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Innovative and Informative Provision for the Economic Security of Enterprises under COVID-19 challenges

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ABSTRACT

The COVID-19 pandemic, in the current conditions of globalization challenges, turned out to be one of the general reasons for a significant decrease in the level of economic security of economic systems, including at the level of companies. This updates the issue of guaranteeing the economic security of companies. The study aims to develop the conceptual and methodological foundations of the innovative and investment provision of the economic security of companies in the conditions of the challenges of COVID-19. The methodological principles of innovative and informative provision of the economic security of companies are based on a systemic approach, which allows considering the company as an open system in which economic security is one of the determining subsystems. It has been shown that the economic security of the company must ensure the achievement of the socio-economic goals set for the company in the conditions of the challenges of the COVID-19 pandemic, protecting the company from adverse factors and the negative impact of internal and external changes. It is emphasized that innovation is a determining factor of the economic development of the company, and therefore of economic security. The staggering of systematic steps to make management decisions is suggested to ensure the economic security of the company in the conditions of the challenges of COVID-19.

KEY WORDS: Economic Security, enterprises, innovations, investments, informatization, digitalization, globalization, innovative activity, COVID-19 pandemic.

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Provisión innovadora e informativa para la seguridad económica de las empresas en condiciones de los desafíos de COVID-19

RESUMEN

La pandemia de COVID-19, en las condiciones actuales de los desafíos de la globalización, resultó ser una de las razones generales de una disminución significativa en el nivel de seguridad económica de los sistemas económicos, incluso a nivel de las empresas. Esto actualiza la cuestión de garantizar la seguridad económica de las empresas. El estudio tiene como objetivo desarrollar los fundamentos conceptuales y metodológicos de la provisión innovadora y de inversión de la seguridad económica de las empresas en las condiciones de los desafíos de la COVID-19. Los principios metodológicos de provisión innovadora e informacional de la seguridad económica de las empresas se basan en un enfoque sistémico, lo que permite considerar a la empresa como un sistema abierto en el que la seguridad económica es uno de los subsistemas determinantes. Se ha demostrado que la seguridad económica de la empresa debe garantizar el logro de los objetivos socioeconómicos establecidos para la empresa en las condiciones de los desafíos de la pandemia de COVID-19, protegiendo a la empresa de los factores adversos y del impacto negativo de los cambios internos y externos. Se resalta que la innovación es un factor determinante del desarrollo económico de la empresa, y por ende de la seguridad económica. Se sugiere el escalonamiento de pasos sistemáticos para tomar decisiones de gestión para garantizar la seguridad económica de la empresa en las condiciones de los desafíos de COVID-19.

PALABRAS CLAVE: Seguridad económica, empresas, innovaciones, inversiones, informatización, digitalización, globalización, actividad innovadora, COVID-19.

Introduction

It should be noted that modern market relations determine the management of enterprises as open systems in a complex, rapidly changing, bifurcated environment, characterized by instability, constant rapid dynamics of changes. One example of such changes is the COVID-19 pandemic. It was the pandemic that affected the development of all microeconomic systems, which led to the closure of enterprises, the deterioration of their performance, or, on the contrary, to significant positive economic development. Such changes in the external environment require the management of enterprises to respond quickly and find ways to adapt enterprises to new conditions of development. Such uncertainty and instability of the external environment of enterprise development increases the urgency of ensuring the economic security of enterprises. Ensuring the economic security of enterprises,

which represents processes that make it possible to obtain positive socio-economic effects for the development of the enterprise as a result of forecasting possible threats and risks of development and the development and implementation of timely measures to level their consequences. In turn, to ensure the economic security of enterprises, it is important to provide it with innovative information.

The purpose of the research is to substantiate the theoretical and methodological foundations of innovation and investment provision of the enterprises' economic security in the conditions of the challenges of COVID-19. The defined goal determined the solution of the following research tasks:

- substantiation of the relevance and timeliness of research in the area of innovation and investment provision of enterprises' economic security;
- highlighting the methodological foundations of the research, which involves the application of a systemic approach and general scientific and specific principles of ensuring the economic security of the enterprise;
- proving the importance of innovations and information resources for making management decisions regarding economic security in the context of the spatial challenges of COVID-19;
- the phasing of systematic steps in making managerial decisions based on constant monitoring and analytical processing of information in accordance with general economic and specific principles of the enterprises' economic security is highlighted.

