CONCEPTUAL INDICATORS FOR THE EVALUATION OF ENTERPRISE EFFICIENCY

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Abstract

The article is devoted to the problems of the Russian-Ukrainian war and the management of enterprise development under significant crises, as a guarantee of post-crisis recovery and reconstruction. The article proposes indicators to assess management quality, which directly impacts efficiency (Dalyk et al., 2023). They allow a quick, high-quality initial assessment of the enterprise's efficiency and the possibility of a rapid choice of a recovery strategy as a supplement to in-depth analysis using classical methods. The study uses analysis, induction, deduction, and expert methods to develop a conceptual set of indicators. Proposed indicators are a clear list of interconnected indicators that enable an initial integrated assessment of the enterprise, its economic security, and its potential under conditions of military risk. Their peculiarity lies in their simplicity and their adaptability to other types of crises. Our proposals are based on the advantages of indicators related to the objectivity of marginal profit (Orlov & Riasnykh, 2003) and expert data processing. The results obtained may be valuable for stakeholders, researchers, investors, and government officials as tools for post-war crisis management.

Keywords: Post-War Development, Marginal Profit, Economic Security, Economic Potential, Evaluation of Enterprise Efficiency, Effectiveness of Activity, Management

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1. INTRODUCTION

Assessing an industrial enterprise's efficiency is a basic condition for effective management. This activity refers to controlling and maintaining compliance between the tasks set and the results achieved.

The efficiency of an enterprise is understood as the result of enterprise management, described by the results of its activities in various areas: financial, operational, investment, etc. (Dalyk et al., 2023; Huang & Said, 2025), and ensuring the effectiveness of activities, in particular innovation, must be ensured by the available funds (Blyzniuk & Kudriavtseva, 2023; Siri et al., 2025). According to another approach, Nazarenko (2022) understands efficiency as an economic concept that should be considered as a comprehensive assessment of the ratio of the effect obtained from the use of available resources to achieve the planned level of profit and the set goals of the activity. According to another approach (Garafonova & Vasylyuk, 2022), the economic efficiency of a business organisation is understood as a complex concept that is determined based on the efficiency of the components of business processes, which demonstrates how well the organisation uses its resources to create goods and services and their compliance with established norms, goals or standards.

Among foreign scholars, enterprise efficiency is the ability of an enterprise to optimally use its resources (financial and non-financial) to achieve

strategic goals in a dynamic market (Al Frijat & Al-Hajaia, 2025). Also, the primary incentive for improving efficiency is competition (Challoumis & Eriotis, 2024).

An analysis of various definitions and approaches to enterprise efficiency found that most definitions and approaches are similar across domestic and foreign authors. They define enterprise efficiency as the ability of an enterprise to use financial and non-financial resources to generate income and achieve set goals within the permanent limits of resources and time.

According to the issue of our research, we propose to supplement and expand the definition of the efficiency of enterprise activities in condition of war and post-war period in Ukraine: the efficiency of the enterprise is the activity for maximum and safe using of the resources available to the enterprise to maximise profits, achieve tactical and strategic goals and transform the internal and external environment of the enterprise's activities to reduce risks until the situation will stabilise. It is also important to note that the efficiency of the enterprise's activities under significant crises is dynamic and variable, moving at a pace that is difficult to plan. So, investors and other stakeholders need to transform a management system to assess the efficiency of the enterprise's activities under these conditions. The assessment of an enterprise's wartime efficiency should also include conducting operational efficiency diagnostics, as well as considering factors such as mobility and the ability to quickly relocate and protect personnel (Barman, 2025).

Evaluating an enterprise's effectiveness is a continuous, dynamic process carried out by various stakeholders in the enterprise's internal or external environment, including the analytical department, competitors, investors, and government agencies. Given the importance of this issue, the study aims to develop and theoretically test conceptual indicators to assess enterprise effectiveness, adapted to the instability and dynamism of the Ukrainian socio-economic system during the Russian-Ukrainian war and postwar periods. Also, these indicators must be useful for other types of significant crises.

Ukrainian and foreign theorists and practitioners take different approaches to assessing an industrial enterprise's efficiency. Still, the main task of such activity is to comprehensively study trends in the enterprise's use of resources, assets, and capital, as well as the overall trend of the entire economic entity (Derenska, 2023). Scientists also emphasise the need for a systemic and comprehensive approach (Ivanova, 2021).

It is worth noting that research on assessing the effectiveness of enterprise activities is ongoing. In modern practice, this issue is actively studied, examining the effectiveness of enterprise activities and their interactions from various perspectives. One of the main vectors relates to the improved Elman network and analytic hierarchy process based on the entropy weight (AHP-EW) methods (Zhang et al., 2022), which are used to assess the effectiveness of company cooperation. On the other hand, there is research on the financial strategy and management of enterprise efficiency through the lens of the main components (Tang & Aldulaimi, 2022). Also, assessing enterprise efficiency using modern advances in neural network algorithms (Fushan & Chunhui, 2023) and integrating the latest technologies (e.g., artificial intelligence and blockchain) into research on individual components that affect overall activity effectiveness (Supiati et al., 2024). The databases of many algorithms are based on Big Data (Zheng et al., 2024).

The main disadvantage of such approaches is the need for significant resources to conduct research. It does not align with the specifics and time constraints of managing and assessing efficiency during powerful and unexpected crises. Under such conditions, using approaches such as the objectives and key results (OKR) system proposed by Chen et al. (2022) is more expedient. It is also important to use tools that are based on the analytical abilities of experts, as more flexible and updated, for example, the method of analysis of hierarchies (Zhang et al., 2024).

The assessment of an enterprise's wartime efficiency should also include conducting operational efficiency diagnostics and considering factors such as mobility and the ability to quickly relocate and protect personnel. It is also worth considering the need for the enterprise to comply with the state's post-war recovery and development strategy. These could become key to post-crisis development.

