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A METHODOLOGICAL APPROACH TO OPTIMIZING FINANCIAL RESOURCES TO INCREASE THE LEVEL OF ECONOMIC SECURITY IN A DYNAMIC EXTERNAL ENVIRONMENT

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Abstract

The purpose of the article is to present a new approach to the optimal selection of financial resources to increase the level of economic security in a dynamic external environment. The scientific question arises as to which of the possible options is optimal, taking into account the dynamism of the external environment and security needs. The object of the study is the economic safety of industrial companies. The methodology is based on modern methods of system analysis, multi-criteria evaluation and paired comparison. The main result of the study is the proposed approach to assessing resource support for the implementation of a security mechanism, which, based on the actual limitations of human, organizational and financial resources at the disposal of most Ukrainian enterprises, can significantly improve the efficiency of their use without reducing the effectiveness of actions which are aimed at increasing competitiveness. The study has limitations, since it only takes into account the specifics of enterprises in the industrial sector of this economy, and therefore the options for financial resources are adjusted accordingly.

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Introduction

In modern conditions of increasing unpredictability of the global economic environment, the financial resources of enterprises are becoming a decisive factor influencing the stability and economic security of a country. In the context of the growing dynamics of external conditions, including the political, economic and social challenges facing Ukraine, the relevance of ensuring the financial sustainability of industrial enterprises increases significantly. The aggravation of the military situation in the country requires not only an immediate response to current needs, but also long-term planning to minimize risks that may threaten economic security at the macro- and microeconomic levels.

When any management decision is made, or measures are implemented to improve one or another indicator, not necessarily a qualitative one, a certain amount of resources is attracted. The resources of open socio-economic systems are different and are classified differently. Economic security is a special state that constantly, so to speak, "eats" the resources of an enterprise. The formation and implementation of a mechanism for ensuring economic security is, first of all, resource costs in order to be as competitive as possible in the market and achieve a high level of security.

The issue of organizing a competitive industrial management policy, both theoretically and at the level of practical implementation, is a pressing issue in all countries. Given the existence of the global crisis, the industrial sector has also experienced significant negative consequences, which forced the world's leading countries to look for ways to overcome these crisis phenomena. The governments of most countries have long realized the fact that the scope and specificity of the functioning of industrial enterprises has undergone fundamental changes under the influence of the phenomena of globalization, the manifestation of the influence of Industry 4.0, the internationalization of sales markets, and local crisis phenomena that have arisen in one way or another in any economy in the world in these years. Industrial enterprises could no longer effectively realize their production potential and develop competitive advantages in an outdated and static environment of directive management and the unified power of the state regulator. In this regard, in the vast majority of countries the need arose of analyzing and creating a new paradigm for cooperation and management of the activities of industrial enterprises.

In general, the problem of unprofitability of industrial enterprises in Ukraine is not new and constantly draws the scientific attention of many studies. There are enough solutions proposed, but not all of them may be effective in practice or are not needed in the new conditions of development. Recent years have been very fast-moving, and therefore some solutions to this problem have not taken into account new developments. For example, if we are talking about events before 2019, then no one could have thought about the pandemic and ways to ensure physical security on a massive scale for Ukrainian enterprises. Today, any manifestations of unprofitability directly or indirectly indicate security problems and ineffective use of the security mechanism. A separate issue is the fact that low profitability and negative financial results do not in any way contribute to a high level of economic security (Figure 1).

By the end of 2022, we could talk about an increase in the number of unprofitable industrial enterprises in the total share. 2022 is the year of war in Ukraine, when there was an urgent need to ensure our own economic security. The resource costs for this process are highly dependent on the scaling of the environment. If we are talking about the domestic market, there are only resources, but when there is access to the international market, this is a completely different volume of resources. No competition is possible without resources.

