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Anti-Crisis Management of Enterprises in a War Economy

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ABSTRACT

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Ensuring national security is implemented through the formation and implementation of strategic management policy, including in the economic sphere. The process is aimed, first of all, at overcoming risks and threats, their prevention and prevention of relapses. Security management acquires particular relevance in modern crisis conditions caused by the Russian invasion of Ukraine, external pressure and instability in all spheres of national security. The purpose of the study is a theoretical analysis and the formation of practical recommendations for managing enterprises in the context of the impact of crisis factors of war on the development of economic processes. The article considers the types of crises that are potentially likely in the security sector, both within the enterprise and in the context of external influence. Among the methodologies for analyzing the level of "fragility", the Peace Foundation's approach to measuring the Fragile State Index is proposed. The study identifies potential risks for the strategy for developing the business environment caused by the destruction of war. The features of the agile project management system are studied, including iterativeness, incrementality, communication and collaboration, adaptation to change, and focus on results. Key approaches to agile project management are considered, in particular, PMIS (Project Management Information Systems) and EVM (Earned Value Management) for greater flexibility and transparency of management. The need for the transfer of modern approaches, generally accepted in the international community, to the upgrade of local management structures for enterprise development is determined. It is established that economic development in crisis conditions should be aimed at the transfer of new technologies, the integration of sustainable initiatives, and the actualization of social participation in initiatives.



KEYWORDS

crisis phenomena, management, sustainable development, information security, flexible management, innovation, anti-crisis management, adaptation.



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Антикризове управління підприємствами в умовах воєнної економіки

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Забезпечення національної безпеки реалізовується шляхом формування та реалізації стратегічної управлінської політики, в тому числі, у сфері економіки. Метою дослідження є теоретичний аналіз та формування практичних рекомендацій щодо управління підприємствами в умовах впливу кризових чинників війни на розвиток економічних процесів. У статті розглядаються типи кризи, потенційно ймовірні в сфері безпеки як всередині підприємства, так і у контексті зовнішнього впливу. Серед методологій аналітики рівня «крихкості» запропоновано підхід Фонду Миру, що вимірює Індекс крихких держав (Fragile State Index). У дослідженні визначено потенційні ризики для стратегії розвитку підприємницького середовища, зумовлені руйнаціями війни. Вивчено особливості системи гнучкого управління проектами, серед яких – ітеративність, інкрементальність, комунікація та співпраця, адаптація до змін, сфокусованість на результаті. Розглянуто ключові підходи до гнучкого управління проектами, зокрема, PMIS (Project Management Information Systems) та EVM (Earned Value Management) для більшої гнучкості й прозорості управління. Детерміновано потребу трансферу сучасних підходів, загальноприйнятих у міжнародній спільноті, до апгрейду локальних управлінських структур з розвитку підприємств. Встановлено, що економічний розвиток в кризових умовах має бути спрямований на трансфер новітніх технологій, інтеграцію сталих ініціатив, актуалізацію соціальної участі у ініціативах. Концепція гнучкого антикризового управління містить в основі ітеративний процес – гарантію гнучкості у плануванні та виконанні окремих завдань проекту. Такий підхід вбачається основою реалізації програми відновлення та розвитку підприємств в кризовий період в Україні. Забезпечення взаємодії стейкхолдерів та інвесторів, поетапність в реалізації функціоналу, безперервний зворотний зв'язок дозволить командам оперативно реагувати на динаміку вимог, мінімізуючи ризики невідповідності кінцевого результату очікуванням від реалізації проекту.

КЛЮЧОВІ СЛОВА

кризові явища, управління, сталий розвиток, інформаційна безпека, гнучке управління, інновації, антикризове управління, адаптація.

1. Introduction

The crisis conditions of the war, among other things, are reflected in economic processes as an indicator of the overall national security of the state. Since the beginning of the war, the share of the business sector that assesses the investment climate in Ukraine as unfavorable has increased from 5% to 53% in 6 months [1]. At the same time, the greatest risks for investments are due to the destruction of infrastructure, in particular, which is of critical importance in the energy sector. In this regard, the upgrade of the model of anti-crisis management of enterprises should provide for an increase in the stability of functioning, the identification of reserves to increase the level of investment attractiveness, and the attraction of international successful experience in the digitalization of management processes.