As a result, we have formed assumptions and conclusions that form the following initial parameters of the quick diagnostic and creation of the post-crisis strategy:

- Using indicators based on expert assessments and indicators based on progressive and understandable approaches, such as indicators from the theory of the marginal approach (Orlov & Riasnykh, 2003).
- A small list of key indicators processed using an expert method allows for assessing the main financial, security and operational risks.
- A combination of indicators that help to evaluate activities with and without state influence (primarily tax policy). Cleaning indicators of state influence is important because it reduces the risk of distorted results from ineffective state policy, which is common in Ukraine and other countries during "BIG" crises.
- The indicators can be adopted for different enterprises, which will create the prerequisites for the possibility of comparative analysis.
- The indicators should be easy to understand for experts of different levels and experience.

Therefore, we define the study's task as developing conceptual indicators to assess the effectiveness of enterprises in the post-crisis economy, enabling rapid and effective evaluation and comparison. The solution to the task will enable the creation of an assessment system that is sufficiently objective and dynamic to support rapid decisions in comparative analysis. It can also help make decisions about the next steps and create a future strategy.

The study is divided into five parts. Section 1 describes the main task and purpose of the article, as well as the main provisions on which the study is based. Section 2 provides a review of the literature covering this issue. Section 3 reviews the materials and methods used in this study. Sections 4 and 5

present a description of the main results, as well as topics for future discussions. And the last, Section 6, summarises the conclusions that were obtained as a result of the study.

2. LITERATURE REVIEW

Issues related to the crisis and post-crisis management of industrial enterprises' efficiency and assessment are components of many studies in economics, marketing, management, and related fields. These issues are fundamental to all organisations.

Scientists approach the issue of efficiency research from different angles. For example, Proskurina and Hnidkova (2022) consider activity efficiency, measured by financial condition and financial results, to be the main indicators of enterprise efficiency. The authors recommend determining the set of financial indicators based on the assigned tasks and the level of research. Still, financial results are treated as the primary indicators and triggers for the study.

Rumyk et al. (2024) emphasise the need to study economic efficiency in the context of economic security. The importance of this approach lies in the need for a more in-depth assessment that considers operational risks, including financial, production, and other operational risks.

Martseniuk et al. (2023) also consider assessing the efficiency of industrial enterprises through financial indicators. However, the authors also emphasise the need for a deep assessment and use of the results:

- Reflect all resource costs.
- The system of indicators must not only describe the state of the enterprise but also provide an opportunity for making decisions on finding and attracting reserves to increase quantitative and qualitative indicators.
- The system of indicators should also be used as a basis for conclusions and actions.
- Maintaining the information function at all interested units, with a comprehensive and prompt information level.
- Clear criteria will help interpret the results and ensure the most objective reactions to the indicators.

Approaches by Ukrainian researchers for assessing an enterprise's effectiveness provide a comprehensive explanation of the issue under study. At the same time, it is worth paying attention to several clarifications:

1) The use of financial indicators is the most objective and widespread. Still, in the context of powerful crises, such as war, it is worth supplementing these measurable indicators with non-measurable indicators that characterise the enterprise's level of adaptability.

2) It is important to clarify that economic security and economic potential are mutually influenced and united, requiring a deeper understanding and study of this dimension of the issue.

3) The authors' approach, led by Martseniuk et al. (2023), is thorough and deep, but it is impractical for the first iteration of a comparative analysis of the effectiveness of different enterprises. This problem is caused by the need for significant resources when assessing several enterprises simultaneously, for example, when potential investors evaluate them.

4) It is recognised that tools that allow for comparisons between different businesses are needed (Burennikova, 2022). The importance of effective interaction is also confirmed by Skorobogatova (2022).

5) A separate issue is the study and justification of the importance of increasing the international competitiveness of Ukrainian enterprises in conditions of instability (Zybareva et al., 2022). This issue concerns maintaining enterprises' efficiency in a rapidly evolving global market.

6) The research of Ukrainian authors also supports the global trend of supporting the use of modern technologies (Akhmetzhanova et al., 2024). However, during a crisis, especially in wartime, they will require resources available only to large, powerful companies and their holdings.

In terms of formalised assessment of the efficiency of industrial enterprises, there are several of the most popular approaches that Chikov (2024) systematised in his work:

- Tobin's coefficient uses "valuable thinking" and is designed for strategic assessment of the efficiency of activities by managing financial flows and creating added value for stakeholders. The advantage of this approach is its strategic orientation. However, in the context of post-war recovery, it is important to assess the enterprise's actual capabilities, not its cash flows or added value for shareholders and owners.
- Economic value-added model. This model is also value-oriented and allows for errors when expertise is insufficient, which can lead to negative results in the strategic dimension. It can be used to assess investment attractiveness and opportunities to attract potential investors as a source of financing for measures aimed at real development.
- The author also identifies two modifications of the production function: Cobb-Douglas and Cobb-Douglas-Tinbergen. Using the listed functions enables a more in-depth assessment of the impact of economic growth factors (qualitative changes) on aggregate output. However, it is difficult to use this indicator to assess the enterprise's adaptability to changes in external factors.

The formalised evaluation functions listed above are practical and can be effectively used under normal market conditions. In the case of an enterprise operating under severe crises, such as war, evaluating it using these indicators may be incomplete because it does not assess the enterprise's ability to adapt. Another disadvantage is that, in some cases, the evaluation may require significant periods of time. The evaluation of enterprises within the framework of the post-war/post-crisis development strategy should take place in two stages: tactical (operational) and, only then, strategic (in-depth).

In summary, the problem of the orientation of most approaches to evaluating enterprise activities under market conditions and in "rapid crises" is emerging. In contrast, the assessment of the activities of enterprises operating under constant economic and physical threats is insufficiently developed.

3. RESEARCH METHODOLOGY

We used several tools to develop and evaluate the proposed approaches to assessing the effectiveness of enterprise activities during the post-crisis period (post-war reconstruction in Ukraine, in our case). The theoretical, methodological, and practical components are based on the work of Ukrainian and foreign scientists. Due to limited or absent data and the need to demonstrate the adaptability of indicators, the numerical indicators are abstract and based on our practical experience and the theoretical basis of previous research. All information used to develop concepts and calculations is publicly available and does not violate any ethical standards.

