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DEVELOPMENT OF A MECHANISM FOR COUNTERING THREATS TO THE ORGANIZATION'S ECONOMIC SECURITY

Kisilyova I. Yu.

Zaporizhzhya National University
Ukraine, 69600, Zaporizhzhia, Zhukovsky str., 66
inna_kisileva@ukr.net
ORCID: 0000-0002-6486-6546

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project approach, economic security, determinants, measures to counteract threats to economic security.

The article considers the content of the main elements of the mechanism of management of the project «Economic security of the organization». Each project corresponds to certain mandatory procedures aimed at achieving certain intermediate goals. The main stages of management of the project «Ensuring the economic security of enterprise» are defined: Stage 1. Determination of the level of economic security of the organization. Stage 2. Analysis of threats to the economic security of the organization. Stage 3. Project planning. Stage 4. Implementation of countermeasures. Stage 5. Stage control. Stage 6. Mechanism monitoring. The proposed mechanism for managing the project «Economic security of the organization» allows to cover all its components and implement them on the basis of the project approach.

Taking into account the allocated threats to the level of ensuring economic security, a plan of measures necessary to counteract threats to the economic security of enterprise at the macro, meso-level and micro-level has been proposed. A matrix of measures to counter threats to the economic security of enterprise has been compiled. It is noted that when assessing the threat to economic security, the main emphasis should be placed on the amount of possible damage and the expected time of implementation of the threat, the ratio of which characterizes the level of threat, which takes one of five values: «very high», «high», «medium», «low», «very low». The proposed mechanism for counteracting threats to the economic security of the organization allows the most efficient use of the financial and time resources of the organization on the basis of the scenario method, based on the current level of economic security.

РОЗРОБКА МЕХАНІЗМУ ПРОТИДІЇ ЗАГРОЗАМ ЕКОНОМІЧНІЙ БЕЗПЕЦІ ОРГАНІЗАЦІЇ

Кисільова І.Ю.

Запорізький національний університет
Україна, 69600, м. Запоріжжя, вул. Жуковського, 66

Ключові слова:

проектний підхід, економічна безпека, детермінанти, заходи протидії загрозам економічної безпеки.

В статті розглянуто зміст основних елементів механізму управління проектом «Економічна безпека організації». Кожному проекту відповідають певні обов'язкові процедури, спрямовані на досягнення певних проміжних цілей. Визначено основні етапи управління проектом «Забезпечення економічної безпеки підприємства»: 1 етап. Визначення рівня економічної безпеки організації. 2 етап. Аналіз загроз економічної безпеки організації. 3 етап. Планування проекту. 4 етап. Реалізація заходів протидії. 5 етап. Контроль стадій. 6 етап. Моніторинг механізму.

Запропонований механізм управління проектом «Економічна безпека організації» дозволяє охопити усі її складові та здійснити їх реалізацію на засадах проектного підходу.

З урахуванням виділених загроз за рівнем забезпечення економічної безпеки запропоновано план заходів, необхідних для протидії загрозам економічній безпеці підприємства на макрорівні, мезорівні та мікрорівні.

Складено матрицю заходів щодо протидії загрозам економічній безпеці підприємства. Зазначено, що при оцінці загрози економічної безпеки основний акцент має бути зроблено на величину можливої шкоди та очікуваний час реалізації загрози, співвідношення яких характеризує рівень загрози, який приймає одне з п'яти значень: «дуже високий», «високий», «середній», «низький», «дуже низький».

Запропонований механізм протидії загрозам економічній безпеці організації дозволяє максимально ефективно використовувати фінансові та тимчасові ресурси організації на основі сценарного методу, виходячи з поточного рівня економічної безпеки.

Problem statement

The key elements of financial management are well-developed long-term financial policy, investment portfolio management, effective control over the own and borrowed capital ratio, which assess the financial stability and independence of the organization. An important element is the formation of an effective mechanism for ensuring the financial security of the enterprise.