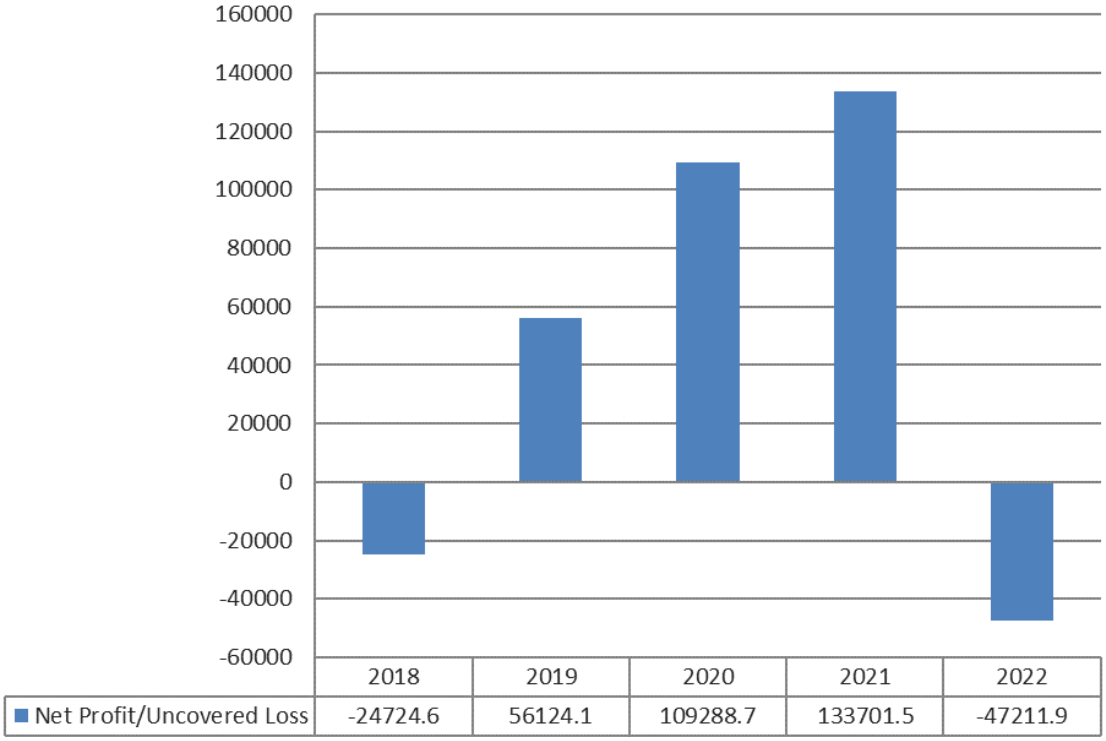
The martial law conditions in which all Ukrainian industrial enterprises found themselves changed their operating environment. Under martial law, resources are limited. It is extremely important to structurize them and select the optimal ones, with the aim of their further use to increase the level of economic security of an industrial enterprise.

The key scientific focus of the study is on industrial enterprises and their activities. In this context, the key goal of the article is to present a new approach to the optimal selection of financial resources to increase the level of economic security in a dynamic external environment.

Literature review

A review of the literature shows the problems of resource provision and the improvement of the economic security of the enterprise plays a significant role in the formation of theoretical and practical principles of enterprise management. In connection with dynamic changes in the global economic space, regular analysis of current scientific developments makes it possible to identify the latest trends and develop effective strategies in response to modern challenges. Studying the literature also contributes to the identification of new opportunities for innovation and technological development, which is necessary for maintaining the competitiveness and long-term growth of the enterprise. This allows the entity not only to improve internal processes, but also to define strategies for entering new markets or expanding activities.

Figure 1: Dynamics of the volume of net profit (loss) of industrial enterprises of Ukraine for 2018-2022, million UAH



Source: Author's own work.

Today, research is mostly related to issues of financial activity, which as a result contributes to the economic security of the enterprise (Lahiri et al., 2022; Lezgovko, 2007). At the same time, the literature raises the question of how increasing the level of economic security of the enterprise depends on management principles (Patsula et al., 2022) or how threats were effectively countered (Kelman et al., 2020). But it should be noted here that it all works when there are financial resources. In the literature, you can find research devoted to the issue of resource provision (Pratolo et al., 2022; Kartuzov, 2012) and how it is possible to ensure security through effective resource management (Veresklia et al., 2021; Parubets et al., 2023). It is often mentioned in the literature that the financial condition can significantly increase the level of economic security of the enterprise, since finance is the most significant component of this type of security (Valkauskas, 2010; Treus, 2023).

