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METHODOLOGY FOR DEVELOPING A SECURITY ENVIRONMENT

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Abstract: *The research conducted in this article is a substantiation of the method for strategic management of the development of the Ukrainian border security environment. The essence of the method is to determine the phases for the current state and the projected period for particular sectors of the state border, depending on their inherent characteristics, further selecting the concept of border security on this basis, establishing the type of barriers and criteria for ensuring border security that are appropriate for use. Further application of the methodology involves conducting a SWOT analysis for particular sectors of the state border, which identifies the strengths and weaknesses of the internal environment, opportunities and threats inherent in the external environment, and the formation of possible strategies for ensuring border security in three variants of organizing activities (in the conditions of day-to-day activities, a complication of the situation and martial law). Based on the results of the analysis and the illustrative example, it can be concluded that the proposed method for strategic management of the development of Ukraine's border security environment is one of the possible effective mechanisms in the activities of the subjects ensuring Ukraine's border security.*

Keywords: *SWOT Analysis; Security Environment; Concept; Method; National Security; Border Security; Strategy*

INTRODUCTION

Currently, the Ukrainian people and state are facing the most significant threat that can arise on the path of historical development, i.e., the threat of Ukrainian statehood and nation destruction. In the context of martial law, which was introduced in the country on February 24, 2022, the sense of protecting state sovereignty, territorial integrity, democratic constitutional order, and Ukraine's other national interests from actual and potential threats has become particularly important. Many of these threats are systemic and require appropriate active counteraction.

The possibilities of Ukraine's development during martial law and the postwar period are directly related to the awareness of the individual, society, and the state of the need to create a living environment with a sufficient degree of security. This factor is essential within the border area of Ukraine, which is adjacent to the border areas of other states.

The development of the security environment is a process of targeted consolidation of efforts of various state institutions, civil society, and the international community. For example, the importance of the development of the state's security environment and the attention paid to it by the

Ministry of Internal Affairs of Ukraine (MIA) and the Administration of the State Border Guard Service of Ukraine (SBGS) is evidenced by the following.

In March 2023, the MIA launched a project to develop a regulatory legal act (RLA) on the formation of the security environment. The SBGS was also involved in its implementation. In particular, the Administration of the State Border Guard Service has developed proposals for the establishment of a working group to develop a draft RLA and a working subgroup on public security and civil protection to assess the state of the security environment, identify processes, factors, and threats that affect the security environment, their possible consequences, and identify risks in the activities of the MIA system.

The next step in this direction was the development of the Plan of Practical Measures for the Formation of Ukraine's Security Environment, which the SBGS received from the MIA in May 2023.

Under this order, the Administration of the SBGS developed proposals for a draft List of Detailed Measures for the Implementation of Tasks to Shape the Security Environment of Ukraine by the SBGS, Other Central Executive Authorities, State Authorities, and Local Self-Government Bodies. In addition, the Administration of the SBGS has also developed proposals for the draft Law of Ukraine, "On the Organizational and Legal Principles of Forming the Security Environment in Ukraine".

LITERATURE REVIEW

Obviously, the quality of the task of developing the state's security environment directly depends on its scientific support. This explains the fact that the scientific aspects of the development of such a project are analyzed in parallel with the organizational aspects. This is confirmed by scientific papers that investigated several prerequisites for the development of the border security environment.

In particular, the work (Levadnyi et al. 2023) systematized the basic prerequisites for the scientific substantiation of the directions of development of the border security (BS) system as a mechanism for the development of the border security environment (BSE) of the state.

The concepts of the state security environment and specific aspects of its development, national, state, military, border security, and state border (SB) security are determined. The system of ensuring BS in structural and functional terms and the context of BS through the prism of the security environment are evaluated. The authors determine an appropriate approach to assessing the state of BS and the distribution of tasks to ensure it by different subjects. A retrospective analysis of the mechanisms for ensuring BS through the prism of the historical development of the border agency is carried out.

The scientific article (Levadnyi et al. 2023) analyzes the development of national and regional BSE of the leading countries of the world and assesses the possibility of its use in Ukraine. Based on the results of the study, the following conclusions are drawn: the development of the world's BSE is influenced by many internal and external conditions and factors, which is manifested in the search for and establishment of a rational balance between the barrier and contact functions of the SB; for Ukraine, it is urgent to fulfill the tasks of the planned "embedding" of its national BS system into the EU regional BS system, ensuring interoperability for future operational and technical interaction between the integrated border management systems (IBMs) of Ukraine and the EU; the development of the state's BSE depends on taking into account the military and terrorist threats on the SB with the

Russian Federation (RF) and the Republic of Belarus (RB); the formation of a promising BS system should be carried out taking into account: the need to ensure its adaptability to significantly differentiated conditions of the BSE; the need to adjust the system of RLA of Ukraine regulating the activities of the SBGSU and to create its relevant capabilities.