The study of the peculiarities of the functioning of anti-crisis management systems of enterprises in crisis conditions is seen as a necessary prerequisite for identifying key problems and determining factors regarding the effectiveness of project implementation in the area under study.

2. Literature Review

Theoretical, methodological and practical concepts of anti-crisis management of enterprises are positioned as the subject of modern scientific discourse, forming an interdisciplinary vector of research, which is actively developing in the international scientific field. Among the founders of the topic, who made a significant contribution to its development, it is necessary to note Santos and de Carvalho [2], Suvvari [3], Tetteh [4]. Their publications accumulate the experience of specialized professional organizations in project management – the International Project Management Association (IPMA) and the Project Management Institute (PMI).

Publications by Arauz et al. [5], Klijn and Koppenjan [6], Krysovatty et al. [7] are devoted to the analysis of anti-crisis approaches to the management of modern companies. The authors focus on the effectiveness of the agile management approach in the implementation of enterprise development projects through its features, such as adaptability, iterativeness, and flexibility.

Research results Lau et al. [8], Xu and Zhang [9] demonstrate the crucial importance of flexibility for the successful integration of innovations, maintaining the competitiveness of companies and maximizing the satisfaction of consumer needs. The authors focus on the functionality of modern flexible crisis management in the context of the effectiveness of interaction, cooperation and communication, ensuring the involvement and awareness of stakeholders, minimizing the risk of delays in the implementation of projects or misunderstandings.

Praveen [10] proposes to develop the potential of regional and local management structures as components of state management of economic security. According to the scientist, this approach makes it possible to take into account the specifics of regional progress and, in general, contributes to the development of public-private partnerships. At the same time, as the scientist notes, public administration plays a major role in ensuring national security, in the context of determining information and regulatory functions.

Yehorchenkova and Yehorchenkov [11] note that the crisis phenomena caused by the war cause, in aggregate, a significant transformation of informal institutional formations, and increased risks of instability change the established management mechanisms, which, in synergy, actualize the problems of providing support for economic development at different management levels. The scientist sees a way out of the current situation in the integration of innovative models of regional and national development, based on the concepts of public-private partnership, active interaction between the state, society and business.

Some scientists (Marnada et al. [12]) draw attention to additional risks to the functioning of business in crisis conditions. Among them are imperfect institutional support, weak investment activity, and the need to improve staffing of management processes. The authors are convinced that the low level of management efficiency is mainly due to systemic shortcomings of financial, economic and socio-political processes, in particular, uncontrolled corruption, depletion of the national economy, and distortions in the development of democracy.

The problems of risk management in the conditions of uncertainty and crisis dynamics, which determine the effectiveness of enterprises, as well as the conflict between the principles of agile

methodologies and the realities of the traditional distributed environment, remain relevant. Economic development in crisis conditions requires a deeper adaptation of flexible management methodologies to the dynamics of business priorities. This forms the need for additional research to develop an optimal system of flexible anti-crisis management of enterprises.

3. Problem Statement

The purpose of the study is to theoretically analyze and form practical recommendations for managing enterprises in a crisis, in the context of flexible strategies and mechanisms for maintaining the security environment.

4. Methods and Materials

The research process involved two main stages: the collection of informative data and its analytical processing. At the first stage, primary sources of information were used. The materials of the study were selected from sectoral scientific works, publications, and materials of scientific and practical conferences in the field of state management of national security for the period from 2020 to 2025. Also, statistics from official sources (NCSI, Fragile State Index and others) were used.

Data analysis was carried out using qualitative methods. With the help of scientific abstraction and system analysis, the essence of the phenomenon of anti-crisis management of enterprises was determined, and the main functionality, methods and tools of this process were allocated. System analysis made it possible to establish the essence of definitions and conceptual categories, at the same time, synthesis – to meaningfully combine the selected aspects in the direction from identical and essential to diversity, integrating general and individual aspects into a single concept. In order to formulate conclusions of analytical processing of empirical data, methods of generalization and systematization were applied. Limitations of the study include lack of access to complete and up-to-date official data and regional bias.

5. Results and Discussion

Ensuring the effective functioning of enterprises in the conditions of war crisis requires compliance with several principles: priority of security interests; adequacy of response, unity and balance; public-private partnership; reliability and transparency; complementarity to the requirements of the law. The problems synergize both theoretical and practical dimensions, in the context of improving the process of developing and implementing effective management strategies, developing an algorithm for timely identification, prevention and elimination of risks. Qualitative indicators of the success of anti-crisis management in wartime are the controllability of security processes, awareness, sustainability, and economic efficiency [13; 14].