The key gaps in the literature today are the lack of a clear understanding of how financial resources can affect an increase in the level of economic security of an enterprise; and the approach to choosing the optimal resource provision. However, while paying tribute to the scientific achievements of leading scientists, a number of issues and problems still remain relevant and unsolved. In particular, this concerns Ukrainian industrial enterprises that are in a problematic external environment caused by the war. Under such conditions, the choice of resources to ensure economic security is limited. Only two or three options are possible. That is why the scientific question arises as to which of the possible options is optimal, taking into account the dynamism of the external environment and security needs.

Methodology

The basis of the study was the methods of system analysis, multicriteria evaluation and paired comparison. The multi-criteria evaluation method (multi-criteria analysis) is a complex system for analyzing choices based on various and often conflicting criteria. This method allows you to take into account the versatility and complexity of decisions in the process of management, planning and optimization. The paired comparison method is an evaluation technique used to determine the relative importance of various alternatives or criteria in the decision-making process. This method is especially useful when you need to prioritize a series of options based on subjective assessments. The essence of the method is that the evaluator is asked to compare a pair of objects (for example, opportunities, projects, solutions, resources) according to one criterion at a time, determining which of the objects is better or more important. This process is then repeated for each pair of objects in the set. The results of paired

comparisons can be used to create a ranked list of objects or to determine the relative weights of each. This method helps to systematize and quantify subjective judgments, make their comparison and objectify the choice between various resource options, taking into account the unique set of conditions and restrictions faced by an industrial enterprise in Ukraine.

Taking into account the specifics of the external environment in Ukraine, through the method of analysis and expert analysis of the opinions of industry experts, we will highlight the financial resources that the vast majority of industrial enterprises have. Under conditions of war, Ukrainian industrial enterprises do not have much choice. Therefore, almost all industrial enterprises in Ukraine have only three main directions to increase competitiveness in conditions of martial law.

1) through our own means, created separately for this purpose, to increase the level of competitiveness,
2) through raising funds from other funds, accounts and reserves of the enterprise,
3) through obtaining favorable credit conditions or financial assistance as a result of military operations.

The resource supply system should be one that allows the use of several options with combinations according to needs in order to increase the level of economic security of an industrial enterprise.

It should be noted that according to the majority of mathematicians (Bosak et al., 2021; Musfi, 2022), for a methodological approach through the system analysis method, the scale for assessing the provision of resources should occur in three levels:

1) Low level of financial resources and the process of increasing the level of economic security of an industrial enterprise. This level does not allow for increasing the economic security of an industrial enterprise. It stops.
2) The average level of provision of financial resources to the process of increasing the level of economic security of an industrial enterprise. The level at which there is a likelihood of achieving success and realizing the enterprise security goals set.
3) A high level of provision of financial resources to the process of increasing the level of economic security of an industrial enterprise. This is not just a level with a greater likelihood of achieving success and achieving goals. At this level, we can talk about accelerating this process as a whole.

Each level of financial resource support for the process of increasing the level of economic security of an industrial enterprise in a dynamic external environment must be mathematically designated (Table 1).

Table 1: Mathematical identification of levels of financial resource support

Level name	Financial resources (f_j)
Low level of financial resources	f_1
Average level of financial resources	f_2
High level of financial resources	f_3