Other scientific works have studied the issues of ensuring Ukraine's security in its border area. These include, in particular, the works of Shynkaruk (2019) and Nazarenko (2018, 360). Their scientific analysis through the prism of the problem being investigated was carried out in work (Levadnyi et al. 2023).

THEORETICAL FOUNDATIONS OF THE METHOD FOR SOLVING THE INVESTIGATED PROBLEM

Assumptions:

1. We understand the management of the development of the BSE as the implementation of a set of planned measures aimed at ensuring BS (i.e., achieving its acceptable level) following an appropriate strategy within the framework of a defined concept.
2. Ukraine's border security environment is quite differentiated in space and dynamic in time. This makes it irrational to apply a single (typical) approach to ensuring BS in different sectors of the SB and within different historical boundaries since concepts and strategies should correspond to existing and projected conditions formed by a variety of factors, including military and political, criminal, social and economic, cultural and humanitarian, physical and geographical and other. Instead, the application of a standard conceptual approach to the entire border area at the strategic level can lead to several problematic issues at the regional (operational) and local (tactical) levels, including errors in decisions on operational and service activities, decisions that cannot be fully implemented within the framework of a standard approach; irrational planning and use of resources.

Therefore, to substantiate the concept of BS and the strategy for its provision (development of the BSE) in differentiated conditions, appropriate methodological recommendations are needed that would determine the range of urgent tasks and the resources and technologies required for their implementation on "target-focused" (on conditionally homogeneous areas of responsibility) approach. Therefore, we assume that the adequacy of a BS system should be determined by its compliance with a set of conditions and factors inherent in a particular sector of the border space, taking into account their changes during the projected period for which the system is being designed.

Thus, an example of confirmation of the objectivity of spatial differentiation and temporal dynamics of the BSE is the impact of the armed aggression and hybrid actions of the RF from February 2014 to the present on BS, as a result of which:

- the border regions of Ukraine adjacent to the RF and RB, as well as the Autonomous Republic of Crimea and the city of Sevastopol, have been temporarily occupied;
- a loss of control over a significant part of the SB and maritime area of Ukraine;
- Legitimate cross-border traffic through the Ukrainian-Russian and Ukrainian-Belarusian SB was stopped. Ukrainian airspace was closed to civilian aircraft, ship passage was significantly restricted, and navigation in Ukrainian maritime waters was obstructed.

At the same time, until February 2014, legitimate cross-border flows of people, vehicles, and cargo were almost unimpeded in the SB sectors with Russia and Belarus, with minimal border formalities.

Another confirmation of the objectivity of the spatial differentiation and temporal dynamics of the BSE is the situation in the sectors of the SB of Ukraine with the EU Member States. Where once there was an "Iron Curtain", following the strategic course of the state for Ukraine's full membership in the EU and the North Atlantic Treaty Organization, defined in the Constitution of Ukraine, there is a gradual reduction of border barriers due to visa liberalization and the implementation of a deep and comprehensive free trade area (Decree of the President of Ukraine 2011; The Association Agreement 2014). This has already led to a significant increase in cross-border flows. Thus, on the southwestern border of Ukraine, the border space acquires the features of a particular dynamic political, social, and economic space, full of potential for interaction and cooperation between different groups of social actors: people, societies (border residents, public associations, social and political movements, etc.) and subjects of international relations (states, their regional associations (unions), international governmental and non-governmental (non-state) organizations, participants in foreign economic activity, etc.)). In other words, in this border space, the vital interests of various national, foreign, and international actors are realized, which ensures the progressive democratic development of states, as well as proper conditions for the life and well-being of people.

The differentiation of the border space can be determined by many features, in particular, based on the typology of borders and borderlands. The latter can be estimated from Table 1.

Table 1: Typology of Borders of States and Borderlands (Source: Kupriienko et al. 2014)

Typological Feature	Border Type
By the status of recognition	Official state borders
	Borders of territorial waters
	Formally non-state borders
By configuration (by the method of marking)	Winding and broken
	Geometric
	Astronomical
By the space of formation	Land
	Water Boundaries
	Air
	Subsoil boundaries
By origin, history, and duration of existence	Antecedent or pioneering
	Imposed
	Sub-segmental, or sectional, or subsequent
	Religious
	New or post-Soviet
	Old
By geographical criterion (since the nineteenth century)	Natural
	Artificial
By the functional criterion	Barrier (alienable, or frontal, or closed, or rigid, or border)
	Filtration (translucent, semi-permeable, or hybrid)
	Contact (open, soft, or frontier)
By the nature of the interaction between states	With extensive (quantitative) interaction
	With intensive (qualitative) interaction