A simplified version of our research algorithm looks like this:

1. Studying the variability and scenario of the impact of significant crises and creating a hypothesis about the need for indicators that can complement classical instruments and decrease the time lags between the start of assessment and the making of management decisions.
2. Studying approaches to understanding the effectiveness of an enterprise.
3. Creating "basic" research criteria.
4. Selecting fundamental indicators that can be used in the proposed methodology and creating clear criteria and characteristics.
5. Forming a set of indicators that will be sufficient to demonstrate the capabilities of the indicators.
6. Calculation and analytics of indicators.
7. Interpretation of results and formation of conclusions.

The methods used in this article are as follows. Various forms of analysis were used to research theoretical articles, historical facts and research in the context of approaches to understanding and assessing the effectiveness of enterprise activities. Supplementation, adaptation, criticism, and development of concepts became possible through the expert method, combined with inductive and deductive methods, enabling the formation of the main assumptions, concepts, and proposals for solving the outlined issues and problems. The main problem of assessing the effectiveness of enterprise activities in wartime and post-war reconstruction was formulated using problem analysis and assessment of cause-and-effect relationships.

The tabular method was used to group and systematise criteria and initial data for testing the proposed concepts.

The abstraction method was used at the development stage to formalise parts of the assessment indicators and the interdependence of their elements.

The expert method was used as the main one not only in evaluating works and historical facts but also in forming final provisions, selecting main indicators, and creating a system for evaluating the indicators of the proposed concepts to assess the effectiveness of the enterprise.

The methods of formalisation and abstraction were used to form conclusions and generalisations and determine directions for further discussions and research. These will create topics for future discussions to expand and verify proposed hypotheses and concepts for assessing the effectiveness of the enterprise during post-war recovery and other significant crises, and for the recovery and development of individual enterprises or whole systems.

The proposed research procedure ensures the systematicity, reproducibility, and comprehensiveness of quickly assessing the efficiency of an industrial enterprise.

4. RESULTS

The basis of our research is the postulate that the post-crisis (in our case, war and post-war) period of development must combine classical methods and instruments for in-depth analysis with "light" methods for the initial stages of enterprise analysis, to begin transformations, and to choose the type of future strategy. The main goal is practice value, and theoretical development comes next. All our conceptual indicators were developed as additions to the classical instruments, not as replacements.

The effectiveness of the enterprise's activities in the conditions of significant crises and the post-crisis period must satisfy the following requirements:

1) combination of formalised and expert methods;
2) research will not require significant resources;
3) based on publicly available, standardised, and formalised indicators;
4) indicators should be understandable and "easy" to calculate and update;
5) compliance with the requirements and interests of the core systems of various levels:
   - management;
   - owners;
   - creditors;
   - employees;
   - investors and potential investors;
   - compliance with the state's recovery and development strategy;
   - compliance with security requirements.

In line with the requirements, we propose three indicators for different assessment stages.

At first, we propose to use a comparative integral indicator (*CII*) as a type of "light" and general indicator of the enterprise's compliance with the requirements of the state strategy, the security situation, and the effectiveness of general activities. This indicator can be effective for a quick, expert assessment of an enterprise. Also, it is possible to compare it with other enterprises' CIIs for further in-depth assessment. At the second level, we propose using an updated version of the integral indicator of activity (*IIA*) (this indicator, which we proposed in 2017) to assess enterprises more deeply and evaluate investment attractiveness. This indicator complements our assessment concept under conditions of future market stabilisation. It will also be useful to add an Assessment of the enterprise's economic security (according to the concept of the unity of economic security and potential) in post-war recovery and development conditions. The proposed indicator is designed to effectively assess the enterprise's activity, economic security, and its ability to counter negative influences in the future. Pohrebniak and Klishch (2023) confirm the importance of assessing economic security as a component of performance studies and emphasise the need to combine qualitative and quantitative indicators.

The methodology for using the proposed tools should be based on a systematic approach that combines economic and comparative methods, with a final study of the integral indicator. The basis for using the proposed indicators is generally available financial and industry data. The expert group should consist of representatives of the enterprise's top management and, at a minimum, include representatives of the analytics and marketing departments, as well as a group leader with delegated powers at the chief executive officer (CEO) level.

Also, the proposed indicators are primary, and after them, it is worth using classic tools.

The *CII* can ensure maximum use of "light" indicators for calculation, based on approaches to the marginal profit concept and earnings before interest, taxes, depreciation, and amortisation (EBIDTA). It allows for the minimisation of the time lag between the issue and a management decision.

From our point of view, the advantages of the *CII* will be:

- easy to understand and use, which allows for a reduction in the required level of analytical resources;
- comparative, and therefore such that it can be interpreted in comparative values;
- built on a set of indicators that decrease the effects of state policy in terms of mandatory payments and fees;
- components also allow for a quick analytical overview of the enterprise's current state;
- uses indicators that can practically be obtained from open sources.

At first, we need to describe the basis of the *CII*. The main component is a margin of safety (*MS*) (Orlov & Riasnykh, 2003), based on the marginal profit indicator, which allows to assess how close it is to the break-even point. This indicator determines the "sign" of the calculated indicator (negative, positive or zero). *EBITDA* is the second indicator that removes the influence of fiscal policy and will be used when calculating MS_{mod}, instead of the profit indicator in the classical formula. It is necessary to identify the "protection indicator" (*PI*) during crisis periods. *PI* helps us align *CII* from the influence of state policies (tax and depreciation policies), which is calculated as the ratio of profit to EBIDTA. Also, we need to calculate the percentage of debt (*PD*) obligations in the company's assets, which indicates its ability to continue operating in the event of a sharp change in market dynamics or a decline in key financial indicators. The alignment of the company's current activities with the country's goals and identified priority development and export policy areas is the final component that helps us make hypotheses about the future state's support.