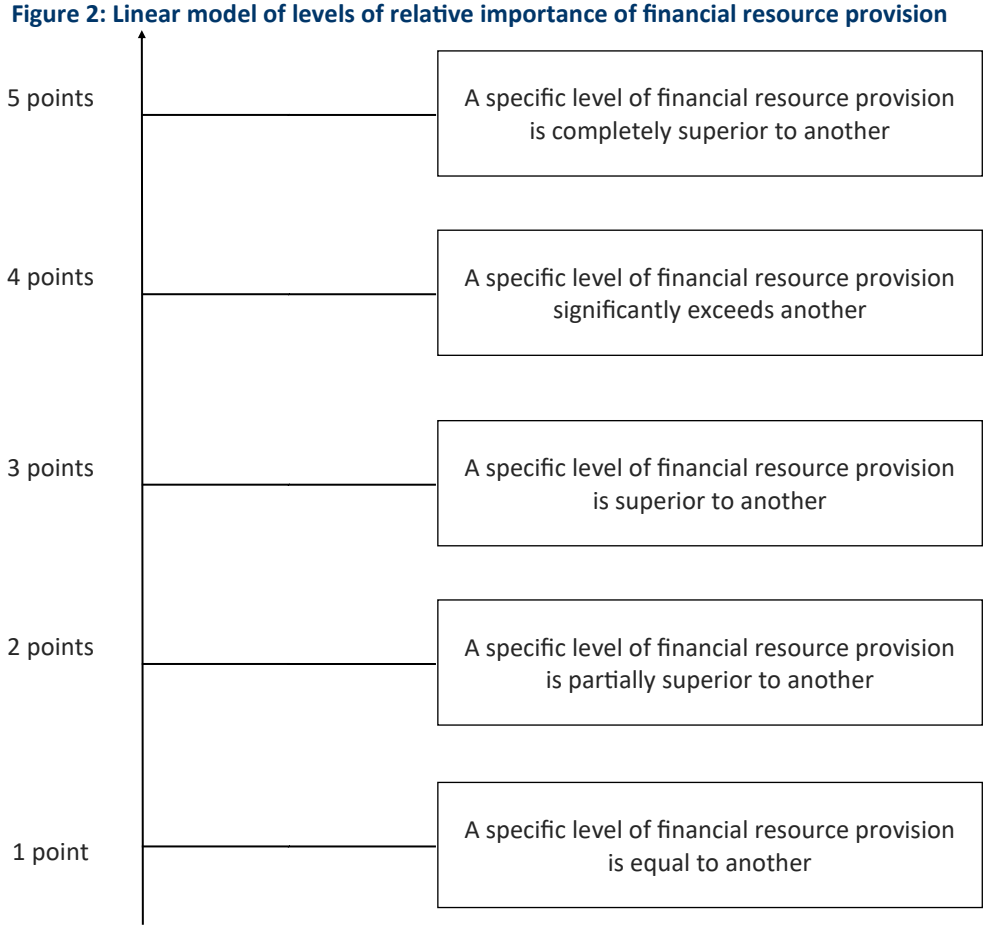
Source: Authors own work.

In order to summarize the opinion of experts (experts on industry and security of Ukrainian enterprises were involved through the expert survey method) regarding the relative importance of the level of financial resource support for the process of increasing the level of economic security of an industrial enterprise, a special linear model was used (Figure 2).

The methodology section of our study combines various analytical methods, including the Delphi expert survey, multi-criteria evaluation, and paired comparison, to assess financial resource management strategies for Ukrainian industrial enterprises during martial law in Ukraine. The Delphi method was crucial in gathering nuanced insights from experts in industrial finance, economic security, and crisis management. This method involved multiple rounds of surveys, starting with broad questions about the three main strategies for enhancing competitiveness and gradually focusing on more specific aspects based on expert consensus. The expert opinions obtained were then systematically analyzed using multi-criteria evaluation and paired comparison methods. This integration allowed for a comprehensive and structured comparison of various financial strategies, ensuring a balanced consideration of expert insights and analytical rigor. This approach provided a robust decision-making framework, crucial for understanding the feasibility and impact of each strategy on the economic security of the enterprises in the challenging context of Ukraine.

Regarding the selection of the linear model, as detailed, this choice was driven by the need for simplicity and clarity in modeling complex systems under uncertain conditions. The linear model serves as an effective starting point, offering a clear framework for initial analysis and facilitating the understanding of the impact of different financial strategies. The simplicity of the linear model provides a structured way to begin dissecting the problem and identifying key variables, despite the dynamic and complex nature of the situation in Ukraine.

Figure 2: Linear model of levels of relative importance of financial resource provision



Source: Author's own work.