Typological Feature	Borderland Type
Depending on the dominant function	Open
	Closed
By the type of contact area	Transitional
	Joint
	Frontline
By the reason of formation	Historically determined
	Politically determined
By the number of social and cultural communities bordering	Bicultural
	Multicultural
By the degree of cultural distance between social and cultural communities bordering	Culturally variable
	Culturally confronting
By the degree of dominance of one of the bordering parties	Socially symmetrical
	Socially asymmetric
By the degree of political conflict between the parties bordering	Conflicting
	Conflict-free
By geographical factor	Geographically separated
	Geographically inseparable

It should be noted that it is pretty challenging to make (for this research) an unambiguous differentiation between the real SB and the borderland according to these features since, firstly, their "pure" types practically do not exist. Combinations of different types give rise to complex political and socio-cultural formations that have many options for their emergence and development. A large number of typological features leads to a cumbersome and branched characterization of the border space. Secondly, such features have an indirect impact on the formation of the concept of BS and the strategy for the development of the BSE since the above typology is mainly of a statement nature and does not reflect the peculiarities of Ukraine's foreign policy towards each adjacent state. Therefore, the feasibility of using a particular typology should be determined by the specific tasks and sectoral specifics of the research.

In our opinion, a more systemic characteristic that can be used to substantiate the concept of BS and the strategy for the development of the BSE is the state of interstate relations (ISR) as a category and subject of international law.

Several works have been devoted to the study of ISR, in particular, the work (Zhurba 2008) by the Polish scientist T. Komarnytskyi. In this work, the scholar differentiated six phases through which the ISR can be modeled. At the same time, it should be noted that the phases of the ISR are directly related to the levels of barrier (closedness) and contact (transparency, sereneness) type of the SB, which, in turn, reflect current national interests in the border area, determine border policy and can serve as a basis for justifying specific approaches to managing the development of the BSE. The mechanisms for regulating the fundamental functions of the SB (barrier, contact, and filtration) are shown in Figure 1.

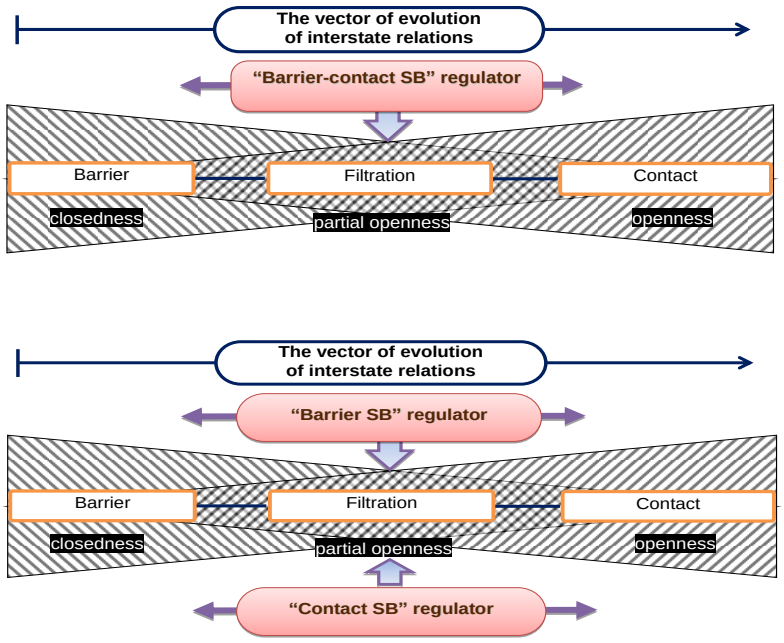


Figure 1: Correlation of the Fundamental Functions of the SB
a) Linear Dependence (synchronous regulators); b) Nonlinear Dependence (asynchronous regulators)
(Source: Kupriienko 2016)

At the same time, in (Kupriienko 2016), the above list of phases was reasonably supplemented by the initial phase (with a complete break or absence of ISR) and the final phase (with the removal of all obstacles to interstate cooperation). Thus, the improved system of phases of the evolution of the ISR is as follows:

I - there is no cross-border traffic; the borders are entirely of a barrier type and militarily protected;

II - the military function of the borders is decreasing while their social and economic importance is being restored;

III - reduction of the military barrier while the economic (duties) and social (passports, visas) significance of the borders remains stable;

IV - the economic and social significance of borders is lost due to liberalization (reduction of state control) of foreign trade and passport policy, but visa regime and control over movement across borders remain (economic integration begins at this phase);

V - further liberalization of trade in goods, as well as the introduction of visa-free travel with relative control over movement across borders;

VI - full liberalization of trade in goods, as well as complete freedom of movement across borders; border control is simplified and limited to the maximum extent possible;

VII - full liberalization of trade in goods, as well as complete freedom of movement across borders, subject to simplified and limited border controls;

VIII - complete elimination of border controls, and movement across the border can take place anywhere and at any time.

