

Formation of a Competitive Paradigm of Ensuring Economic Security of Industrial Enterprises in the Conditions of Formation of Circular Economy

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Abstract

The article examines the formation of a competitive paradigm of economic security of industrial enterprises in the formation of a circular economy. The basic laws of industrial enterprises are formed, which determined the characteristics of competitive positions and threats. The basic competitive concepts and their application at maintenance of economic safety of the industrial enterprises in the conditions of formation of circular economy are described. Thus, the technological approach to the formation of a competitive paradigm is based on production technologies, opportunities for technological modernization and development of infrastructure and intellectual competencies. The institutional concept reveals the regulatory mechanisms for ensuring competitiveness through the protectionism of national industrial enterprises, standardization and regulation of market imbalances. The innovation-investment approach within the competitive paradigm is also manifested in the creation of competitive advantages due to the presence of active innovative developments and their commercialization, knowledge and competencies of staff, capitalization of intelligence and communications, constant updating of infrastructure and technologies. Collectively, innovation and investment effects on the level of economic security allow industrial enterprises to ensure resilience to increasing competition, the emergence of new market challenges in the formation of a circular economy. A strategic approach to the application of a competitive paradigm to ensure the economic security of industrial enterprises allows you to justify the prospects for development and design behavioral models to predict and assess potential threats. The concept of system management is based on the complexity of threat analysis, the integrity of the economic security system, system-forming functions and patterns of implementation of industrial development tasks in the formation of a circular economy. The application of the described concepts is formalized by the authors through the definition of the basic patterns, directions and characteristics of their impact on the elements of the security system of industrial enterprises in the formation of a circular economy.

Key words:

competitive paradigm; economic security; industrial enterprises; economic development; circular economy.

1. Introduction

The actualization of preventive and safe management of industrial enterprises is provoked by modern development challenges to strengthen the integration, innovation and creative influences and protectionism of certain potentially growing areas of management. The determinism of intellectual and digital technologies and competitive imbalances is especially growing, which is due to the availability of innovation, information and knowledge markets for enterprises.

Tough conditions of competition for resources, spatio-temporal and potential parameters of development, as well as market positions of industrial enterprises and intensify demands for the formalization and formation of a competitive paradigm of security priorities and preservation of values.

However, the effects of the competitive paradigm in conceptual variations on economic security and the efficiency of its system in industrial enterprises need to adapt to modern challenges and transformations that provoke both the emergence of new competitive advantages and new risks. It should be noted that the development of industrial enterprises and their competitiveness today depends on access to resources and opportunities for their use.

For many years, the paradigm of sustainable development has dictated the conditions for the development of economic entities under the condition of rational and careful use of nature, waste reduction and the negative impact of economic activity on the ecosystem. One of the latest strategies of sustainable development today is the strategy of circular economy, which is the idea of closed-loop production and involves reducing the use of resources, their complete waste-free use and processing in the production of resources and materials. This concept not only reduces the volume and careful use of natural resources without harming the environment, but also reduces the resource needs of enterprises, which in general has a positive effect on their competitiveness.

The purpose of scientific research is to formalize the conceptual provisions of the formation of a competitive paradigm in the context of the formation of the system of economic security of industrial enterprises in a circular economy.

2. Literature review

Many scientific works of domestic and foreign scientists are devoted to ensuring the economic security of industrial enterprises, including: Arefiev S., Popelo O. (2021) [1]; Balatskyi I., Onishchenko M., Dutchenko O., Dutchenko O. (2021) [2]; Ciekanowski Z., Wyrębek H. (2020) [3]; Cosmulese C. G., Grosu V., Hlaciuc E. (2019) [4]; Fedyshyn M. F., Marych M. G. (2019) [5]; Forrester S.V., Ustinova G.H., Popok L.E. (2021) [6]; Garafonova O., Berezovskyi D. (2021) [7]; Grigoraș-Ichim C.E., Savchuk D., Zhavoronok A. (2018) [8]; Khanin S., Dergaliuk M. (2021) [9]; Kosach I. A., Abramova A. S. (2019) [10]; Kovalenko N., Makaliuk I., Tur O. (2021) [11]; Li X. Xue Q. (2021) [12]; Mishchuk Ie., Ilchenko V., Polishchuk I., Rtyshchev S. (2021) [13]; Pakhota N. (2021) [14]; Pushak Y., Lagodiienko V., Basiurkina N., Nemchenko V., Lagodiienko N. (2021) [15]; Rebrova, S., Krush, P., Zinchenko, D., Astafieva, K. (2021) [16]; Roiter L.M. (2021) [17]; Shumilo O., Kalinichenko L., Yanchenko N., Blaga V. (2021) [18]; Vovk O., Saloid S., Kostyunik O. (2021) [19] and others.