Analysis of recent researches and publications

The problem of an enterprise economic security management in today's conditions is more relevant than ever. A significant number of works of both domestic and foreign scientists are devoted to the issues of ensuring economic security. The issue of financial and economic security of the enterprise and the mechanism for ensuring financial security were handled by such scientists as: Vasylytsiv T. G. [1], Ivashchenko O.V. [2] and others. The issue of ensuring economic security is also considered in the works Kolevatova, A.V. [3], Staverska, T.O. & Shevchuk, I.L. [4]. However, only a small number of works are devoted to the application of the project approach to ensure the economic security of the enterprise, in particular, the work of [5].

Formulating of objectives

The article is aimed at further development and refinement of formation of an effective mechanism for ensuring the financial and economic security of enterprise.

Presentation of the main research material

Countering threats to the economic security of the organization on the basis of the project approach requires the purposeful distribution of available resources to improve economic security in the context of its key determinants over time. In the process of ensuring economic security, the management of the organization needs to maintain and control a large number of continuous processes, provide them with the necessary resources, taking into account the economic interests of all business entities.

The key element that connects the various elements of the organization's economic security system is a single mechanism for countering threats to the organization's economic security. The Economic Security Strategy of the enterprise should analyze the main challenges and threats to economic security and determine the importance of uninterrupted operation of the mechanism for managing economic security:

1. Determination of the deviation of the actual level of economic security from the target.

2. Identification of threats to economic security.

3. Calculation of scenario variants of the ratio (P/T) – high budget, short period; average budget; middle period; low budget, long period. To determine the required amount of resources and the possibility of optimizing their distribution, it is necessary to determine: what risks the organization bears for failure to achieve the target level of economic security. Based on this assessment, it is possible to plan a budget for measures to ensure economic security. Temporal indicators are calculated taking into account the probability of the threat occurring.

Let's assume that the actual level of economic security of the organization is X_0 , the optimal level is X_2 . Then the target level X_1 can be represented as the following inequality:

$$X_0 < X_1 \leq X_2.$$

$$U_{\text{initial}} < U_{\text{target}} \leq U_{\text{optimal}}$$

$$U_{\text{initial}} = \sum (Yn_{\text{initial}})$$

$$U_{\text{target}} = \sum (Yn_{\text{target}})$$

Yn – determinant indicators; T – period (long, medium, short-term); U – resources (maximum, average, minimum)

4. Drawing up an action plan – Gantt chart three times (short, medium, long)

5. Solving the optimization problem.

6. Identification of threats to economic security in accordance with the main determinants.

The main elements of the mechanism management of the project «Economic Security of Organization» are considered. The object of management is an economic system of organization, as it is called by the name of the internal and internal threats of economic safety. Obviously, if the economic system is possible, it will become the most important thing for the economic system, so that the optimal level of economic safety of the organization will be achieved. This is the name and zoom of the project management mechanism. As a sub'ekt of the project management mechanism, the system of economic safety of the organization is considered. In case of stagnation of the project progress to the provision of economic security, the system will be implemented under the project «Economic Safety of Organization».

In fact, the subject of the project management mechanism is the project team, which includes specialists,

experts and employees of the organization who have the appropriate competence to make management decisions in the field of ensuring the economic security of the organization. Considering the structure of the mechanism: it should be noted that each project corresponds to certain mandatory procedures aimed at achieving certain intermediate goals. The target function of our project – ensuring economic security – can also be decomposed into certain components. The work of the project team includes six main stages [3]:

Stage 1. Determination of the level of economic security of the organization. For this purpose, at the beginning of the project, on the basis of international and domestic research experience of leading economists, taking into account global trends and average values of indicators in the industry, the limit values of determinants in the system of economic security of the organization at the micro-, meso- and macro-levels are developed.

Next, it is necessary to calculate the actual values of threat indicators in accordance with the key determinants (Y_n) and compare them with the optimal ones. With significant deviations of the actual indicators from the optimum, some intermediate target values can be set. Achievement of intermediate results is necessary to bring specific indicators out of the critical level and maintain the stable functioning of the organization.