Against the background of increased risks of unpredictable dynamics of the geopolitical situation, escalation of instability and military crisis in Ukraine, there is a need to engage effective international empirical assessment in order to predict potential risks to economic activity. The process involves the calculation of the Fragile State Index in the context of each state, which makes it possible to assess the effectiveness of national security and identify “bottlenecks” in this area. Fragile State Index studies in 2020-2023 show significantly higher indicators for countries bordering Ukraine, which is due to the escalation of the military conflict. In particular, for Ukraine, the index has an FSI range of 68.6–95.9, and for Moldova, 64.5–67.4 (Figure 1).

The dynamics shown in Figure 1 demonstrate significant differences in the managerial capacity of state bodies to ensure national security, which in turn determine the conditions for economic development. Thus, the countries of the European community have a higher level of management system in terms of guarantees of state sovereignty. At the same time, Ukraine and Moldova, countries with vulnerable transition economies, show higher Fragile State Index values. Noting that Ukraine has been devastated by the war, the index values have reached critical values (95.9 points in 2023).

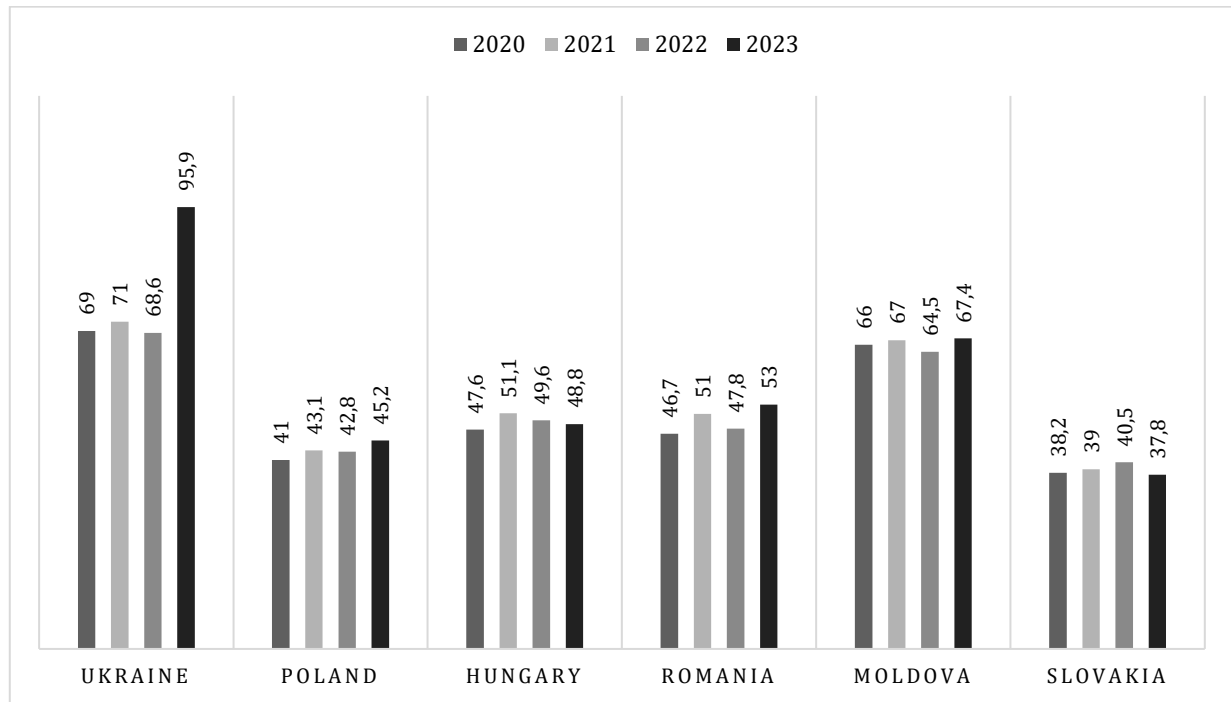


Figure 1. Dynamics of the Fragile State Index in 2020–2023

Source: Compiled by the author based on the data from [15–18].