1. Literature Review

Many scientific publications are devoted to issues of innovation and information provision of enterprises' economic security. Digitization processes, which have a significant impact on ensuring the enterprises' economic security, are becoming especially relevant in the context of the Covid-19 pandemic.

The study (Collins J.D. et al., 2017) proved that the attraction of investments in innovative projects helps to increase the level of competitiveness of Indian enterprises and contributes to the implementation of their development strategy. Worthy of attention is the study (Kiselitsa E.P. et al., 2021), which examines the problems and prospects of implementing innovative projects at agricultural enterprises. The authors developed a mechanism for activating the innovative activity of the enterprise, which is based on the

processes of stimulation and maximum interest of the participants of the innovative project. Scientists (Girma S. et al., 2009) prove the necessity of attracting foreign investments in innovative activities of enterprises. According to the scientists, this will contribute to the activation of innovative activities of enterprises, taking into account modern digital transformation processes. Within the scope of the article (Del Pozo D. et al., 2021) it is considered how the stimulation of innovations at enterprises helps to increase the level of employment. Scientists are convinced that it is innovative activity that contributes to the attraction of investments and gives a positive result.

The study (Ozerova M.G. et al., 2021) is based on the analysis of the impact of financial risks on the level of economic security of agricultural enterprises. According to the results of the analysis, the authors claim that the prevention and timely detection of financial risks will contribute to maintaining the positions of sustainable development of agricultural enterprises. The goal of the scientists' article (Vasylyshyn S. et al., 2021) is to develop a model for analytical management of economic security in conditions of uncertainty and conditions of significant risks and threats to agricultural enterprises. The research uses general economic, statistical, integral and econometric scientific methods. According to scientists, this will help in the implementation of strategic goals, maintaining competitive positions and sustainable development of enterprises. The purpose of the scientists' article (Sotskova S.I. et al., 2022) is to assess the level of economic security of enterprises in order to reduce risks and threats in the conditions of digitalization. The authors are convinced that the digitalization of the economy leads to a change in the content and priorities of the constituent elements of economic security.

The authors of the article (Balatskyi I. et al., 2021) emphasize that it is necessary to use adaptive models in the process of managing the economic security of the enterprise, which should be based on alternative solutions. The articles (Tulchynska S. et al., 2021; Arefieva O. et al., 2021; Vovk O. et al., 2021) highlight the issue of innovation and investment strategies for activating the potential of modernization and increasing the competitiveness of enterprises, the system of economic security in the conditions of the transformation of power is studied, economic and mathematical modeling of the integration effect of modernization on increasing the competitiveness of the enterprise in order to ensure its economic security is carried out. According to the materials of article (Shtangret A. et al.,

2021), methodical aspects of the use of anticipatory management are developed, which, in their opinion, is extremely important in the processes of ensuring the enterprises' economic security. The purpose of the article (Pushak Y. et al., 2021) is to develop the author's model for assessing the level of economic security of an enterprise, which is based on quantitative and qualitative indicators that make it possible to determine the level of economic security.

The result of the research of scientists (Mishchuk I. et al., 2021) is a proposal for the classification of management decisions based on the impact on the change of the economic security of the enterprise. The authors believe that it is necessary to make management decisions purposefully and this will contribute to ensuring the economic security of the enterprise. Within the scope of research (Ivanova N. et al., 2022; Pohrebniak A. et al., 2021; Arefieva O., 2021), the peculiarities of the marketing strategy of small business adaptation to quarantine restrictions in the field of trade entrepreneurship, the formation of a competitive paradigm for ensuring the economic security of industrial enterprises in the conditions of the formation of a circular economy, as well as the management of the attraction of investment resources of enterprises to ensure their economic security in circular economy.