Stage 2. Analysis of threats to the economic security of the organization. At this stage, the team analyzes the full range of potential threats to the organization and ranks them based on the probability of their implementation, potential damage, and the moment of attack.

In accordance with the proposed approach to identifying and ranking threats, it becomes possible to respond, first of all, to the most dangerous threats within the resources available in the organization.

Stage 3. Project planning. At this stage, in accordance with the key principles of the project approach, the team calculates scenario options for the allocation of resources and time to counter threats and increase the level of economic security of the organization. Taking into account the versatile nature of the emerging threats to the economic security of the organization and the development of an appropriate action plan to achieve target and optimal values of indicators in conditions of limited budget and time, we will apply the methods of set-theoretic analysis.

Stage 4. Implementation of countermeasures. The team forms an action plan based on the allocated budget and project plan. To do this, all activities are distributed on the Gantt chart. The formation of an action plan is carried out on the basis of an analysis of potential threats and the development of management decisions aimed at countering this threat and improving key indicators that characterize the state of security of the organization in the context of key determinants of economic security.

Stage 5. Stage control. The team solves the problem of optimizing financial and time resources based on the method of critical chains. All activities through appropriate appointments are provided with the necessary resources

and implemented optimally, apart from delay and downtime.

It should be noted that measures to counter threats are implemented not one by one, but in parallel, in the context of key determinants in the presence of free resources, which ensures the maximum efficiency of the resources used. At this stage, it is extremely important to have a clear control of the stages and their boundaries, since the assignment of resources (performers, equipment and material stocks) depends on them, both in subsequent measures to counter the same threat, and in parallel measures against other threats.

Stage 6. Mechanism monitoring. At this final stage of the project management mechanism, the team sums up the implementation of all activities, assesses the achievement of targets in the context of key determinants of the organization's economic security, and determines the list of potential threats for the next period.

Upon successful achievement of all targets, the project is considered to be successfully completed and closed, and the system of ensuring the economic security of the organization goes into a state of process activity and is implemented in the traditional form. If, in the process of monitoring the project, it is proved that the organization failed to achieve the required level of economic security, for example, due to insufficient budget for the previous period, the project continues its activities in accordance with the scenario distribution of budget and time. In this case, the activities that were financed from the budget of the previous period of the project operation are implemented. Thus, the proposed mechanism for managing the project «Economic security of the organization» allows to cover all its components and implement them on the basis of the project approach.

When identifying threats to the economic security of the organization, the emphasis is on the timing of the offensive, potential damage and probability; planning is carried out on the basis of scenario ratios of budget and time allocated for activities; The procedure for implementing measures is based on the critical path method. The use of the advantages of the project approach is aimed at increasing the economic security of the organization. Taking into account the identified threats in terms of the level of ensuring economic security, we will form a plan of measures necessary for counteraction (Tab. 1-3).

Studies show that in order to neutralize threats to the economic security of an enterprise, it is necessary to implement the following main measures: diversification of sales channels (M1); capital investments, fixed assets (M2); capital investments in infrastructure (M3); monitoring of legislation (M4); ensuring the required level of solvency (M5); increase in wage costs (M6); increasing the cost of information protection (M7); increase in spending on education (M8); increase in advertising costs (M9); increase in R&D costs (M10); attraction of investments (M11); sales growth through existing distribution channels (M12); reduction of production costs (M13); increase in production volumes (M14).

Table 1 – Measures to counteract threats to the economic security of the enterprise at the micro level