In the article [17] the authors consider the current problem of ensuring the economic security of poultry enterprises. Scientists have proved that the growth of quantitative indicators of poultry production is not a criterion for economic security of enterprises in the industry. The authors investigated that the dynamics of absolute and relative financial indicators on average in the industry indicates a lack of resources for the implementation of the entire production process.

The authors of the article [2] claim and prove the need to apply optimization models in the process of economic security management in the foreign economic activity of the enterprise. Scientists have proposed an integrated structure of the mechanism of economic security management in foreign economic activity, based on the development of alternative management decisions, their detailed analysis and implementation of the most optimal of them.

The purpose of the article [15] is to form a model for assessing the level of economic security of an agro-industrial enterprise. The authors found that the effectiveness of anti-crisis measures significantly depends on information support. This is possible under the conditions of its effective formation with the use of the

developed model of assessment of the level of economic security of the agro-industrial enterprise.

The scientists' article [13] proves that the current mechanisms for ensuring strategic economic security are imperfect. The authors proposed an analytical basis for the implementation of the mechanism of economic security of strategic interests of machine-building enterprises. The authors argue that its practical application will be useful for management staff in the development and decision-making process to ensure the economic security of enterprises.

The authors [12] built a model of decision-making on investment support of information security of the replaced enterprise. The model takes into account the influence of the level of substitution of enterprises, the number of enterprises and the probability of hacker intrusion, and analyzes the optimal level of investment among enterprises that can be replaced by individual decision and joint decision based on game theory, optimization theory and synergy theory.

The research of scientists [6] is based on fundamental theories and concepts of modern and foreign authors. On the example of a specific organization, the authors study the threats to economic security of a participant in the construction industry. Scientists have developed recommendations for construction companies that provide economic security for efficient operation.

The study [3] is based on the identification and analysis of factors that determine the competitiveness and assessment of functioning in terms of their impact on economic security. The study was conducted using the methods of inference, critical analysis of the literature on this topic, and above all, using the method of expert evaluation.

The authors [16] analyzed and demonstrated the impact of digital technology protection on the implementation of modern engineering technologies. Scientists have substantiated their connection with ensuring the strategic economic security of the enterprise, proposed improved methods for assessing the current economic and information security of the interests of the enterprise.

In the article [18], the authors propose to introduce an assessment of the effectiveness of economic security management of commercial enterprises in supply chains by assessing the effectiveness of management. To assess the effectiveness of economic security management of commercial enterprises, the authors proposed a matrix method; based on which the consideration of the cross-influence of the levels of economic security of the enterprise and the adaptability of its system.

3. Results

Considering M. Porter as the founder of the theory of competition, most modern theorists base the competitive paradigm of enterprises on the values and competencies of market behavior and the results of the realization of economic potential in the environment of the economic system. Concentrating on increasing competitiveness and its implementation, enterprises, according to competition theory, must accumulate, maintain and effectively implement competitive positions, advantages and status. At the same time, the interests and values of the industrial enterprise's management are priority and dominant in its competitive strategy and mechanisms for the promotion of goods, marketing and pricing policies. Ensuring the protectionism of specific positions occurs in the system of economic security, areas of its influence and in the processes of interaction with other elements of the functioning of industrial enterprises in the formation of a circular economy. Thus, there is a scientific task of coherence and mutual adaptation of the competitive paradigm with the security values of industrial enterprises.