The stages of calculating the *CII* of the company's development prospects:

1) Calculate the modified MS_{mod} as the ratio of EBIDTA to the marginal profit indicator. According to the data obtained, the "arithmetic sign of the indicator" will be determined: in the case of a negative value, "-" will be assigned, in the case of a positive value, "+", and in the case of a zero value, the sign is not used.

2) Calculate the *PI*, which will take 0 for negative and zero values (we declare that in a dynamic market, negative and zero values in the operational assessment are equivalent) and 1 for a positive value.

3) Calculate the *PD*, which will be used as a decimal value: the smaller the value, the better.

4) Assigning the enterprise a value of "+" if it complies with the state strategy and export policy (in the absence of an export policy, only the compliance with the state strategy is considered), and "-" if there is no such compliance, since an additional risk of negative influence of the state apparatus is formed.

5) Formation of *CII* with additional descriptors. The numerical value must be nonzero but tend to zero.

The general form of the indicator is as follows in Eq. (1):

$$\begin{gathered}(MS_{mod}; PI; PD; Mark\ of\ conformity) \\ CII = MS_{mod}\ Mark\ of\ conformity\ (Attributed\ value\ PI) * PD\end{gathered} \quad (1)$$

We propose using the *IIA* to assess the enterprise's attractiveness to potential investments from the perspectives of managers, owners, creditors, and potential buyers and investors.

Stages of determining the indicator:

1) Calculation of component indicators.

2) Assignment of values according to the criteria table (see Table A.1 in the Appendix). The values that can be obtained (simple arithmetic sum) will range from 0 to 11 points. 0 points — this is an outsider company that is irrelevant in terms of the post-war market recovery support system, and 11 points — this is a "star" of the market, which should be checked according to the criteria of systematicity and determination of possible future support. The ranking system: 1–2 points — outsiders; 2–5 points — an enterprise with problems; 6–9 points —companies with efficiency at the level of efficient enterprises; 10–11 points — market leaders.

3) Expert assessment of the data.

Regarding economic security, the assessment should begin with a remark that reflects the concept of economic security as a unified measure of the enterprise's economic potential. Economic security is not an autonomous module outside the company's structure and competencies but is closely intertwined with the main flows of information and resources. It requires maximum awareness at all levels, but is often consciously or unconsciously ignored at Ukrainian enterprises. Economic potential is not the opposite of economic security; it complements it. This concept of the unity of economic security and potential meets the assessment requirements during war and post-war development, as well as during other essential crises. The proposed conceptual approach to evaluating the enterprise's economic security is given in Table A.2.

So, we proposed a system of eight indicators that provide the most objective and expert assessment, largely free of subjective influence. It is also worth noting that the proposed indicators relate to economic security in wartime and crisis times; therefore, the importance of each indicator should be assessed as equal. In this regard, we offer the formula for evaluating economic security (ES_{wt}) in the following form.

$$ES_{wt} = \frac{Attributed\ values\ \sum(MS;\ PS;\ CP;\ AD;\ Log;\ Mob;\ ShT;\ Ftr)}{8} \quad (2)$$

The calculated economic security indicator could fall within the range [-1; 1]. It will create an objective basis for further expert assessment of the enterprise by assessing the reasons for approaching or moving away from 0. An indicator equal to 0 indicates an unstable state of economic security, which tends to shift to -1.

The economic potential indicator is the next component of the enterprise's assessment during the war and post-war development. Its components are given in Table A.3. The proposed conceptual scheme for assessing economic potential in wartime meets the requirements of maximum objectivity. However, because of differing planning horizons, this method relies more on expert assessments and requires more powerful analytical resources.

We consider it worthwhile to conduct a general assessment of the economic potential of wartime as follows:

$$EP_{wt} = \frac{Attributed\ values\ \sum(IP;\ EUR;\ PS;\ \Delta MP;\ \Delta E;\ \Delta RI;\ \Delta MA;\ \Delta RN;\ LD;\ Dev;\ PI)}{11} \quad (3)$$

The indicators obtained using Eq. (3) will fall within the interval [-1; 1] and characterise the enterprise's potential based on its distance from 0. Low potential and a tendency toward evolutionary development will characterise low potential, while market dynamics and conditions remain unchanged.

The final step in assessing the security and prospects of the enterprise's activities in conditions of war and post-war development is to determine the integral security indicator (*ISI*):

$$ISI = \sqrt[2]{ES_{wt} \times EP_{wt}} \quad (4)$$
$$(if\ both\ indicators\ are\ negative, then\ ISI\ retains\ a\ negative\ value)$$

The values of *ISI* will be within [-1; 1] and will create the prerequisites for forming an objective expert assessment. The assessment will be within the following limits:

- values less than zero will indicate the lack of security of the enterprise's development and will signal a possible rapid bankruptcy;
- zero values will indicate the precarious position of the enterprise with a high threat of bankruptcy in the absence of adequate actions;
- positive values will indicate the presence of potential for effective post-war development of the enterprise.

The distance of the indicators from zero, in correlation with the ES_{wt} and EP_{wt} indicators, will provide the basis for an expert assessment of the obtained values and for identifying decisions and actions to support and improve the enterprise's state, reduce risks, and increase its potential.

Let us consider a conditional example of using indicators; the initial data are given in Table 1.

The results of calculating the main indicators proposed in this article are presented in Table 2.