Indicator	Threats	Measures
<ul style="list-style-type: none"> – Current liquidity ratio – Total solvency ratio – Return on sales, % 	<ul style="list-style-type: none"> – Untimely fulfillment of financial obligations; – Reduced return on sales. 	<ul style="list-style-type: none"> – Ensuring the required level of solvency; – Reducing the cost of production
<ul style="list-style-type: none"> – Depreciation coefficient of fixed assets – decrease in production efficiency; – Return on assets, UAH / UAH Growth rate of the average annual cost of fixed assets, % 	<ul style="list-style-type: none"> – Decrease in Product quality 	<ul style="list-style-type: none"> – Capital investments in fixed assets
<ul style="list-style-type: none"> – Growth rate of required expenditures for information protection, % – Coefficient of information armament, – % Coefficient of information protection, % 	<ul style="list-style-type: none"> – Incurring losses as a result of information leakage; – Decrease in competitiveness 	<ul style="list-style-type: none"> – Increased costs for information protection
<ul style="list-style-type: none"> – Growth rate of the average wage, % – Staff turnover, % – Share of employees with higher education, % 	<ul style="list-style-type: none"> – Decrease in production efficiency; – Decrease in product quality; – Untimely fulfillment of obligations; – Decrease in competitiveness 	<ul style="list-style-type: none"> – Increase in wage costs; Increased spending on education
<ul style="list-style-type: none"> – Level of provision of the organization's resources, % – Growth rate of material efficiency, % – Growth rate of personnel profitability, % 	<ul style="list-style-type: none"> – Decrease in production efficiency; – Decrease in product quality; – Untimely fulfillment of obligations; – Decrease in competitiveness 	<ul style="list-style-type: none"> – Increase in the cost of resource provision; – Increased spending on education
<ul style="list-style-type: none"> – Capital investment growth rate, % – Investment ratio; – Investment Activity Ratio 	<ul style="list-style-type: none"> – Decrease in production growth rates 	<ul style="list-style-type: none"> – Capital investments in fixed assets
<ul style="list-style-type: none"> – Growth rate of environmental protection costs, %; – Growth rate of industrial safety costs, %; – Growth rate of labor protection costs, %. 	<ul style="list-style-type: none"> – Penalties for violation of the law and expenses for the elimination of damages 	<ul style="list-style-type: none"> – Capital investments in infrastructure (ecology, labor protection)
<ul style="list-style-type: none"> – Growth rate of employee education costs, %; – Share of employees with more than 5 years of experience, %; – Share of employees with specialized higher education, % 	<ul style="list-style-type: none"> – Decrease in production efficiency; – Decrease in product quality; – Decrease in competitiveness 	<ul style="list-style-type: none"> – Increased spending on education; – Increased advertising costs; – Diversification of sales channels
<ul style="list-style-type: none"> – Growth rate of advertising costs, % – Dependence on a specific sales channel, %; – Sales growth rate for existing sales channels, % 	<ul style="list-style-type: none"> – Decrease in competitiveness; – Loss of sales markets; – Decreased return on sales 	<ul style="list-style-type: none"> – Increase in production volumes

Table 2 – Measures to counteract threats to the economic security of the enterprise at the meso level

Indicator	Threats	Measures
<ul style="list-style-type: none"> – The ratio of return on sales to the average profitability in the industry, %; – The growth rate of the organization's share in the industry, %. 	<ul style="list-style-type: none"> – Decrease in competitiveness; – Slowdown in production growth 	<ul style="list-style-type: none"> – Attracting investments
<ul style="list-style-type: none"> – Growth rate of local market coverage, % – Decrease in competitiveness; – Sales growth rate to regional customers, % – Sales growth rate to foreign customers, % 	<ul style="list-style-type: none"> – Decrease in production growth rates 	<ul style="list-style-type: none"> – Sales growth through existing distribution channels

We will combine threats and measures into general blocks for further detailing the action plan and highlighting the work. The results are presented in Table 4.

When assessing the threat to economic security, the main emphasis should be placed on the amount of possible damage (P) and the expected time of implementation of the threat (T), the ratio of which characterizes the level of threat. Depending on the numerical values of the points of the P and T parameters, the threat level takes one of five values: «very high» (VH), «high»(H). «medium»(M), «low»(L), «very low»(VL). (Table 5).

Conclusions

The proposed mechanism for counteracting threats to the economic security of the organization allows the most efficient use of the organization's financial and time resources on the basis of the scenario method, based on the current level of economic security, as well as to increase the efficiency of personnel management through the use of the critical path method, the use of buffer zones and the elimination of negative aspects of traditional management.