Modern laws of functioning of industrial enterprises in the conditions of formation of circular economy dictate conditions of implementation of provisions of a competitive paradigm on the basis of which safety values are formed. The main trends in the development of industrial enterprises in the formation of a competitive paradigm include:

- fragmentation of markets, which is provoked by the dynamics of the emergence of new products, technologies of its production and sale;
- digitalization of processes at all stages - from the development of a new product and its commercialization, to marketing and communication support for logistics and sales;
- transformation of values and functions of both producers and all other market participants;
- globalization, which provokes the acceleration of economic transformations, the spread of new products and technologies, scaling and integration in markets;
- expansion of the competitive space, which is provoked by the comprehensiveness and availability of information not only about the product, but also about manufacturers, production technologies, communications and sales channels, which together form consumer values and accumulate demand;
- reducing the time to spread innovations provokes an increase in demand for new technologies and products, thereby shortening the product life cycle and intensifying the search for or creation of new competitive advantages.
- resilience to threats of competitive challenges is formed not only by its competitiveness in the external environment, but also by the accumulated development

potential, competencies and internal motivation for effective transformation;

- formation of new production models with a focus on reducing the use of resources for production, the introduction of their waste-free and reuse, as well as a closed production cycle, taking into account the environmental friendliness of production processes.

Thus, the competitive paradigm of industrial enterprise development is a methodological basis for the formation of security values and the system of economic security of industrial enterprises in the formation of a circular economy. Consider in more detail the scientific approaches to the formalization of the competitive paradigm.

One of the first approaches to the formation of a competitive paradigm is the technological concept, according to which the main sources of competitive advantage in international markets are technological capabilities, infrastructure and technological and intellectual capital (staff). The presence of one or another factor in the markets determines the ability of economic systems to create, disseminate, transform and effectively apply technologies that determine the allocation of resources, create competitive advantages or, in their absence, new threats to economic systems.

Under conditions of formation of a competitive paradigm in modern conditions of maintenance of economic safety in the conditions of formation of circular economy for achievement of competitiveness of the industrial enterprise it is necessary:

- to design the dynamics of production in accordance with the rate of economic growth of the national economy;
- to provide in production secondary processing of production and waste-free use of production resources;
- to determine the patterns of innovative development and the emergence of new technologies;
- take into account the effectiveness of the implementation of technological advantages in the markets;
- invest capital in the creation of new technologies that will protect the existing competitive advantages and market space of industrial enterprises.

Modern globalization challenges actualize the institutional approach to the formation of security values in the formation of a circular economy, which must be provided in a competitive environment. In summary, we must state that the legislative and regulatory support of the competitive paradigm of economic security of industrial enterprises in the formation of a circular economy is the basis for protectionism and preventive protection systems.

Modern interpretations of the institutional approach to the formation of a competitive paradigm of economic security at the national level should be based on anticipating and preventing threats, taking preventive measures, preventing dangerous challenges, and ensuring

the stability and stability of national institutions and the economic system. The institutional direction of development of the productive sector of the economy should be aimed at the environmental friendliness of industrial production, closed use and waste-free production processes, which contributes to the formation of legislative and regulatory framework for the formation of a circular economy.

Crisis phenomena require the search for new approaches and concepts to ensure the competitiveness of enterprises, the most relevant of which is innovation-oriented. Activation of intellectual capital in the formation of competitiveness of industrial enterprises and ensuring their security values should be supported by resource and investment support. The methodology of innovation and investment concept in the competitive paradigm of economic security is based on the principles, functions and patterns, methods and models of active transformation, the formation of aggressive competitive strategies and mechanisms.