Table 1. Initial data for calculating key indicators

Indicator	*Values*		
	Company 1	*Company 2*	*Company 3*
Profit, thousand UAH	3265	1115	1708
Income, thousand UAH	36865	20391	6913
EBIDTA, thousand UAH	5119	1468	2099
Variable costs, thousand UAH	16141	14974	2791
Average annual equity, thousand UAH	26944	11879	1433
Assets, thousand UAH	34323	13686	11224
Debt liabilities, thousand UAH	7885	1905	9792
Profit on shareholders' equity, thousand UAH	3265	1115	1708
Shareholders' equity, thousand UAH	0	0	0
Fixed costs, thousand UAH	17485	4294	2413
Marginal profit, thousand UAH	20724	5417	4122
Working capital, thousand UAH	23285	3904	4948
Short-term liabilities, thousand UAH	5020	1905	8477
Compliance with the recovery strategy	+	-	+
Contribution margin ratio	0.56	0.27	0.60
Break-even ratio indicator	0.84	0.79	0.59
Margin of safety	0.16	0.21	0.41
Margin of safety mod.	0.25	0.27	0.51
Protection indicator	0.64	0.76	0.81
Percentage of debt	0.23	0.14	0.87
Income-based profitability, %	8.86	5.47	24.7
ROE, %	12.12	9.39	119.19
Return on shareholders' capital, %	-	-	-
Current ratio	4.64	2.05	0.58
Personnel sufficiency	0.93	0.75	0.81
Equipment utilisation rate	0.80	0.85	0.83
Share of export activity	0.1	0	0

Source: Author's compilation.

Table 2. Conditional example of using *CII, IIA,* ES_{wt}, EP_{wt} and *ISI*

Indicator	*Values*		
	Company 1	***Company 2***	***Company 3***
CII	(0.25; 0.64; 0.23; +) ++0.23	(0.27; 0.76; 0.14; -) +-0.14	(0.51; 0.81; 0.87; +) ++0.87
IIA	8.66	8.66	8.32
ES_{wt}	0.250	0.125	0.375
EP_{wt}	0.125	0.182	0.000
ISI	0.177	0.151	0.000

Source: Author's compilation.

According to the results in Table 2, a comparison of the indicators shows that Company 1 and Company 2 are the most promising for further development. Given the previously described conditions and the adaptation of indicators for war and post-war recovery, it is worth paying attention to Company 1, which aligns with the country's recovery strategy and has a high *IIA*. Based on market conditions, Company 2 could be first, with a corresponding *IIA*, but a lower *CII,* and better indicators for the primary descriptors. Also, Table 2 shows that Company 1 has a larger positive *ISI*. *ISI* and the preliminary assessment results indicate the selected company's prospects for further development. These conclusions can also recommend an in-depth evaluation and auditing using generally recognised and classical assessment methods. At the same time, it is worth noting that the studied company demonstrates higher indicators of economic security than of economic potential, which shapes the main vectors of development management under the conditions of post-crisis recovery. It is necessary to increase economic potential to a level that corresponds to economic security, with further increases in both indicators.

5. DISCUSSION

This article describes up-to-date instruments aimed at addressing the critical issues facing modern Ukraine, including effective post-war recovery and development. The results obtained in the study are new and have no counterparts in the work of other scientists. In this regard, it is worth emphasising the limitations and challenges of the obtained results. We proposed short-term instruments for the fast analysis of efficiency and to make first-stated decisions. Our instruments were developed as a method that must work before classical instruments, not instead of them. Future research requires further development and testing within the framework of research and practical use, the development of expert assessments and additions, and consistency between different experts.

Additionally, the indicators proposed in this article are unique in certain aspects and outline the instruments for fast and effective evaluation during the post-war recovery and development. At the same time, they can also be applied to other significant crises by adjusting some indicators (for example, we can replace the physical destruction indicator with others).

The current situation in Ukraine is unprecedented compared to other instances in world history, and the results obtained also form prospects for further research:

- refinement and possible adaptations of the proposed indicators;
- formation of systematic approaches to assessment using the proposed indicators;
- critical analysis and evaluation of the proposed indicators.

It is also worth noting that the proposed indicators were developed within the framework of a study on enterprise management in Ukraine's post-war reconstruction, and therefore, have appropriate limitations — they are adapted to conditions that correspond to the current realities.

Our work is just one of many studies on post-war development, and it should be translated into concrete actions within short-term limits. The primary recommendation is to explore issues within complex progressive practices. Moreover, businesspeople and progressive politicians must now transform the system using new tools and innovative ideas.

6. CONCLUSION

Our research focuses on the Russian-Ukrainian war and the challenges it has created for enterprises. Its main scope is the practical use of the proposed instruments to help make quick management decisions. They also complement classical instruments and can be adapted to other crisis conditions.

The article is based on publicly available data and analytics from other studies and works. Our work is dedicated to assessing company performance. It is part of a broader topic that unites the work of Ukrainian and foreign researchers in studying and evaluating the effectiveness of enterprise performance.

The result of our research is a conceptual set of formalised, expert indicators that will allow us to quickly and qualitatively assess the enterprise's activities and development potential. The data obtained will allow us to answer how an investor can quickly and competently select enterprises that are more efficient and better aligned with the recovery strategy, with minimal assessment costs.

The proposed conceptual tools allow for a quick and high-quality assessment of activities at different stages:

- Comparative integrated assessment to select the most interesting enterprises.
- Integrated assessment of selected enterprises to study the primary descriptors of activity.
- An additional integral assessment of enterprise security that examines economic security and the economic potential of the enterprise as a unified whole.

The study results also highlight the need to use indicators from the marginal profit system. It enables a comprehensive, highly efficient evaluation of enterprise performance using easily calculated, accessible data. An essential aspect of

the study is the assumption of limited time and analytical resources, which enables the proposed calculations to be tested and adapted across different systems because of their relative simplicity. The potential users of the study's findings include researchers and students conducting academic investigations, as well as stakeholders and politicians engaged in practical research and activities to establish an effective system for post-war reconstruction and development. The primary purpose of the proposed concept is to be applied in real-world activities.

The main limitations of the study are: 1) focus on the significant role of experts' work, which entails risks and errors of incompetence or low qualification of experts; 2) simplicity of indicators, in addition to an advantage, is also a disadvantage, since it is not sufficient for making a final decision; and 3) requires further research and extensive practical testing due to a theoretical basis.

The study's limitations also shape the prospects for further research into developing comprehensive tools to manage companies' development during Ukraine's post-war reconstruction or other crises under different conditions.

