Threat 5 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| Threat 6 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| Threat 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

If there is a certain dependence of one threat to another (or influence), then "1" applies, if not, then "0". Such a numerical explanation is better displayed than a simple "Yes or no". On the main calculations presented in Table 1, we can form a graph of probable links between hazards (Figure 1).

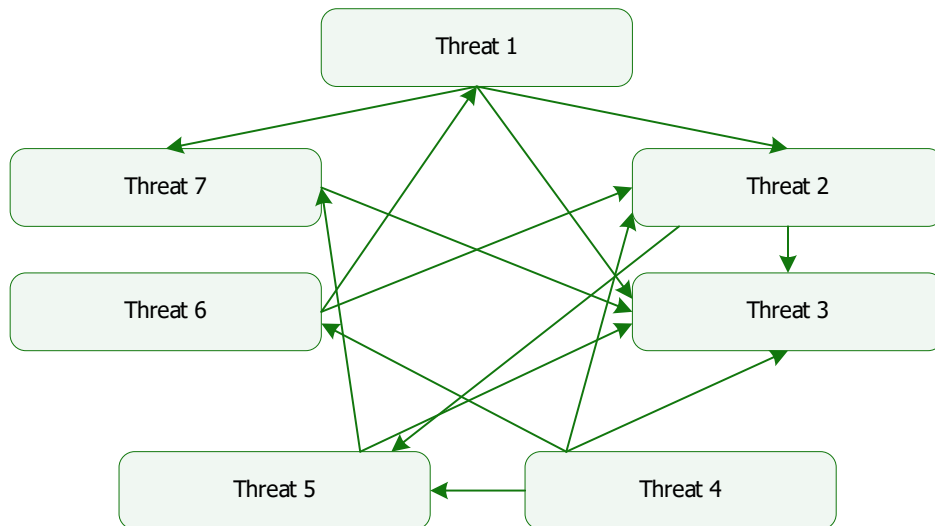


Figure 1. The graph of probable links between threats.

When subsets of one threat intersect with another or its predecessor, we get a new subset. At the same time, the threat subset of which is not reached from any remaining peak and will determine the level of the hierarchical ordering of the threat's effect on the formation of the security environment of the socio-economic system. By passing intermediate calculations, we obtain a hierarchical ordering of the effect of the threat on the formation of the security environment of the socio-economic system (Table 2).

Table 2. Hierarchical ordering of the threat effect on the formation of the security environment of the socio-economic system.

| Formation of the security environment of the socio-economic system | Strategic countermeasures that do not require a quick response and all resources | | Tactical countermeasures involving a large number of resources | | | Operational countermeasures involving all resources | |
|--|--|----------|--|----------|----------|---|----------|
| | 1 level | 2 level | 3 level | 4 level | 5 level | 6 level | 7 level |
| | Threat 4 | Threat 6 | Threat 1 | Threat 2 | Threat 5 | Threat 7 | Threat 3 |

The main result made from the presented Table 2 is that it is threats 7 and 3 that should be given priority attention and require a negative response. The use of modern modelling methods and technologies in the framework of the formation of a security environment - all this makes it possible to increase the reliability of the results obtained, as well as to form a broad evidence base for further analysis. In conditions of rapid and unpredictable environmental changes, the overall threat picture is of much less value than the typologies developed on its basis, multicriteria matrices, catalogues of models and scenario forecasts. They are necessary for further definition of protocols for coordinated actions to respond to threats of various natures and origin, as well as planning appropriate measures.

DISCUSSION

In the discussion, it should be noted that in today's globalized society, the negative consequences of globalization affect the state, which has remained outside the space of the developed countries of the world. Ukraine is located at the crossroads of countries benefiting from globalization and those experiencing its negative consequences. The impossibility of rapid integration of Ukraine into the European Union turns it into a springboard for sorting out relations between the West and the East. The situation of uncertainty in which Ukraine finds itself dictates its own rules of the game, according to which the state must balance and implement a consistent policy. But Ukraine still does not pursue it intensively enough and consistently succumbs to external pressure and loses its position. In the context of the destabilization of the international security space, this increases the likelihood of security risks being realized. The processes of globalization affect the security and defence policy of the leading countries of the world, which sets the task for our state to determine the nature of modern challenges and threats to its national security. In today's conditions, Ukraine is faced with contradictions, namely, the interests of the formation and strengthening of statehood in the country require the intensification of the processes of cultural revival and the development of national identity, but the process of modernization of the socio-economic system requires the country's openness, as a result of which society becomes an object of political, economic, social and Cultural Influences A significant difference in today's international security environment is the fact that nations today face risks and dangers rather than enemies, which is a huge shift in their own nature.