In many cases, border barriers are a combination of individual factors.

More detailed aspects of the concept of border security in the context of the theory of international relations, as well as analytical and graphical dependencies of its provision, are presented in the article (Kupriienko 2016, 6).

Figure 2 summarizes the above theoretical aspects as the relationship between the phases of the ISR and their inherent characteristics of the ISR, the main functions of the SB, levels of border barrier/contact, types of border barrier, names of individual concepts of BS, and criteria for its provision.

In general, such information is necessary for the selection of a particular BS concept in the border space with a particular adjacent state or a group of phase-related states. At the same time, the choice of BS concept in Ukraine's border maritime and airspace may be based on the results of the risk analysis, not based on the ISR phases. Further, this article will substantiate the appropriate strategy for the development of the BSE within the framework of the chosen BS concept.

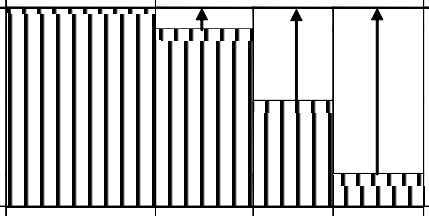
ISR phases	I, II	III	IV, V	VI, VII	VIII
ISR characteristics	Conflicting	Competitive			Friendly
Main functions of the SB	Barrier	Filtration			Contact
The level of border barrier (indicated by dashes) and contact (indicated by arrows) SB					
Border barrier types:					
landscape;	+/-	+/-	+/-	+/-	+/-
military;	+	-	-	-	-
physical;	+	+	-	-	-
demographic;	+	+/-	-	-	-
communication;	+	-	-	-	-
administrative and legal (institutional);	+	+	+	+/-	-
social and cultural;	+	+/-	+/-	+/-	-
economic.	+	+	+/-	-	-
Names of individual concepts of border security between adjacent states	State borders are closed: "Border walls", "Iron curtain"	State borders are open but well controlled and protected: "Integrated (comprehensive, coordinated, harmonized, joint) border management" "Secure (protected) and smart borders"			State borders are fully open between the member states of the regional association: "The world without borders"
Criteria for BS ensuring	*B→max* *C→min*	*B→max* *C→max*			*B→min* *C→max*

Figure 2: Scheme of selection of BS concept depending on the phase of the ISR (B - barrier, C - contact) (Source: Kupriienko 2016, 99)

Approaches to the functional modeling of SB transparency following the selected concepts can be assessed (Kupriienko 2016 11). Based on the analysis of Ukraine's military and political situation as well as its foreign policy, the current and projected phases of its relations with adjacent states can be presented in the form of Table 2.

Table 2: Phases of Ukraine's Interstate Relations with Adjacent States (Source: Authors' depiction)

State Adjacent to Ukraine	The Phase of Interstate Relations		
	Current	Projected	
		for 5 years	for 10 years
EU Member States	-	-	-
Republic of Poland	IV-V	VI	VII
Slovak Republic	IV-V	VI	VII
Hungary	IV-V	VI	VII
Romania	IV-V	VI	VII
CIS Member States	-	-	-
Republic of Moldova (excluding the Transnistrian segment)	IV	IV	V
Republic of Moldova (within the Transnistrian segment)	II	III*	IV*
		*Under conditions of liberation from the occupation of the Transnistrian segment	
Republic of Belarus	I	I	II
Russian Federation	I	I	I

In addition to the considered phases of ISR, the implementation of the chosen BS concept is significantly impacted by the organization of the activities of BS subjects (integrated border management, security forces, and defense forces) and the realization of their capabilities following the legislation of Ukraine and relevant guiding documents. Thus, in our opinion, it is advisable to distinguish three main options for organizing the activities of BS sector subjects, namely in day-to-day conditions, in complicated situations, and conditions of martial law.

Statement of the Problem

However, a significant problem is that there are currently no regulatory provisions to substantiate a rational approach to the strategic development of Ukraine's border security environment.

Despite the considerable attention paid by scholars to the issues of finding directions and mechanisms for ensuring the components of national security, comprehensive instrumental mechanisms for the development and management of Ukraine's BSE have not been studied.

Given the above, the article aims to develop scientific and methodological instrumentation for strategic management of the development of Ukraine's BSE.

Research Methodology

To develop scientific and methodological tools for the strategic management of Ukraine's BSE development, it seems appropriate to:

- formulate the task determined by the aim of the article;
- describe the method of solving the problem under research;
- evaluate the theoretical foundations of the method of solving the problem under research;
- describe the technology for solving the problem under research and evaluate an illustrative example of the application of the proposed method.