The research of the authors (Onyshchenko S. et al., 2022) is of practical importance, within the framework of which a structural model is proposed, which allows to quickly identify the factors and prerequisites for the emergence of threats. According to scientists, it is the timely detection of threats to the economic security of the enterprise that will make it possible to develop measures that will contribute to the prevention, prevention and minimization of the causes of their occurrence. According to the article (Roiter L.M., 2021), the authors study the peculiarities of ensuring the economic security of enterprises. According to scientists, it is necessary to develop specific management solutions. In their opinion, the above can be realized by transitioning from an unsatisfactory balance sheet structure to a satisfactory one. The authors are convinced that the methodological basis for assessing the economic security of a business entity, which is used at the moment, is imperfect and requires a comprehensive approach to its adaptation to modern realities. Research by scientists (Liubokhynets L. et al., 2021) proves that a flexible management system is an important aspect in strengthening the economic security of enterprises. Scientists have suggested using a neural network, which, in their opinion, will contribute to prompt management response to aquatic risks and threats.

However, despite the existing publications, the problems of innovative and informational provision of economic security are becoming more and more relevant and require study and analysis taking into account the challenges of COVID-19.

2. Methodology

For innovative and informational provision of the enterprises' economic security in the conditions of COVID-19, it is important to observe methodological principles based on a systematic approach. The system approach makes it possible to consider the enterprise as an open system in which economic security is one of the determining subsystems. According to the system approach, the action of a set of elements of the system and its subsystems provides a synergistic effect that is greater than the sum of the effects obtained as a result of the action of individual elements and subsystems.

The system approach makes it possible to obtain the efficiency of the system development due to the interconnectedness and coherence of elements and subsystems. That is, the application of a systemic approach makes it possible to cover all actions, operations, processes, cycles that affect the economic system and to get a positive effect from the implementation of measures to ensure the economic security of the enterprise in the conditions of changes of a different nature, including the effects of COVID-19.

3. Results

Ensuring the enterprises' economic security requires the management of the enterprise and managers to develop and implement measures to increase the efficiency of resource use, leveling the consequences of threats and risks, diversification directions, expanding or reducing the volume of production activities, establishing other partnership relations, entering new markets, ensuring competitiveness, identifying latent potential opportunities for the socio-economic development of the enterprise in the conditions of the challenges of the COVID-19 pandemic, etc. Therefore, the economic security system of the enterprise must ensure the achievement of the set socio-economic goals for the enterprise in the conditions of the challenges of the COVID-19 pandemic by protecting the enterprise from the negative impact of internal and external adverse factors.

Management of innovative and informational provision of enterprises' economic security should be based on general economic and specific principles (Fig. 1). General

economic principles should include:

- complexity, since it is not possible to ensure the enterprises' economic security without research and implementation of measures taking into account all aspects of the development of the object as an element of the economic space acting as an open economic system, taking into account internal and external connections and interactions;

- institutionality, all actions of enterprise managers, decision-making, collection of necessary information must be legal, otherwise violations of regulatory and legal aspects of activity, use of tools of industrial espionage, unfair competition may lead to the emergence of new threats to the closure of the enterprise as a result of illegal actions;

- reasonableness, decision-making regarding the implementation of innovative and informational measures to ensure the enterprises' economic security must be scientifically and methodically justified and taken into account the limitations of available resources and the riskiness of making imprudent decisions;

- timeliness, decision-making to ensure the enterprises' economic security must be not only justified but also timely, to ensure that it is necessary to carry out constant monitoring and modeling of possible scenarios of development and changes in the behavior of the research object, including under the influence of the challenges of the COVID-19 pandemic. Untimely decision-making, delay in the implementation of measures can be fatal in relation to the company's activities in the unstable, rapidly changing globalization conditions of the company's development;