It should be noted that these two levels of financial resource support for increasing the level of economic security of an industrial enterprise, compared with each other, depending on the impact they have on this process, form an assessment of importance, which will include the corresponding element of the paired comparison matrix itself. Thanks to the choice of the system analysis method, the entire diagonal of the matrix will be 1, and the lower part will include the inverse values.

Results

Resource support for increasing the level of economic security of an industrial enterprise can be interpreted as a comprehensive strategy and tactics for managing all types of resources that the enterprise has: material, financial, information, labor and others, in order to minimize risks and ensure stable operation in a dynamic external environment.

In accordance with the dynamics of the external environment, an enterprise is faced with a number of variable factors, such as changes in prices for raw materials, exchange rate fluctuations, changes in legislation, technological innovations, changes in supply and demand in markets, political risks, etc. Effective resourcing takes these aspects into account and strives to optimize them. From a financial perspective, this means managing cash flow, credit and investment resources in a manner that ensures liquidity, debt reduction, tax liability optimization and asset growth. The enterprise must have the ability to withstand financial shocks, have access to reserve and stabilization funds, and also respond appropriately to crisis events.

So, let us present the basic calculations for comparing the levels of financial resource support we have determined for the process of increasing the level of economic security of an industrial enterprise. Table 2 presents the results of calculating the normalized priority vector of the established matrix, which we denote mathematically as Mn. The matrix values (λ_{max}), the consistency ratio (WY) and the consistency index itself (IY) were also calculated.

Table 2: The main results of calculating a comparison of the levels of resource support for the process and matrix consistency

Financial support for the process of implementing a mechanism for increasing the level of competitiveness of an industrial enterprise			
f_{ij}	f_1	f_2	f_3
f_1	1.00	4.00	5.00
f_2	0.25	1.00	2.00
f_3	0.20	0.50	1.00
M_n	0.68	0.19	0.11
	λ_{max}	IY	WY
Result	3.02	0.01	0.02

Source: Author's own work.

It should be noted that a positive result in this case is a situation where the level of convergence of the comparison process and the consistency of expert opinion is satisfactory. This is only if the requirement WY ≤ 0.1 is met. For financial resources to ensure the process of increasing the level of economic security of an industrial enterprise, calculations of paired comparisons are positive, since the consistency ratio is less than 0.1.

But not only the system analysis method was used. The method of paired comparisons based on the preference of options also took an active part in the calculations. This method is effective for identifying opportunities for optimal provision of resources to a specific process. In our case, this was increasing the level of economic security of an industrial enterprise. The method involves assessing alternative possibilities for financial resource support for increasing the level of economic security of an industrial enterprise.

So, let's evaluate the alternatives in financial resource support for increasing the level of economic security at the appropriate levels: low, medium or high. This is necessary to find indicators of the utility function for each resource supply option at different levels.

Let us compare the financial resources for increasing the level of economic security, taking into account the corresponding levels of support (Table 3). Overall, the comparison results showed that the level of agreement was acceptable (WY ≤ 0.1).

Table 3: Main results of calculating the comparison of financial resources by level of support

Comparison of financial resources based on the low level of support for the process of increasing the level of economic security of an industrial enterprise			
min	**f_1**	**f_2**	**f_3**
f_1	1.00	0.500	0.250
f_2	2.00	1.000	0.330
f_3	4.00	3.000	1.000
M_n	0.13	0.230	0.620
	λ_{max}	IY	WY
Result	3.01	0.009	0.010
Comparison of financial resources by the average level of support for the process of increasing the level of economic security of an industrial enterprise			
mid	**f_1**	**f_2**	**f_3**
f_1	1.00	0.500	0.333
f_2	2.00	1.000	0.500
f_3	3.00	2.000	1.000
M_n	0.16	0.290	0.530
	λ_{max}	IY	WY
Result	3.01	0.005	0.008

Comparison of financial resources with a high level of support for the process of increasing the level of economic security of an industrial enterprise			
max	f_1	f_2	f_3
f_1	1.00	0.500	0.500
f_2	2.00	1.000	0.500
f_3	2.00	2.000	1.000
M_n	0.19	0.310	0.490
	λ_{max}	IY	WY
Result	3.05	0.020	0.040

Source: Author's own work.