As part of the discussion, it should be noted that the modern security environment is becoming more aggressive in relation to the state and society, and destructive influences on them have more destructive power, the creation of an additional complex mechanism, the functioning of which is aimed at strengthening the stability of these system-forming objects, seems justified in the context of ensuring their security and further development under conditions of uncertainty. Such a complex mechanism is a system for ensuring national sustainability, the formation of which in practice should take into account fundamentally important theoretical conclusions and patterns within the concept of national sustainability.

Other authors like Iskahyan, etl. Al. (2022); Dubyna et.al. (2022); Sylkin et.al. (2021); Tiutiunyk et.al. (2021), approach the formation of a security environment through a systematic approach and form the appropriate security management systems. Other ideas arise from the presentation of mechanisms for the formation of a security environment. Here, discussing our results, it should be noted that we have come to a methodical approach and threats. We believe that shaping a security environment begins with countering threats, and this cannot be done without ordering them.

Discussing the results obtained by us, it should be noted their innovativeness. The innovativeness of the results of the study is presented in the form of a proposed methodological approach to information support for the formation of a safe environment for the socio-economic system in terms of increasing efficiency and its management. In contrast to such findings as Bulatova et.al. (2020); Kryshchanovich et.al. (2023); Silkin et.al. (2020), we not only listed the main threats but also properly organized them with the appropriate ranking.

Separately, when discussing the prospects for further research, it should be noted that the ideas of determining long-term trends in the development of the global and regional security environment, assessing their impact on national security and sustainable development of Ukraine should be further developed.

CONCLUSIONS

Summing up, it should be noted that in today's globalized society, the negative consequences of globalization affect the state, which has remained outside the space of the developed countries of the world. Ukraine is at the crossroads of countries benefiting from globalization and those experiencing its negative consequences. The impossibility of rapid integration of Ukraine into the European Union turns it into a springboard for sorting out relations between the West and the East. The situation of uncertainty in which Ukraine finds itself dictates its own rules of the game, according to which the state must balance and implement a consistent policy. But in recent years, Ukraine has still not carried out it intensively and consistently enough and has been constantly subjected to external pressure as part of the formation of a security environment. In the context of the destabilization of the international security space, this made it possible to increase the likelihood of the realization of security risks. The processes of globalization have a direct impact on the security and defence policy of the leading countries of the world, which sets the task for our state to determine the nature of modern challenges and threats to its national security. In today's conditions, Ukraine is faced with contradictions, namely, the interests of the formation and strengthening of statehood in the country require the intensification of the processes of cultural revival and the development of national identity, but the process of modernization of the socioeconomic system requires the country's openness, as a result of which society becomes an object of political, economic, social and Cultural Influences A significant difference in today's international security environment is the fact that nations today face risks and dangers rather than enemies, which is a huge shift in their own nature.

As a result, the main threats to the security environment of such a socio-economic system as the state and its management were presented. But simply counting them is not enough. Basically, the idea behind this ordering was to prioritize their importance. This was achieved through the definition of their connections and dependence on each other. Further, having properly put it in order, we proceeded to the division of control systems: strategic, tactical and operational.

It should be noted that we have proposed not to implement all possible measures to manage the security environment as a whole. As a result, we propose to arrange the threats in such a way as to divide the control system into strategic, tactical and operational. This will better allocate resources to building a security environment. As a result of the study, a structural model of information support was presented for the formation of a security environment for a socio-economic system in terms of increasing efficiency and its management. The study is limited by taking into account not all aspects of state management and security. Prospects for further research should be devoted to expanding the security of state management efficiency.

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ФОРМУВАННЯ БЕЗПЕКОВОГО СЕРЕДОВИЩА ШЛЯХОМ МІНІМІЗАЦІЇ НЕГАТИВНОГО ВПЛИВУ ЗАГРОЗ У СОЦІАЛЬНО-ЕКОНОМІЧНІЙ СИСТЕМІ

Актуальність обраної теми зумовлена важливістю формування безпекового середовища в контексті підвищення ефективності управління такою соціально-економічною системою, як держава та її регіони. Основною метою статті є обґрунтування основних шляхів формування безпекового середовища соціально-економічної системи в контексті мінімізації основних загроз. Науковим завданням є визначення безпекового середовища соціально-економічної системи в Україні, установлення ймовірних зв'язків між загрозами. Об'єктом дослідження є загрози системі формування безпекового середовища в Україні. У дослідженні використано метод ієрархічного впорядкування, який дозволяє підвищити ефективність державного управління в рамках формування безпекового середовища через протидію основним загрозам. Основним результатом дослідження є ієрархічне впорядкування загроз формуванню безпекового середовища в Україні. Інноваційним можна вважати запропонований підхід до виокремлення стратегічного, тактичного й оперативного управління протидією основним загрозам формування безпекового середовища в Україні. Дослідження має обмеження у вигляді врахування не всіх аспектів державного управління й аспектів безпеки. Подальші дослідження слід присвятити розширенню безпекових аспектів забезпечення ефективності державного управління.

Ключові слова: безпека, безпекове середовище, управління, соціально-економічна система, модель, матриця

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