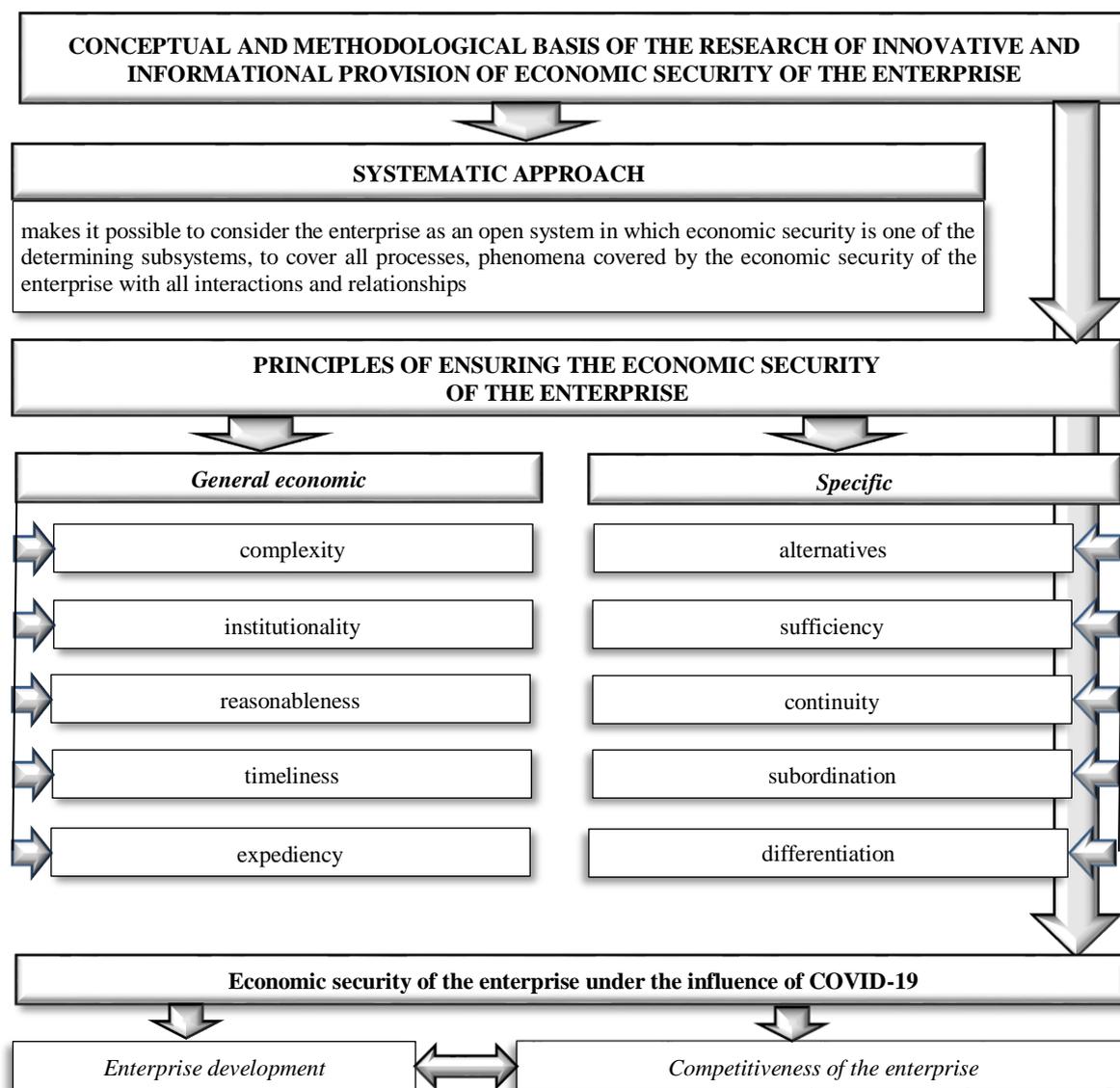
- expediency, this principle assumes that measures to eliminate the consequences of manifestations of global challenges and to counteract possible threats should be economically feasible, since their implementation should be less expensive than the action of the threats themselves.

The general economic principles of complexity, institutionality, reasonableness, timeliness and expediency are supplemented by specific principles that are specific to ensuring the economic security of enterprises in the context of the challenges of the COVID-19 pandemic. Such specific principles of the research object should include:

- alternatives, which involves the development of several options for the implementation of possible measures to ensure the enterprises' economic security, which makes it possible to model the development of the enterprise and possible changes and

choose the most optimal alternative for further socio-economic development;

Figure 1. Conceptual and methodological basis for ensuring the enterprises' economic security under the influence of COVID-19



Source: constructed by the authors

- sufficiency, due to the fact that the introduction of any new innovative and informational measures to ensure economic security leads to unplanned changes that may distance the enterprise from the planned goal of socio-economic development. Therefore, decision-making in accordance with the separation of general economic principles must also comply with the principle of sufficiency, which determines the limitation in the means of economic protection of the enterprise and the implementation of minimal changes sufficient to ensure the development and competitiveness of the enterprise in the conditions of the

challenges of the COVID-19 pandemic;

- continuity, collection of information, its analytical development and modeling of possible changes and development trajectory of the enterprise under the influence of internal and external influencing factors requires the continuity of the functioning of the enterprises' economic security system;

- subordination, the system of economic security and its management should be a part with close interaction with other elements of the system and general management of the functioning of the enterprise;

- differentiation, which involves the selection of appropriate measures to ensure the enterprises' economic security in accordance with the nature and type of threat, as well as the degree of severity of the possible consequences of their manifestation for the enterprise in its current activity and strategic development.