Important prerequisites for the successful development of enterprises in wartime are the support of information and investment security. The definition of the National Cybersecurity Index (NCSI) allows you to determine the management potential in the context of leveling cyber threats. The NCSI rating (Figure 2) for 2023 demonstrates the level of digital information security in Ukraine among the countries of the European continent.

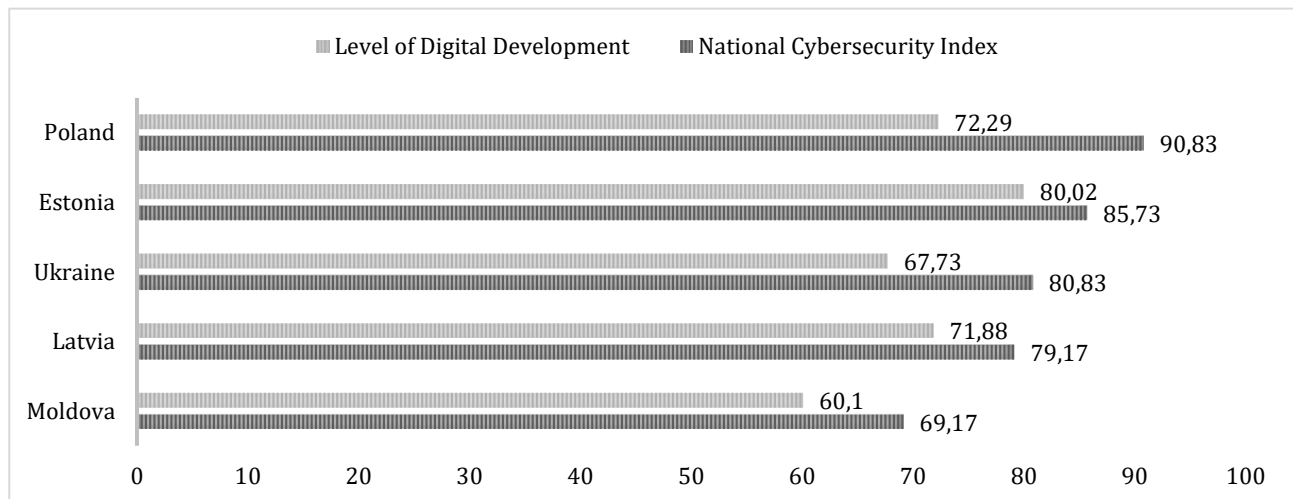


Figure 2. NCSI Ranking of Selected European Countries, 2023

Source: Compiled by the author based on the data from [19].

Modern integrated information security systems (CISS) are currently successfully used in the sector of the economy, as they allow you to manage access to confidential data and ensure the integrity of critical resources of the enterprise.

Another important component of the country's national security in the context of the crisis is investment security. According to the statistics of the external sector of economic activity of Ukraine, which was destabilized by the war (Figure 3), the investment sector has undergone significant dynamics.