The innovation-investment approach within the competitive paradigm is also manifested in the creation of competitive advantages due to the presence of active innovative developments and their commercialization, knowledge and competencies of staff, capitalization of intelligence and communications, constant updating of infrastructure and technologies. Therefore, in the process of ensuring economic security of industrial enterprises under conditions of innovative development it is necessary to create stabilization and insurance reserves based on accumulated intellectual potential, accumulated resource efficiency technologies, high-tech and creative tools for process control, and competitive advantages in innovation and investment markets. Without an innovative direction of industrial development, it is impossible to achieve complete modernization in the direction of ensuring a closed production cycle, reducing the use of resources and their reuse.

In the conditions of dynamic market transformations there are integrated approaches to formalization of a competitive paradigm of development of economic systems. Specific concepts include the partner-competitive paradigm, which focused on the infrastructure sector of the economy and is based on customer-oriented principles of economic management. This approach created the methodological principles of tariff policy, protectionism of national carriers by national institutions, ensuring insurance of economic results, expanding the system of services to meet the growing needs of the population.

Also, noteworthy is the innovation and logistics paradigm of competitive behavior, based on the principles of product quality management. In a competitive environment, quality and efficient logistics become tools to ensure the stability of market positions of enterprises, resource conservation and minimization of economic risks

in reconciling the values of enterprises, consumers, suppliers and other market regulators in a circular economy.

Focusing the system of economic security on long-term benchmarks of maintaining competitiveness and competitive advantages, the studied paradigm is interpreted in the strategic concept. The strategic approach to the application of a competitive paradigm of economic security of industrial enterprises in the formation of a circular economy is used in many studies, as it allows to justify the prospects for development and design behavioral models to predict and assess potential threats. The system of competitive strategies in the processes of realization of safety values embodies the principles of industrial enterprise development, normative-legal bases and determinants of resistance to changes in the environment of its functioning.

A systematic approach to managing the economic security of an industrial enterprise is key in modern research on structuring and ensuring the effectiveness of the components of the security system in the formation of a circular economy. Therefore, the concept of system management in the competitive paradigm of economic security is based on the complexity of threat analysis, the integrity of the security system, system-forming functions and patterns of implementation of tasks.

Considering the most common concepts of modern scientific principles of competitive paradigm of economic security of industrial enterprises in the formation of a circular economy, we must state that their application should be combined with the specifics of markets and technologies, characteristics of accumulated potential, and focus on the effectiveness of economic development strategies, formation of a circular economy. Accordingly, when formalizing the methodological tools for the formation of the economic security system and its implementation, integrated concepts are used and their adaptation to the goals of the industrial enterprise is carried out taking into account the most efficient and careful use of limited resources.

The above conditions for the introduction of a competitive paradigm in the formation of security values and their implementation in the activities of industrial enterprises in the formation of a circular economy, given the peculiarities of the implementation of individual concepts, affect both the integrated economic security system and individual components. For example, increasing infrastructure, communication technologies, increasing innovation potential and intellectual capital contributes to the creation of new markets, increasing competitive advantages, forms a stable competitive position. At the same time, innovation activity needs investment support, creates new risks and financial and economic threats. Avoidance of these disparities becomes a key task of system support of the project level of

economic security of industrial enterprises in the conditions of formation of circular economy. Therefore, at the stages of formalization of methodological tools and design of strategies and mechanisms for economic security

of the enterprise within the chosen concept of competitive paradigm it is necessary to determine the basic patterns and characteristics of their effects on the security system in a circular economy (Fig. 1).