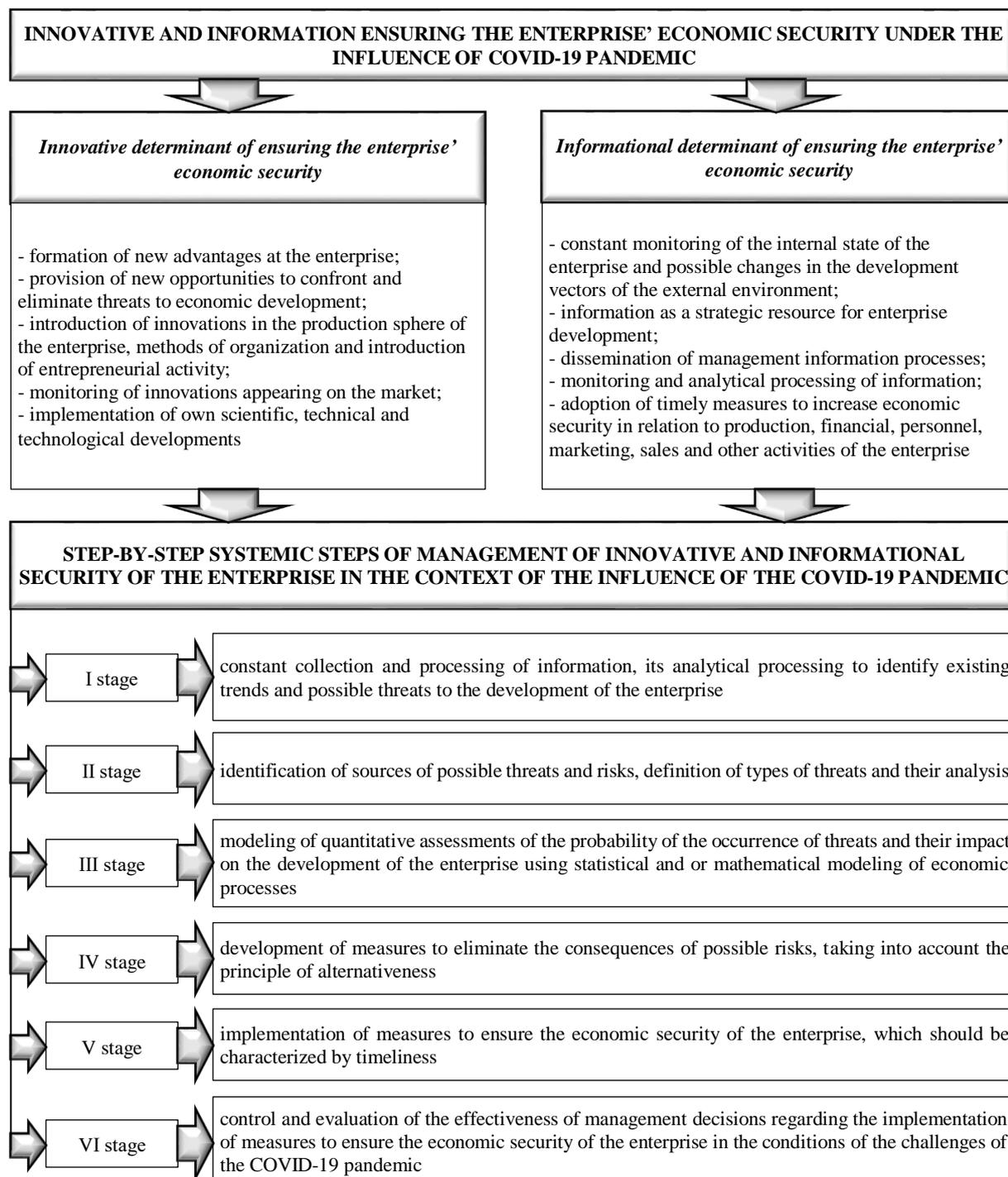
Therefore, the observance of general economic and specific principles of innovative and informational provision of economic security provides an opportunity to obtain a synergistic effect for the development of the enterprise in the conditions of the challenges of the COVID-19 pandemic.