The results of our research are important for future theoretical research and practical use, serving as a first step toward making quick decisions in real life, not only on paper. Economic entities should be prepared for post-crisis recovery at all levels, not only within large holdings or active startups.

REFERENCES

Akhmetzhanova, N., Tapalova, A., Gabbassova, Z., Shadiyeva, A., Akhmetova, G., Onlassynov, Y., Saparbaev, M., & Yerzhanova, Z. (2024). Development of a methodology for assessing the efficiency of an agribusiness enterprise in using digital technologies. *Eastern-European Journal of Enterprise Technologies, 5*(13(131)), 48–57. https://doi.org/10.15587/1729-4061.2024.312486

Al Frijat, Y. S., & Al-Hajaia, E. M. (2025). Auditor's technical, digital, and creativity skills and their role in supporting audit outcomes in light of digital transformation strategy. *Corporate Board: Role, Duties and Composition*, *21*(1), 60–70. https://doi.org/10.22495/cbv21i1art6

Barman, N. (2025). Beyond goodwill: Examining the corporate social responsibility-operational efficiency nexus in the context of sustainable banking [Special issue]. *Corporate Governance and Sustainability Review*, *9*(3), 287–296. https://doi.org/10.22495/cgsrv9i3sip9

Blyzniuk, A., & Kudriavtseva, O. (2023). Suchasni metody innovatsiynoho upravlinnya pidpryyemstvom [Contemporary methods of innovative enterprise management]. *Economics of the Transport Complex*, *41*, 32–40. https://doi.org/10.30977/ETK.2225-2304.2023.41.32

Burennikova, N. V. (2022). Ekonomika pidpryyemstva: Onovleni pidkhody do benchmarkinhu v konteksti modelyuvannya rezul'tatyvnosti diyal'nosti ta bahatovymirnoho ranzhuvannya [Enterprise economics: The updated approaches to benchmarking in the context of performance modelling and multidimensional ranking]. *Business Inform*, *3*, 79–86. https://doi.org/10.32983/2222-4459-2022-3-79-86

Challoumis, C., & Eriotis, N. (2024). The role of competition in private enterprise and its implications for market efficiency. *Economics and Finance*, *12*(3), 27–34. https://doi.org/10.51586/2754-6209.2024.12.3.27.34

Chen, D., Chen, J., & Ning, M. (2022). Research on enterprise performance management from the perspective of OKR. In *Proceedings of the 2022 International Conference on County Economic Development, Rural Revitalization and Social Sciences (ICCRS 2022)* (pp. 91–95). Atlantis Press. https://doi.org/10.2991/aebmr.k.220402.019

Chikov, I. A. (2024). Teoretyko-metodychni aspekty naukovykh pidkhodiv do otsinky efektyvnosti diyal'nosti pidpryyemstv APK [Theoretical and methodological aspects of scientific approaches to assessing the efficiency of the activities of agriculture enterprises]. *Entrepreneurship and Trade*, *41*, 104–117. https://doi.org/10.32782/2522-1256-2024-41-14

Dalyk, V., Chorniy, B., Harasym, L., Bobko, O., Georgievskij, N., & Farian, V. (2023). Zabezpechennya efektyvnosti diyal'nosti pidpryyemstva [Ensuring the efficiency of the enterprise]. *International Scientific Journal "Internauka". Series: "Economic Sciences"*, *10*. https://doi.org/10.25313/2520-2294-2023-10-9189

Derenska, Y. M. (2023). Otsinka efektyvnosti diyal'nosti pidpryyemstvA [Evaluation of the efficiency of the enterprise's activities]. *Mechanism of an Economic Regulation*, *1*(99), 81–85. https://doi.org/10.32782/mer.2023.99.13

Fushan, M., & Chunhui, S. (2023). Simulation of enterprise performance evaluation data indicators based on improved neural network algorithm and parameter optimization. *Soft Computing*. Advance online publication. https://doi.org/10.1007/s00500-023-08926-y

Garafonova, O., & Vasylyuk, N. (2022). Kontseptual'ni pidkhody do protsesu upravlinnya efektyvnistyu diyal'nosti biznes-orhanizatsiy [Conceptual approaches to the process of managing the efficiency of business organisations]. *Economic Synergy*, *3*(5), 27–37. https://doi.org/10.53920/ES-2022-3-3

Huang, X., & Said, F. F. (2025). Assessing the impact of financial technology on the efficiency of banks: A systematic literature review approach. *Risk Governance and Control: Financial Markets & Institutions, 15*(4), 85–96. https://doi.org/10.22495/rgcv15i4p8

Ivanova, V. (2021). Upravlinnya innovatsiynoyu diyal'nistyu pidpryyemstva: Otsinka efektyvnosti protsesu [Management of innovative activities of enterprises: Assessment of the efficiency of the process]. *Bulletin of Postgraduate Education, 16*(45), 162–175. https://doi.org/10.32405/2522-9931-2021-16(45)-162-175

Martseniuk, O., Davydiuk, V., & Ruzhytska, K. (2023). Faktory pidvyshchennya efektyvnosti diyal'nosti pidpryyemstva v suchasnykh umovakh hospodaryuvannya [Factors for increasing the efficiency of enterprise activities in the modern economic conditions]. *Black Sea Economic Studies*, *81*, 107–112. https://doi.org/10.32782/bses.81-18

Nazarenko, I. (2022). Ekonomichnyy zmist efektyvnosti diyal'nosti pidpryyemstv [Economic content of the enterprise's efficiency]. *Galician Economic Journal, 3*(76), 15–22. https://doi.org/10.33108/galicianvisnyk_tntu2022.03.015

Orlov, O., & Riasnykh, Y. (2003). *Marginal profit in economic calculations at industrial enterprises.* Skarby.