Thus, we have every opportunity to calculate the utility function for each type of financial resource support (YR_{ij}) of the process of increasing the level of economic security of an industrial enterprise at different levels (Table 4).

Table 4: Indicators of the usefulness of the main types of financial resource support for the process of increasing the level of economic security of an industrial enterprise at different levels

The usefulness of basic financial security options			
Y_{Rij}	Y_{Ri1}	Y_{Ri2}	Y_{Ri3}
Y_{R1j}	0.13	0.23	0.62
Y_{R2j}	0.16	0.29	0.53
Y_{R3j}	0.19	0.31	0.49

Source: Author's own work.

In order to simplify the presentation of calculations, we will create a summary matrix. The elements of the normalized vector of priorities make it possible to establish a certain significance of the types of certain resources according to the levels of their provision of the process of increasing the level of economic security of an industrial enterprise (D_i). The value of the utility of certain resources (Y_{Ri}) in our situation for our enterprise under martial law has three options.

The matrix of utility function values and evaluation of options for monetary resource support for the process of increasing the level of economic security of an industrial company is presented in Table 5.

Table 5: Summary matrix of utility function values and assessment of options for financial resource support for the process of increasing the economic security of an industrial enterprise

Utility function value	
$Y_{R1} = D_{R1}Y_{R11} + D_{R2}Y_{R21} + D_{R3}Y_{R31}$	$Y_{R1} = 0.14$
$Y_{R2} = D_{R1}Y_{R12} + D_{R2}Y_{R22} + D_{R3}Y_{R32}$	$Y_{R2} = 0.25$
$Y_{R3} = D_{R1}Y_{R13} + D_{R2}Y_{R23} + D_{R3}Y_{R33}$	$Y_{R3} = 0.59$

Source: Author's own work.

Having calculated according to the system of equations presented in Table 5, we will obtain the necessary data on the weight of each type of resource to increase the level of economic security of an industrial enterprise. As for financial support, according to the results of calculations and taking into account the need for them, the best option would be funds through obtaining favorable credit conditions or financial assistance due to military operations (Y_{R3}). Of course, under martial law there is strong international support for Ukraine, and such funds can be obtained more easily and faster than in peacetime. However, not all businesses may be so lucky. In the case of an average industrial enterprise choosing such a rational option, and due to unpredictable events that it will not work out, you should pay attention to the alternative Y_{R2} - raising funds from other funds, accounts and reserves of the enterprise.

Discussion

When discussing our results, we should compare them with similar ones in this area. However, in order to simplify and not expand the material of this article with a large amount of other people's research, we will present a generalized vision of where the scientific community is moving on the issue of financial support for increasing the level of economic security. For example, the most popular topic for consideration is the topic of solving the problem of assessing the level of economic security of an enterprise as such (Lychenko

et al., 2021; Karaim et al., 2021). However, in our opinion, resource support should first be assessed, without which it is impossible to carry out any actions to increase the level of economic security for any enterprise. As for the financial aspect, some research results demonstrate this by considering financial security as a component of economic security (Krasko et al., 2019; Nikonenko et al., 2021). Note that there is a significant difference in the results of the study of financial resources and financial security. The third type of such research concerns the assessment of financial activities and financial risks and threats (Sudzius, 2010; Pisarenko, 2016; Hossain, 2018), through which one can approach the issue of ensuring the economic security of an enterprise in a new way. But, in our opinion, all components depend on resource support. However, it should not be said that our research is completely different; we also agree with the opinions of other scientists and practitioners. When discussing our results, we should highlight the similarities and differences compared to others (Table 6).

Table 6: Differences and similarities of our results

No.	Similarities	Differences
1	Agreement with the opinion and ideas that financial results are key to ensuring economic security	Our model includes the development of a new methodological approach that allows for a systematic approach to assessing financial security
2	A joint opinion on the priority of resource provision when it comes to increasing the level of economic security	Our assessment model is highly adaptive, allowing the integration of new data and changes in economic and political contexts, ensuring real-time relevance of decisions
3	Agreement with opinions that financial resources should be considered in the context of the specifics of the enterprise	Focus on real practice and can be used to formulate constructive solutions that allow enterprises not only to survive, but also to develop in difficult conditions

Source: Author's own work.