Statement of the Task

The initial conditions are set:

1. a general scheme for choosing a BS concept (see Figure 2), the basic elements of which are the phases of the ISR with adjacent states and their inherent characteristics of the ISR, the main functions of the SB, levels of border barrier/contact, types of border barrier, names of individual concepts of BS, and criteria for its provision;
2. the current state of the BSE with each of the adjacent states, characterized by a particular phase of the ISR (see Table 2);
3. a forecast for the development of the BSE with the adjacent states (the projected phase of the ISR) for a certain period (see Table 2);
4. possible options for organizing the activities of the subjects, ensuring BS, and realizing their capabilities following the legislation of Ukraine and relevant guiding documents in day-to-day conditions, in conditions of complicated situations, and in conditions of martial law.

Considering the data from subparagraphs 1-4 of the initial conditions, it is necessary to choose a rational concept for BS. Taking this concept into account, it is essential to justify the strategy for the development of the BSE (ensuring BS), which involves selecting an appropriate set of solutions. These solutions aim to ensure the optimal security level in the border space with each of the adjacent states, hereinafter referred to as a particular sector of the SB.

Methods

The algorithm of the method of solving the problem under research can be evaluated from Table 3 and consists of filling in individual cells in the sequence of the columns of this table.

Table 3: Determination of a Rational Strategy for the Development of the BSE (Source: Authors' depiction)

Particular Sectors of the SB (Adjacent States) (i)	Conditions on a Particular Sector of the SB (j)	ISR Phase		BS Concept; Type of Border Barrier; Criterion for BS Ensuring		Information on a Particular Sector of the SB for SWOT Analysis				Multiple Strategies for BSE Development (k)				The Result of Choosing a Rational Strategy for BSE Development (i.j.k)
						Characteristics of the Internal Environment		Characteristics of the External Environment						
		Current	Projected	Current	Projected	Strengths	Weaknesses	Opportunities	Threats	1	2	3	4	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1													One of the strategies 1.1.1-1.1.4
	2													One of the strategies 1.2.1-1.2.4
	3													One of the strategies 1.3.1-1.3.4
2	1													One of the strategies 2.1.1-2.1.4
	2													One of the strategies 2.2.1-2.2.4
	3													One of the strategies 2.3.1-2.3.4
...														...
n	1													One of the strategies n.1.1-n.1.4
	2													One of the strategies n.2.1-n.2.4
	3													One of the strategies n.3.1-n.3.4

***Note:**
i.j.k - a symbol for a reasonable BS strategy:
i - number of a particular sector of the SB (I = 1,2,...,n);
j - number of conditions on the SB (j = 1,2,3): 1 - conditions of day-to-day activities; 2 - a complication of the situation; 3 - martial law conditions.
Each BSE development strategy for a particular sector includes all of the above conditions j;
k - strategy number (k = 1,2,3,4): 1 - strengths - opportunities (max-max); 2 - weaknesses - opportunities (min-max); 3 - strengths - threats (max-min);
4 -weaknesses - threats (min-min).

FINDINGS

The theoretical foundations and description of the method of solving the problem under research allow us to evaluate the technology of its solution.

For such an assessment, it should be noted that the 1st, 3rd, and 4th columns of Table 3 are filled in from Table 3, taking into account the projected period under research. To fill in the 5th and 6th columns of Table 3, it is necessary to use the data from Figure 1 on the characteristics of the relevant phase of the ISR, namely, the types of border barriers inherent in it, the concept and criteria for ensuring BS, and other information (if necessary).

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Filling in the 7th-10th columns of Table 3 within the SWOT analysis for a particular sector of the SB can be carried out based on assessing the elements of the BSE, taking into account the methodology of strategic analysis. This methodology involves analyzing the general characteristics of the elements of the military and geographical division of the territory; military and political conditions; military and economic conditions; physical and geographical conditions; environmental and sanitary-epidemiological conditions; infrastructure; capabilities of the SBGSU and other subjects of ensuring BS.

The result of the SWOT analysis will be to identify possible strategies (columns 11-14 of Table 3) and to select the appropriate strategy to be followed to ensure BS at a particular sector of the SB (column 15 of Table 3).

Following the chosen strategy (column 15 of Table 3), a set of tasks and measures aimed at determining the necessary resources of all types, their rational spatial and temporal distribution, and use in the interests of protecting national interests in each particular sector of the SB in day-to-day conditions, in conditions of complicated situations and conditions of martial law should be further determined.

The application of the strategic analysis methodology of the SB sector will be demonstrated through the example of the Ukrainian-Belarusian sector of the SB. Conclusions for each of the sections above will be recorded simultaneously.

In terms of the general characteristics of the elements of the military and geographical division of the territory:

1. The Ukrainian and Belarusian nations have a significant historical background and favorable geopolitical position for building friendly foreign policy relations. The current state of relations is characterized as a "Cold War".
2. RF has extremely powerful levers of influence on Belarus, which makes it impossible to implement the idea of changing Belarus' strategic orientation to a pro-European one.
3. The Ukrainian-Belarusian border is characterized as a matter of manipulation and disinformation by specific political figures not only in Belarus but also in foreign countries.