Pohrebniak, A., & Klishch, K. (2023). Intehratsiya naukovykh pidkhodiv do otsinyuvannya upravlinnya efektyvnistyu vykorystannya vyrobnychoho potentsialu pidpryyemstva z metoyu pidvyshchennya yoho ekonomichnoyi bezpeky [Integration of scientific approaches to the management assessment of the efficiency of using the production potential of the enterprise with the purpose of increasing its economic security]. *Economic Bulletin of National Technical University of Ukraine "Kyiv Polytechnical Institute", 25*, 49–53. https://doi.org/10.20535/2307-5651.25.2023.278601

Proskurina, N., & Hnidkova, A. (2022). Analiz finansovoho stanu ta finansovykh rezul'tativ yak instrument otsinky efektyvnosti diyal'nosti pidpryyemstva [Analysis of the financial condition and financial results as a tool for evaluating the efficiency of the enterprise]. *Ekonomika ta Suspilstvo, 43*. https://doi.org/10.32782/2524-0072/2022-43-74

Rumyk, I., Puzyrova, P., Khaliliaeva, O., & Semenov, K. (2024). Methodological approaches to assessing the efficiency of an enterprise in the context of economic security. *Market Relations Development in Ukraine*, *9*(280), 98–106. https://doi.org/10.5281/zenodo.14039342

Siri, P., Kraiwanit, T., Suradinkura, S., Kasemrat, R., & Moolngearn, P. (2025). Digital health management: A study of factors influencing its efficiency. *Journal of Governance & Regulation, 14*(4), 84–94. https://doi.org/10.22495/jgrv14i4art8

Skorobogatova, N. (2022). Creating the model of balanced business development based on ecosystem approach. *Technology Audit and Production Reserves*, *2*(4(64)), 6–10. https://doi.org/10.15587/2706-5448.2022.256610

Supiati, S., Paerah, A., Yoga, T., & Wulandari, S. H. E. (2024). A bibliometric analysis of the use of technology in employee performance evaluation: Trends and implications. *West Science Social and Humanities Studies*, *2*(5), 759–768. https://doi.org/10.58812/wsshs.v2i05.877

Tang, Y., & Aldulaimi, S. H. (2022). Enterprise financial strategy and performance management analysis based on principal component analysis. *Applied Mathematics and Nonlinear Sciences*, *8*(1), 1265–1276. https://doi.org/10.2478/amns.2022.2.0114

Zhang, C., Wu, X., Liu, Y., & Wei, X. (2024). Research on the construction and application of the original innovation performance evaluation system for provincial state-owned enterprises: A case study of enterprise A. In *Proceedings of the 2024 2nd International Conference on Management Innovation and Economy Development (MIED 2024)* (pp. 39–45). Atlantis Press. https://doi.org/10.2991/978-94-6463-542-3_6

Zhang, J., Ding, X., Hu, D., Guo, B., & Jiang, Y. (2022). Performance evaluation of enterprise collaboration based on an improved Elman neural network and AHP-EW. *Applied Sciences*, *12*(12), Article 5941. https://doi.org/10.3390/app12125941

Zheng, C., Chen, X., & Liu, M. (2024). Construction and validation of enterprise performance evaluation model based on Big Data mining algorithm. In *Proceedings of the 2024 International Conference on Digital Society and Artificial Intelligence* (pp. 415–420). Association for Computing Machinery. https://doi.org/10.1145/3677892.3677956

Zybareva, O., Shylepnytskyi, P., Krylov, D., Arefiev, S., Ozarko, K., & Hryhorkiv, M. (2022). Management of business projects of the enterprise as a factor of increasing international competitiveness in the conditions of global sustainability. *International Journal of Sustainable Development and Planning*, *17*(7), 2023–2032. https://doi.org/10.18280/ijsdp.170703

APPENDIX

Table A.1. Assignment of values of the obtained coefficients for calculating the integral indicator of the enterprise's performance

Indicator	*Attribute according to condition 1*	*Attribute according to condition 2*	*Attribute according to condition 3*	*Attribute according to condition 4*
Profitability level	Profitability level less than 0 ≥ 0	Profitability level less than industry average* ≥ 0.5	Profitability level equal to or higher than the industry average* ≥ 1	
EBIDTA	Negative and zero ≥ 0	Positive ≥ 1		
Profit	Negative ≥ 0	Zero ≥ 0.5	Positive ≥ 1	
Contribution margin ratio	From 0 to 0.5 ≥ 0.5	Above 0.5 ≥ 1		
Return on equity (ROE)	ROE less than average ≥ 0	ROE equal average ≥ 0.5	ROE higher than average ≥ 1	
Return on shareholders' capital	Rate less than average ≥ 0	Rate equal average ≥ 0.5	Rate higher than average ≥ 1	
Current ratio	Ratio is nearly 0 ≥ 0	Ratio is lower or higher than 2, more than 10% ≥ 0.5	Ratio is between 1.8 and 2.2 ≥ 1	
Debt-to-assets ratio	exceeding 100% ≥ 0	Below 100% ≥ 1		
The company's market value	Less than analogues ≥ 0	Equal or higher than analogues ≥ 1		
Break-even ratio indicator and its dynamics over five years	Approaches zero (not exceeding 0.1) with a negative trend ≥ 0	Approaches zero (not exceeding 0.1) with a positive trend ≥ 0.33	Higher than 0.1 with a negative trend ≥ 0.66	Higher than 0.1 with positive dynamics ≥ 1
Market part and correlate with the number of known competitors	Market share declines concurrently with a decrease in the number of competitors ≥ 0	Market share is decreasing despite a stable or an increase in the number of competitors ≥ 0.33	Market share remains stable or increases with a decrease in the number of competitors ≥ 0.66	Market share increases alongside an increase in the number of competitors ≥ 1

*Note: * Industry average — meaning the industry average for this type of production.*
Source: Author's compilation.