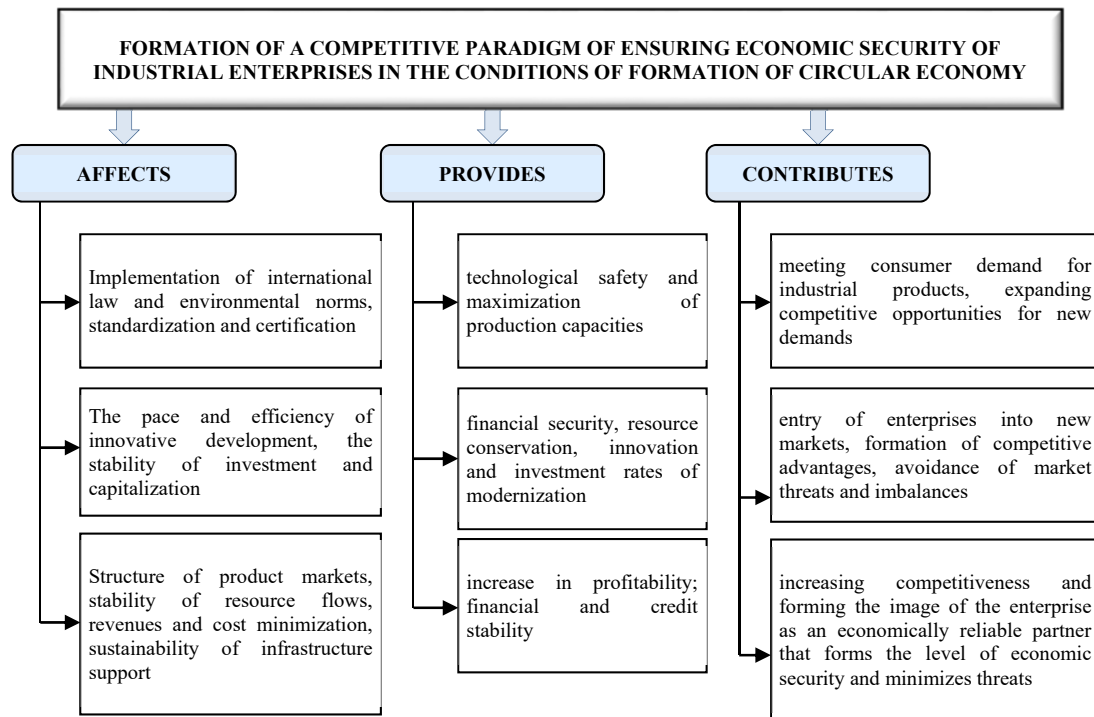


Fig. 1 Theoretical and conceptual patterns of implementation of the scientific principles of the competitive paradigm in the processes of economic security of industrial enterprises in the formation of a circular economy.

Source: built by the authors

Maintaining a high level of competitiveness and security in industrial enterprises in the formation of a circular economy means that all resources are used so productively that it is more profitable than its market competitors. Thus, they provide not only advantages in the cost of production, but also in the formation of reserves for innovative development, stabilization of product prices or coverage of other threats. Summarizing the theory of competitiveness management and the practice of ensuring the economic security of industrial enterprises in the formation of a circular economy, we propose to generalize the development of competitive strategies taking into account security aspects in accordance with the three design and target characteristics of development.

Improving the safety and competitiveness of industrial products affects not only the efficiency of management, but also the image and profitability of the enterprise as a whole. This means that the company occupies a stable place in the markets of both technology and resources, and already manufactured products. In other

words, for sustainable economic security through the formation of a competitive paradigm in the formation of a circular economy requires:

- to form a system of functional competitive strategies that correspond to the components of the economic security system;
- to develop an innovation and investment policy that would focus on creating new competitive advantages;
- design a financial and pricing policy taking into account trends in the markets of resources, capital and products, which will ensure creditworthiness and investment activity through sustainable income;
- to introduce careful, waste-free production, taking into account its environmental friendliness;
- implement information-analytical and digital technologies in the processes of risk analysis and design of competitive behavior to minimize them.

The areas of increasing competitiveness to ensure the safety of industrial enterprises in the formation of a circular economy presented in Fig. 2.