In terms of the military and political situation:

1. Belarus is an ally of the RF and supported it in the invasion of Ukraine in February 2022. Before the large-scale invasion, the RB allowed Russia to conduct a week-long military exercise on its territory. However, Russian troops did not leave the RB territory after the exercise.
2. The RB allowed the RF to invade Ukraine from its territory. However, in April 2022, units of the armed forces (AF) of the RF retreated from the territory of Ukraine, ceasing ground military operations from the RB. As a result, the Ukrainian part of the border region was de-occupied. Nevertheless, the situation in the Ukrainian-Belarusian sector of the SB remains tense.
3. The state of BS is influenced by:

- the fulfillment of tasks by the armed forces of the RB to provide military cover for the Ukrainian-Belarusian border;
- combat training of the Russian armed forces at the Belarusian military training grounds.

In terms of military and economic situation:

1. Even without the direct involvement of the Belarusian armed forces in the war against Ukraine, the Belarusian economy is already suffering significant losses. These losses affect the state of its public finances, in particular, due to a drop in budget revenues.
2. Unlike the RF, which, despite the sanctions, receives tens of billions of dollars from oil and gas exports, the RB has no such economic reserves. Its economic model has failed under the sanctions.
3. Possible new economic restrictions related to the RB's participation in the war against Ukraine may destroy even the remnants of economic stability in the RB.

In terms of the identification of threats to national security on the border with the RB:

1. The analysis of the overall security situation on the border with the RB shows that it remains tense. First of all, the development of the current situation is influenced by the uncertainty of the top leadership of the neighboring country in foreign policy. In particular, there is an attempt to balance between the collective West to mitigate or altogether cancel the imposed powerful economic sanctions and the RF.
2. To date, there are no signs of the enemy forming strike groups to resume offensive actions on the part of the RF.
3. The situation has not changed significantly over the last period. The units of the armed forces of the RB continue to perform tasks to strengthen border protection.
4. At the same time, we should expect the continuation of the destructive policy of the leadership of the RB towards Ukraine. As a result, possible challenges and threats will be:

- new statements and accusations of Ukraine of "unfriendly actions" towards the RB, including preparations for an armed invasion of the RB. At the same time, a high level of anti-Ukrainian and anti-Western propaganda will be maintained in the digital and media space of the RB;
- further comprehensive political and military support of the aggressor country by the RB, including the use of its territory for training of the mobilized military personnel of the RF and massive air and missile strikes, artillery shelling of civilian, military, transport, and critical infrastructure of Ukraine;
- launching barrage munitions from the Belarusian part of the Chornobyl zone (Polissya Radiation and Ecological Reserve) into the territory of Ukraine;
- active radio and aerial reconnaissance, including with the use of UAVs;
- maintaining a high level of threat of a repeated armed invasion of Ukraine from the territory of the RB by the joint regional grouping of troops of the RB and the RF on the Zhytomyr, Chernihiv, Volyn, and Rivne directions. At the same time, the resumption of offensive actions in Ukraine through the exclusion zone and unconditional (mandatory) resettlement is not excluded.

5. Attempts to redirect, with the assistance of Belarusian border guards, the flow of illegal migrants from the border of Belarus with the EU countries to the border with Ukraine to identify weaknesses in the defense and protection of the SB, to conduct direct reconnaissance of the positions of the Ukrainian Defense Forces or to distract from the areas of possible invasion cannot be ruled out.

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In terms of the assessment of threat scenarios:

After the end of the legal regime of martial law, we can expect three possible scenarios for the development of the situation at the SB.

1. If the RF and RB continue their aggressive political course toward Ukraine.

The totalitarian regime in the RB will be strengthened, and the country will become an area isolated from the civilized world. The top military and political leadership of the RB will not abandon its long-term strategic goals of cooperation with the RF and deployment of nuclear weapons on its territory. There will be an increase in military presence on the border with Ukraine, and provocations using all elements of hybrid warfare will continue.

2. In case of violation of the state system and emergence of internal conflicts in the RB.

The dissatisfaction of the society of Belarus with the policy of warfare, significant material losses in the war with Ukraine, and decline in the social and economic level of the civilian population (as a result of economic sanctions) may lead to the emergence of a resistance movement, acts of civil disobedience, which will lead to a change of government, possible secession of some regions, the emergence of new state entities and the outbreak of civil war. As a result, the mass movement of illegal armed groups and refugees from Belarus to Ukraine is not excluded.

3. If the aggressive political course of Russia and Belarus changes and diplomatic relations are restored.

Russia and Belarus will change their foreign policy towards Ukraine. The territory of Ukraine will return to the internationally recognized SB. The leadership of the aggressor country will try to take measures to restore civilized diplomatic and economic relations, as well as reduce its military presence in the border areas.