A scientific and practical approach to assessing the resource support for the implementation of a security mechanism is proposed, which, based on the actual limitations of human, organizational and financial resources at the disposal of security subjects of most Ukrainian enterprises, can significantly improve the efficiency of their use without reducing the effectiveness of actions that are aimed at increasing competitiveness.

Conclusions

To summarize, we should briefly but clearly outline what exactly we determined as a result of our research. We have presented a methodological approach to providing resources for increasing the level of economic security of an industrial enterprise in a dynamic external environment, which involves the use of modern technologies to calculate optimal options. Based on the methods of system analysis, multicriteria evaluation and pairwise comparison used, all possible options for financial resource support for implementing an increase in the level of economic security of an industrial enterprise in a dynamic external environment were structured. The calculation results made it possible to form a summary matrix of utility function values and evaluate options for resource support for the process of implementing an increase in the level of economic security of an industrial enterprise in a dynamic external environment were structured. The calculation results made it possible to form a summary matrix of utility function values and evaluate options for resource support for the process of implementing an increase in the level of economic security of an industrial enterprise in a dynamic external environment. The choice of rationale from possible options for financial resources is substantiated to ensure an increase in the level of economic security of an industrial enterprise in a dynamic external environment.

The study presents a new approach for optimally selecting financial resources to enhance the economic security of industrial companies in a dynamic external environment. However, it is important to clearly state the limitations and prerequisites of this approach for it to effectively support decision-making processes in improving economic security.

The approach is specifically tailored to the industrial sector, which inherently limits its applicability to other sectors that might have different dynamics and resource availability. Suitable for enterprises operating in fluctuating market conditions and external threats, like those in Ukraine, it presumes that these enterprises already possess a certain level of organizational, human, and financial resources. The methodology is designed to optimize the use of these existing resources rather than building them from the ground up. Therefore, enterprises looking to implement this approach

should already have the capacity for system analysis, multi-criteria evaluation, and paired comparisons. Additionally, a culture open to innovative approaches and change is crucial for the effective application of this methodology.

However, the study also has a number of limitations. First of all, this concerns taking into account the specifics of exclusively enterprises in the industrial sector of the economy, therefore the options for financial resources are adjusted to this. Additionally, we take into account the external environment of Ukraine, and not the whole world. Prospects for further research should be noted. Scientific works could study the issues of building economic resilience to external shocks, in particular, by developing adaptive financial mechanisms that can ensure the resilience of the industrial sector and the entire country's economy. Considerable attention in such studies should be paid to the analysis of external and internal financial instruments, policies and practices aimed at attracting investments, increasing competitiveness and developing innovative potential in the context of active globalization and technological changes. It is important that such studies take into account the specifics of post-war reform and the need to restore critical infrastructure, in particular in the industrial sector, which is key to the country's economic recovery.

References

Bhargava, M., Sharma, A., Mohanty, B. & Lahiri, M.M. (2022). Moderating role of personality in relationship to financial attitude, financial behaviour, financial knowledge and financial capability. International Journal of Sustainable Development and Planning, 17(6), 1997-2006, https://doi.org/10.18280/ijsdp.170635.

Blikhar, V., Kopytko M., Patsula, O., Synenkyi, V. & Bulachek, V. (2022). Management and legal aspects of economic security of enterprises in the process of innovation. Financial and Credit Activity Problems of Theory and Practice, 6(41), 360–368, https://doi.org/10.18371/fcaptp.v6i41.251445.

Blikhar, V., Kopytko, M., Lychenko, I., Vinichuk, M. & Polishchuk, R. (2021). Assessment of the level of economic security of innovative enterprises: economic and legal aspect. Financial and Credit Activity Problems of Theory and Practice, 3(38), 240–248, https://doi.org/10.18371/fcaptp.v3i38.237453.