Table 3 – Measures to counteract threats to the economic security of the enterprise at the macro level

Indicator	Threats	Measures
<ul style="list-style-type: none"> – Growth rate of oil and gas exports, % – Growth rate of investments in production, % – Growth rate of product prices, % 	<ul style="list-style-type: none"> – Decrease in competitiveness, – decrease in production growth rates 	<ul style="list-style-type: none"> – Increasing the scale of production; – Attraction of investments; – Reducing the cost of production
<ul style="list-style-type: none"> – Annual inflation rate, % (INF); – Growth rate of the average hryvnia exchange rate to the dollar, %; – Index of prices, % 	<ul style="list-style-type: none"> – Decrease in sales revenue; Decrease in return on sales 	<ul style="list-style-type: none"> – Sales growth with existing channels; – Reducing the cost of production
<ul style="list-style-type: none"> – The ratio of the average salary in the organization to the average salary in the industry, times; – Employment rate, %; – Staff turnover in the industry, % 	<ul style="list-style-type: none"> – Decrease in the provision of the organization with human resources 	<ul style="list-style-type: none"> – Increase in payroll costs
<ul style="list-style-type: none"> – Share of R&D expenditures in GDP, %; – Growth rate of expenditures on technological innovations, % 	<ul style="list-style-type: none"> – Decrease in competitiveness 	<ul style="list-style-type: none"> – Capital investments in fixed assets; – Increased R&D costs
<ul style="list-style-type: none"> – Growth rate of the tax burden, % – Refinancing rate, % 	<ul style="list-style-type: none"> – Decrease in sales revenue Decrease in return on sales; – Decrease in the availability of credit resources – Reduction in the cost of production 	<ul style="list-style-type: none"> – Attracting investments

Table 4 – Measures to counteract threats to the economic security of the enterprise

Threats	Measures
1. Incurring losses as a result of information leakage	Increased costs for information protection
2. Decreased competitiveness	Increased costs for information protection
	Increased spending on education
	Increase in advertising costs
	Sales growth through existing distribution channels
	Increase in production volumes
	Reducing the cost of production
3. Decrease in sales revenue	Sales growth through existing distribution channels
	Reducing the cost of production
4. Зниження рентабельності продажів	Reducing the cost of production
	Increase in advertising costs
	Diversification of sales channels
	Increase in production volumes
	Sales growth through existing distribution channels
5. Slowdown in production growth	Capital investments in fixed assets
	Sales growth through existing distribution channels
	Reducing the cost of production
	Scaling up production
6. Failure to meet financial obligations on time	Ensuring the necessary level of solvency
7. Failure to fulfill obligations in a timely manner	Increased spending on education
	Increase in wage costs;
8. Decrease in production efficiency a	Increase in wage costs;
	Increased spending on education
	Capital Investments Fixed Assets
9. Decrease in the provision of the organization with human resources	Increase in wage costs
	Diversification of sales markets,
10. Втрата ринків збуту	Increased R&D costs
	Capital Investments Fixed Assets
11. Decrease in the availability of credit resources	Monitoring of legislation,
	Capital investment in infrastructure
12. Penalties for violation of the law and expenses for the elimination of damages	Capital investments in fixed assets
	Increase in wage costs;

Table 5 – PRT – matrix of threats to the economic security of the enterprise

№	Threats	Damage (P)	Time (T)	Threat Level	Opportunity (R)
U1	Damage due to information leakage	1	1	VH	1
U2	Decrease in competitiveness	1	1	VH	1
U3	Decrease in sales revenue	1	1	VH	2
U4	Decreased return on sales	1	2	H	2
U5	Decrease in production growth rates	1	2	H	2
U6	Late fulfillment of financial obligations	3	1	M	2
U7	Late fulfillment of financial obligations	3	1	M	2
U8	Зниження ефективності виробництва	2	2	M	2
U9	Decrease in the provision of human resources to the organization	2	2	M	2
U10	Loss of markets	1	3	M	3
U11	Decrease in the availability of credit resources	3	3	L	2
U12	Penalties for violation of the law and expenses for the elimination of damages	3	3	VL	3

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