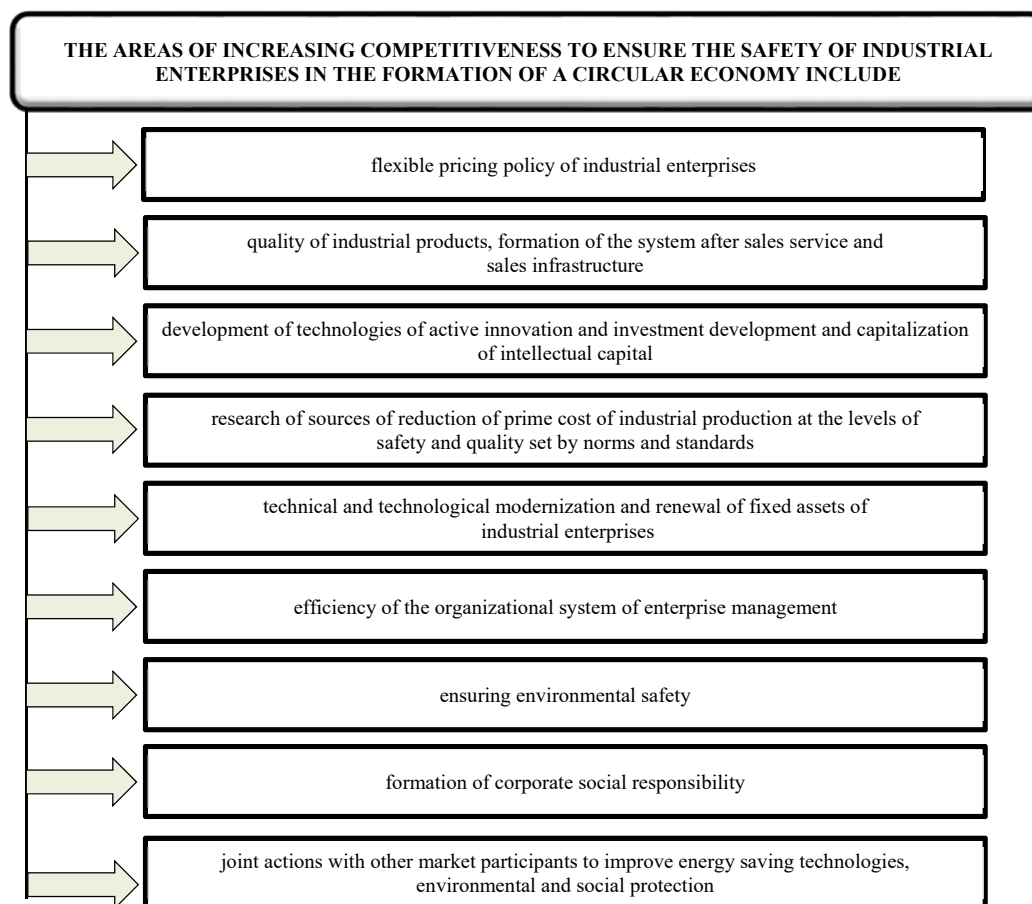


Fig. 2 The areas of increasing competitiveness to ensure the safety of industrial enterprises in the formation of a circular economy.

The implementation of these areas can provide a comprehensive implementation of the system of economic security of an industrial enterprise with the intensification of its competitiveness and market advantages in the formation of a circular economy.

4. Conclusions

The study of the scientific basis for the formation of a competitive paradigm of economic security of industrial enterprises in the formation of a circular economy has shown the relevance of technological, innovative, institutional, strategic and systemic concepts. The described patterns of application of the competitive paradigm in industrial enterprises were formalized through the competitive characteristics of behavior in the market space, as well as internal incentives to increase security values in the formation of a circular economy.

It is substantiated that the direction of development of industrial enterprises is in the plane of introduction of models of circular economy, which will improve the situation with the processing of industrial waste, help to solve the problem of resource supply and environmental friendliness of production.

The basic competitive concepts are singled out and their application at maintenance of economic safety of the industrial enterprises in the conditions of formation of circular economy to which technological, institutional, innovation-investment, strategic and system management concern is substantiated.

The scientific novelty of this study is the formalization of the laws of implementation of the scientific principles of the competitive paradigm in the economic security of industrial enterprises in the formation of a circular economy through the definition of basic patterns, directions and characteristics of their impact on the security system of industrial enterprises in the circular economy.

Further research should be aimed at formalizing the methodological principles of regulating security guidelines through the implementation of scientific provisions of the competitive paradigm and tools for strategic management of processes to protect the economic interests of industrial enterprises in a circular economy.

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