Franchuk, V., Omelchuk, O., Melnyk, S., Kelman, M. & Mykytyuk, O. (2020). Identification the ways of counteraction of the threats to the financial security of high−tech enterprises. Business: Theory and Practice, 21(1), 1−9, https://doi.org/10.3846/btp.2020.11215.

Handayani, E., Sholihin, M., Pratolo, S. & Rahmawati, A. (2022). Do private universities achieve financial sustainability as a result of transformational leadership. International Journal of Sustainable Development and Planning, 17(8), 2365-2374, https://doi.org/10.18280/ijsdp.170803.

Jurgilevičiūtė, L. & Sūdžius, V. (2010). Relationship marketing in financial services. Business: Theory and Practice, 11(2), 116-123, https://doi.org/10.3846/btp.2010.13.

Kartuzov, E. (2012). Definition of financial security of an enterprise: concept, content, value and functional aspects. Economics and enterprise management. Actual Problems of the Economy, 8(134), 172−181.

Kopytko, M., Fleychuk, M., Veresklia, M., Petryshyn, N. & Kalynovskyy, A. (2021). Management of security activities at innovative-active enterprises. Business: Theory and Practice, 22(2), 299-309, https://doi.org/10.3846/btp.2021.13431.

Kuznetsova, N. & Pisarenko, Z.V. (2016). Financial convergence analysis: implication for insurance and pension markets. Business: Theory and Practice, 17(2), 89-100, https://doi.org/10.3846/btp.2016.536.

Lezgovko, A. (2007). Financial reinsurance: the effective tool of insurance company's stability management. Business: Theory and Practice, 8(2), 112-118, https://doi.org/10.3846/btp.2007.17.

Mackevičius, J. & Valkauskas, R. (2010). Methodology of the integrated analysis of company's financial status and its performance results. Business: Theory and Practice, 11(3), 213-221, https://doi.org/10.3846/btp.2010.24.

Mazumder, M.M.M. & Hossain, D.M. (2018). Research on corporate risk reporting: Current trends and future avenues. The Journal of Asian Finance, Economics and Business, 5(1), 29–41, https://doi.org/10.13106/jafeb.2018.vol5.no1.29.

Parubets, O., Shyshkina, O., Sadchykova, I., Yevtushenko, Y., Tarasenko, A. & Potseluiko, I. (2023). Dynamics of the development of the credit services market in the conditions of financial instability: A case of Ukraine. International Journal of Sustainable Development and Planning, 18(9), 2733-2745, https://doi.org/10.18280/ijsdp.180912.

Rieznyk, O., Treus, A. & Kozmenko, S. (2023). Priorities of impact investing in environmental protection projects: the case of the future post-war reconstruction of Ukraine. Business: Theory and Practice, 24(2), 459–472, https://doi.org/10.3846/btp.2023.18020.

Rushchyshyn, N., Medynska, T., Nikonenko, U., Kostak, Z. & Ivanova, R. (2021). Regulatory and legal component in ensuring state's financial security. Business: Theory and Practice, 22(2), 232-240, https://doi.org/10.3846/btp.2021.13580.

Savitri, E., Abdullah, N.H.N. & Musfi, P.N. (2022). The performance of the financial sector during the COVID-19 pandemic. Business: Theory and Practice, 23(2), 377–386, https://doi.org/10.3846/btp.2022.16670.

Sylkin, O., Bosak, I., Homolska, V., Okhrimenko, I. & Andrushkiv, R. (2021). Intensification of Management of Economic Security of the Enterprise in the Post-Pandemic Space. Postmodern Openings, 12(1), 302-312, https://doi.org/10.18662/po/12.1Sup1/286.

Sylkin, O., Buhel, Y., Dombrovska, N., Martusenko, I. & Karaim, M. (2021). The Impact of the Crisis on the Socio-Economic System in a Post-Pandemic Society. Postmodern Openings, 12(1), 368-379, https://doi.org/10.18662/po/12.1/266.

Sylkin, O., Zachepa, A., Bilous, S. & Krasko, A. (2019). Modeling the process of applying anti-crisis management in the system of ensuring financial security of the enterprise. Business: Theory and Practice, 20, 446-455, https://doi.org/10.3846/btp.2019.41.