The functioning of some border crossing points (BCPs) will gradually resume, and passenger and traffic flows will increase. The continuation of sanctions against Russia and Belarus destroyed and damaged infrastructure, and low social and humanitarian standards of living in the border areas will contribute to the intensification of organized illegal activities.

If this scenario is realized, there will be a need to establish diplomatic relations with Belarus, update the legal framework on border issues, continue to implement IBM principles, regain control over the SB, fortify and equip the SB, resume the functioning of the BCPs; and develop border infrastructure, including using modern innovative technologies.

Thus, the above results of applying the methodology of strategic analysis to the Ukrainian-Belarusian SB allow us to proceed directly to the SWOT analysis as a mechanism for filling in the 7th-10th columns of Table 3.

This analysis will be conducted using the example of the day-to-day activities of the SBGSU conditions.

To do this, we will first describe the strengths and weaknesses of the internal environment, as well as the opportunities and threats posed by the external environment. A similar approach can be found in Bratko et al. (2021).

Strengths under the conditions of day-to-day activities:

1. the functioning of a sufficient number of BCPs and control points at the state border of Ukraine; the functioning of the departmental biometric control system;
2. functioning of an adequate "green border" protection system;
3. increasing the capacity of the state border protection on the river sectors;

...

10. creation of an integrated system of protection for the entire length of the SB of Ukraine based on innovative engineering and technical solutions.

Weaknesses under the conditions of day-to-day activities:

1. inadequacy of the BCPs infrastructure and access roads to meet the growing capacity needs;
2. insufficient level of engineering and technical equipment and logistical support for the security of the BCPs;
3. low staffing of border guard units;

...

10. insufficient efficiency of the state border protection system.

Opportunities under the conditions of day-to-day activities:

1. protecting the SB of Ukraine following its powers on land to prevent illegal changes in the passage of its line, ensuring compliance with the SB regime and border regime;
2. carrying out, following the established procedure, border control and passage of persons, vehicles, and cargo across the SB of Ukraine, as well as detecting and stopping cases of their illegal movement;
3. protection of the SB of Ukraine under its authorities on rivers, lakes, and other water bodies to prevent illegal changes in the passage of its line, to ensure compliance with the SB regime and border regime;

...

10. the ability to introduce modern forms and methods to strengthen law and order, moral and psychological state, and discipline of personnel to ensure social and legal protection of service members and their families.

Threats under the conditions of day-to-day activities:

1. incomplete demarcation of the Ukrainian-Belarusian sector of the SB;
2. low level of well-being of the population in the border areas of Ukraine, which provokes illegal activities at the SB;
3. the spread of international crime, in particular in drug trafficking, human trafficking, illegal migration, and the proliferation of weapons of mass destruction;

...

10. imperfection of the regulatory framework in the field of BS.

The results of the expert assessment of the strengths and weaknesses of the internal environment, as well as opportunities and threats in the external environment that correlate with them in the context of day-to-day activities, can be assessed in Tables 4-7.

A 4-point verbal-numerical scale for assessing the strength of correlation relationships in the corresponding pairs of parameters was used: 0 - no relationship; 1 - weak relationship; 2 - medium relationship; 3 - strong relationship.

Table 4: Assessing the Relationships between Strengths and Opportunities
(Source: improved from Bratko et al. 2021)

Opportunities (i)	Strengths in Day-To-Day Activities (j)										∑j	Importance of Opportunities Yj	∑j•Yj
	1	2	3	4	5	6	7	8	9	10			
1	1	3	1	1	0	0	1	2	3	3	15	0.152	2.28
2	3	0	1	1	1	1	1	2	1	2	13	0.140	1.82
...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	0	0	0	0	0	3	3	0	0	0	6	0.036	0.21
∑i	15	13	11	10	15	18	17	13	11	13	∑ 279	1.000	14.34
Importance of Strengths Yi	0.092	0.130	0.087	0.083	0.076	0.072	0.110	0.109	0.090	0.141	1.000	-	-
∑i·Yi	1.38	1.69	0.95	0.83	1.14	1.29	1.87	1.47	0.99	1.83	13.44	-	27.78

Table 5: Assessing the Relationships between Strengths and Threats
(Source: improved from Bratko et al. 2021)

Threats (i)	Strengths in Day-To-Day Activities (j)										∑j	Importance of Threats Yj	∑j•Yj
	1	2	3	4	5	6	7	8	9	10			
1	1	3	0	1	0	0	0	1	1	3	10	0.141	1.41
2	3	3	1	2	1	2	1	2	2	2	19	0.132	2.50
...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	3	3	0	0	1	1	1	1	1	3	14	0.145	2.03
∑i	20	23	12	15	16	14	9	10	9	24	∑ 304	1.000	15.21
Importance of Strengths Yi	0.092	0.130	0.087	0.083	0.076	0.072	0.110	0.109	0.090	0.141	1.000	-	-
∑i·Yi	1.84	2.99	1.04	1.25	1.22	1.00	0.99	1.09	0.81	3.38	15.61	-	30.82