Table A.2. Conceptual approach to assessing the economic security of an enterprise in conditions of war and post-war development

Indicator	*Reference values*	*The concept behind the indicator*	*The value attribute*
Margin of safety (*MS*)	• = 0 — company shows no profit or loss; • < 0 — company operates at a loss; • > 0 — company is profitable.	The safety margin demonstrates the company's "proximity" to unprofitability.	• 0, if *MS* = 0; • -1, if *MS* < 0; • 1, if *MS* > 0.
Personnel sufficiency (*PS*): the proportion of available staff relative to the projected staffing requirement	• = 1 — company is well-resourced; • < 1 — staff shortage; • > 1 — existing staff reserve.	The indicator signals possible problems with staff.	• 0, if *PS* = 1; • -1, if *PS* < 1; • 1, if *PS* > 1.
Capital productivity (*CP*)	Assessment of dynamics during the classical period of three years	Assessment of the efficiency of the use of fixed assets	• 0, if the dynamics are stable; • -1, if the dynamics are negative; • 1, if the dynamics are positive.
Overall depreciation rate of fixed assets: the proportion of the net book value to the original cost of fixed assets (*AD*)	Assessment of dynamics during the classical period of three years	Assessment of the level of outdated equipment utilisation	• 0, if the dynamics are stable; • -1, if the dynamics are negative; • 1, if the dynamics are positive.
Availability of backup logistics routes (*Log*)		The reliance on a single route or carrier in logistics chains significantly increases risks.	• 1, if there are developed and tested alternative logistics routes; • -1, if there are no such routes.
Mobility of assets and personnel (*Mob*)	• -1, if relocation is not possible; • 0, if the relocation is costly and will lead to a decrease in *MS* less than 0; • 1, if there is a relocation project and it does not result in *MS* falling below zero.	Characterises the ability of the enterprise to relocate if necessary, and the impact of relocation on the breakeven point of the enterprise.	Corresponds to reference values
Availability of physical shelters (*ShT*)	• -1, if shelters were not constructed or modernised; • 0, if the shelters provide protection only from small arms fire; • 1, if the shelters provide a protection class higher than the protection class against small arms.	Characterises the company's ability to protect staff	Corresponds to reference values
Availability of developed scenarios for the development of events (*Ftr*)	• -1, if the scenarios are not developed; • 0, if scenarios are not developed, but the analytical department is collecting information; • 1, if the minimum required number of scenarios is available (the number is determined by experts for each enterprise separately).	It positively impacts mobility and diversification of activities and logistics routes.	Corresponds to reference values

Source: Author's compilation.

Table A.3. Conceptual approach to assessing the economic potential of an enterprise in conditions of war and post-war development (EP_{wt})

Indicator	*Reference values*	*The concept behind the indicator*	*The value attribute*
Income-based profitability over time (*IP*)	Assessment of dynamics during the classical period of three years	Profitability dynamics demonstrate the ability of an enterprise to improve its financial performance without evaluating methods and tools.	• 0, if the dynamics are stable with indicators ≥ 0; • -1, if the dynamics are negative; • 1, if the dynamics are positive.
Equipment utilisation rate (*EUR*)	• 0, if the equipment is used by 100%; • -1, if the equipment is underutilised and the profitability dynamics are negative; • 1, if the equipment is underutilised and the profitability dynamics are positive.	Demonstrates a reserve of production capacity to increase activity volumes.	Corresponds to reference values
Personnel sufficiency (*PS*)	• = 1 — company is well-resourced; • < 1 — staff shortage; • > 1 — existing staff reserve.	The indicator signals possible problems with staff.	• 0, if $PS = 1$; • -1, if $PS < 1$; • 1, if $PS > 1$.
Trend in marginal profit (Δ*MP*)	Assessment of dynamics during the classical period of three years	The dynamics of MP demonstrate the enterprise's ability to manage costs and shape pricing policy and value effectively.	• 0, if the dynamics are stable; • -1, if the dynamics are negative; • 1, if the dynamics are positive.
Dynamics of the share of export activity (Δ*E*)	Assessment of dynamics during the classical period of three years	The dynamics of export activity demonstrate the prospects for the enterprise's development at the global market's expense.	• 0, if the dynamics are stable; • -1, if the dynamics are negative; • 1, if the dynamics are positive.
Dynamics of the level of reinvestment as a percentage of income (Δ*RI*)	Assessment of dynamics during the classical period of three years	The dynamics of the share of reinvestments demonstrate the interest and capabilities of the company in product development.	• 0, if the dynamics are stable; • -1, if the dynamics are negative; • 1, if the dynamics are positive.
Dynamics of the primary market of the enterprise's activity (Δ*MA*)	• 0, if the market is established and stable; • -1, if the market is shrinking; • 1, if the market is growing and expanding.	Market dynamics allow you to assess the company's growth opportunities and the potential level of competition.	Corresponds to reference values
Trends in the proportion of expenditure on new, experimental, and enhanced products within total reinvestments (Δ*RN*)	• 0, if the proportion is stable, varying within a few percentage points; • -1, if the change in the share is negative, with decreases exceeding 10%; • 1, if the dynamics of the share are positive and exceed 5%.	The dynamics of the share of development in the total amount of reinvestments demonstrate the enterprise's ability to maintain competitiveness.	Corresponds to reference values
Level of destruction (*LD*)	• 0 — there are partial damages that do not affect the main activity, or can be quickly eliminated; • -1 — significant damage is present, or there is a complete lack of access to the facility — operations are conducted using partner capacities; • 1 — practically no destruction and damage.	The level of destruction affects the enterprise's development potential by distributing investments between development and restoration.	Corresponds to reference values
The level of diversification of the enterprise's activities (*Dev*)	• 0, if the company operates in several markets and does not actively diversify; • -1, if the company is narrowly specialised and "tied" to a specific market or consumer; • 1, if the company actively diversifies its activities.	The level of diversification affects development potential and security in unstable conditions of significant crises.	Corresponds to reference values
Compliance of the enterprise's activities with the expert list of current industries (*PI*)	• -1, if the company operates in industries that do not correspond to the list; • 1, if the industry belongs to a list.	The prospects of industries are an additional incentive and create additional advantages for increasing the potential of the enterprise.	Corresponds to reference values

Source: Author's compilation.