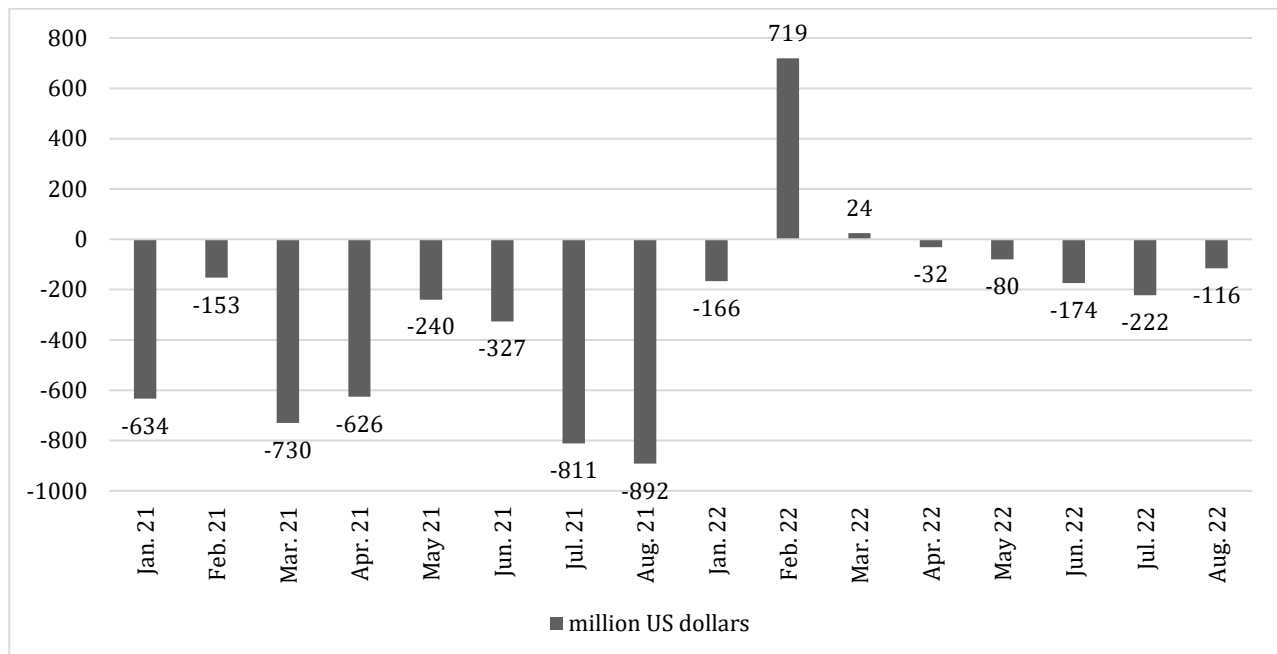


Figure 3. Dynamics of direct investments (balance), million USD USA

Source: Compiled by the author based on the data from [20].

The graph (Figure 3) shows a significant surge in February 2022, and the indicators of the subsequent months of 2022 are much better than those of 2021. At the same time, investments of private individuals are positioned as an important tool for maintaining economic security in times of crisis and uncertainty. Optimization of the investment climate requires active financial incentives, including project support programs for industrial projects, compensation of interest on investment loans, interest-free lending to projects to ensure the functioning of critical infrastructure, and stimulation of innovative technology transfer activities [21].

In the context of crisis management in wartime, flexible approaches are of particular importance. Agile project management is an adaptive collaborative approach, which is based on the concept of iterative development, involving the replacement of work on a single result with small managed projects – iterations (sprints). The Agile framework guarantees flexibility, adaptation, sustained and continuous feedback, positioning cooperation and interaction of stakeholders as the value basis for project implementation, which ensures consistency and quick decision-making [22].

It is advisable to define the basic principles of Agile in the context of the development of enterprises in crisis conditions:

- development of a fixed change response plan to ensure rapid adaptation to the dynamics of conditions or requirements;
- regular reflection and adjustment due to in-depth analysis at the end of each sprint;
- implementation of joint practices in teams;
- priority of interaction with the client to ensure compliance of the final product with the needs of consumers;
- continuous feedback loop [23].

Such fundamental principles of agile management of infrastructure projects will allow for the formation of an operational and flexible structure that ensures the effectiveness of the project and supports the dynamics of the team working on it

One of the basic principles of the flexible approach, which gives it prospects for use in the process of functioning of Ukrainian enterprises, is the possibility of starting work from the existing state and position, without creating special prerequisites, which guarantees ease of implementation, flexibility and adaptability. The key emphasis is on the continuity of implementation, which creates conditions for gradual and more flexible implementation of targeted corrections

The main concepts of the new management strategies are continuous analysis and continuous improvement, promoting the importance of a culture of respect in team interaction, delegating decision-making rights to all stakeholders, just-in-time production, and focusing on optimizing processes, quality, and speed of project implementation. Qualitative results can be achieved through regular assessment of

the effectiveness of the implementation of innovative approaches to crisis management and decision-making based on it.

6. Conclusions

As evidenced by the results of the analysis, military threats have the most destructive nature of influence on the processes of economic development. Ukraine, which is characterized by a critically high instability value of the Fragile State Index (95.9), is characterized by an increased security threat, which requires significant management resources to maintain the economic efficiency of business.

The concept of agile crisis management is based on an iterative process – a guarantee of flexibility in planning and executing individual project tasks. This approach is seen as the basis for the implementation of the program for the recovery and development of enterprises in the crisis period in Ukraine. Ensuring the interaction of stakeholders and investors, step-by-step implementation of functionality, and continuous feedback will allow teams to quickly respond to the dynamics of requirements, minimizing the risks of the final result not meeting expectations from the project.

Prospects for further research are seen in the combination of traditional elements and innovative Agile methods for differentiating large-scale business projects into short iterations with support for the adaptability of enterprises.

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