Table 6: Assessing the Relationships between Weaknesses and Opportunities
(Source: improved from Bratko et al. 2021)

Opportunities	Weaknesses in Day-To-Day Activities (j)										∑j	Importance of Opportunities Yj	∑j•Yj
	1	2	3	4	5	6	7	8	9	10			
1	1	3	2	0	2	3	3	3	3	3	23	0.152	3.50
2	3	2	1	0	2	3	1	2	1	0	15	0.140	2.10
...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	0	1	3	1	1	1	1	3	1	2	14	0.036	0.50
∑i	11	19	22	13	23	24	24	27	21	15	∑ 398	1.000	20.12
Importance of Weaknesses Yi	0.060	0.161	0.161	0.092	0.060	0.103	0.038	0.127	0.034	0.160	1.000	-	-
∑i·Yi	0.66	3.06	3.54	1.20	1.38	2.47	0.91	3.42	0.71	2.40	19.76	-	39.88

Table 7: Assessing the Relationships between Weaknesses and Threats
(Source: improved from Bratko et al. 2021)

Threats	Weaknesses in Day-To-Day Activities (j)										∑j	Importance of Threats Yj	∑j•Yj
	1	2	3	4	5	6	7	8	9	10			
1	3	2	0	0	2	3	0	1	0	3	14	0.141	1.97
2	1	3	1	1	3	3	1	1	1	3	18	0.132	2.38
...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	1	1	1	0	0	1	2	2	3	1	12	0.145	1.74
∑i	19	22	13	12	22	28	14	16	17	18	∑ 362	1.000	18.62
Importance of Weaknesses Yi	0.060	0.161	0.161	0.092	0.060	0.103	0.038	0.127	0.034	0.160	1.000	-	-
∑i•Yi	1.14	3.54	2.09	1.10	1.32	2.88	0.53	2.03	0.58	2.88	18.10	-	36.73

The analysis allows us to fill in columns 7-10 of Table 4.

Further application of the SWOT analysis methodology allows us to formulate strategies that can take place for a particular sector of the SB (columns 11-14 of Table 3).

The obtained data on ∑i•Yi≡∑j•Yj for partial strategies and individual conditions j are summarized in a single matrix, which allows comparing them and selecting rational partial strategies by the highest values of the corresponding quantitative indicators. An example of such a matrix is shown in Table 8.

Table 8: Matrix for Determining Partial Strategies for the Development of the Ukrainian BSE (Based on Expert Assessment of Strengths, Weaknesses, Opportunities, and Threats) (Source: improved from Bratko et al. 2021)

Relationship	Options for Organizing Activities					
	Conditions of Day-To-Day Activities		Conditions of a Complicated Situation		Conditions of Law	
	Priority	∑i•Yi≡∑j•Yj	Priority	∑i•Yi≡∑j•Yj	Priority	∑i•Yi≡∑j•Yj
Strengths - Opportunities (max-max)	4	27.78	3	37.63	3	43.44
Strengths - Threats (max-min)	3	30.82	4	30.41	2	44.45
Weaknesses - Opportunities (min-max)	**1**	**39.88**	**1**	**42.53**	**1**	**47.35**
Weaknesses - Threats (min-min)	2	36.73	2	38.32	4	41.77

As a result of the analysis of the data presented in Table 8, we determine the appropriate partial strategies for different options for organizing activities in a particular sector of the SB. In the illustrative example, these are partial min-max strategies. Based on these three strategies, the content of the general strategy for the development of the BSE (a set of strategic goals, objectives, and measures) is formed, which will ensure an acceptable security level for each particular sector of the SB with the adjacent state. At the same time, the aspects with strong (marked as "3") and medium (marked as "2") correlation relationships in the respective pairs of parameters are taken into account first (see Tables 4-7).

CONCLUSION

The research conducted in this paper is a substantiation of the method for strategic management of the development of the Ukrainian BSE.

When developing the scientific and methodological instrumentation for strategic management of the development of the BSE of Ukraine, the authors formalized the relevant task. They described the method of its solution, evaluated the theoretical foundations of the proposed method, described the technology for solving the problem under research, and provided an illustrative example of the application of the proposed method. Based on the results of the analysis and the illustrative example, it can be concluded that the proposed method for strategic management of the development of Ukraine's BSE is one of the possible effective mechanisms in the activities of the subjects ensuring Ukraine's BS.

Prospects for further research on the topic under study are seen in testing the method in the context of a complicated situation and under martial law, as well as in the full formalization of the proposed method.

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