Modern globalization challenges and competitive conditions prove that innovations and information are the determining factor in ensuring the enterprises' economic security (Fig. 2). Innovative development of the enterprise is an effective tool for ensuring an effective defensive response of the enterprise to emerging threats to its socio-economic development. Without innovative implementations, it is impossible to resist threats of losing competitive positions in the market, withstand constant pressure provoked by competitors, reduction of the life cycle of products and technologies, threats caused by the COVID-19 pandemic. Innovations contribute to the formation of new advantages at the enterprise, provide new opportunities to confront and eliminate threats to economic development. It is innovations that act as a determining factor of economic development and, therefore, economic security for the enterprise.

The innovative component of the functioning of the enterprise system closely interacts with other components, thus increasing the economic security of the enterprise. In order to implement innovative provision of economic security, the enterprise needs to either monitor the innovations that appear on the market, or buy them in time to obtain relevant competitive

advantages.

Figure 2. Innovative and informational determinants of ensuring the enterprise' economic security in the conditions of COVID-19 pandemic



Source: suggested by the authors

And also carry out own scientific, technical and technological developments in order to obtain the maximum effect from innovative implementations, which makes it possible to

cover the costs of developing innovations at the expense of obtaining anticipatory advantages and competitive positions on the market. Innovations are important not only in the production sphere of the enterprise, but also in the methods and ways of organizing and introducing entrepreneurial activities.

Thus, to ensure the economic security of the enterprise, it is important to observe the stability and continuity of innovative processes at the enterprise.

Economic security of the enterprise, like security in general, has a somewhat conditional dynamic character. At any moment in time, economic security can have a different level and change rapidly, which is related to the characteristics of the openness of the enterprise's economic system and the impact of changes in the internal and external environment. To ensure economic security, it is necessary to constantly monitor the internal state of the enterprise and possible changes in the development vectors of the external environment. This is possible thanks to the constant collection and processing of information resources.

Modern conditions of social development prove that information is a strategic resource that determines the level of socio-economic development of economic systems at different levels. The development of information and communication technologies, the spread of information management processes, and the increasing level of application of software tools ensure that enterprises take timely measures to increase the economic security of enterprises in order to ensure the sustainable social and economic development of enterprises in the face of the challenges of the COVID-19 pandemic.

To ensure the enterprise' economic security in the conditions of the spatial challenges of COVID-19 pandemic, it is necessary to make timely and effective management decisions, which cannot be developed without constant collection, accumulation and processing of information. On the basis of monitoring and analytical processing of information, decisions are made regarding the management of production, financial, personnel, marketing, sales and other activities of the enterprise.

Information provision of the economic security of the enterprise in the conditions of the challenges of the COVID-19 pandemic should be based on general economic and specific principles of ensuring economic security and provide for a clear phasing of systemic steps, which include:

- firstly, constant collection and processing of information, its analytical processing to identify existing trends and possible threats to the socio-economic development of the enterprise;
- secondly, identification of sources of possible threats and risks, definition of threats and their analysis;
- thirdly, modeling of quantitative estimates of the probability of threats and their impact on the socio-economic development of the enterprise using statistical and/or mathematical modeling of economic processes;
- fourthly, the development of measures to eliminate the consequences of possible risks, taking into account the principle of alternative, which involves the development of several options for leveling threats to the development of the enterprise;
- fifthly, the implementation of measures to ensure the economic security of the enterprise, which must be characterized by timeliness, since a delay in making a decision can lead to irreparable negative consequences;
- sixthly, control and evaluation of the effectiveness of management decisions regarding the implementation of measures to ensure the economic security of the enterprise in the conditions of the challenges of the COVID-19 pandemic.

However, it is also important to note that information has both an unconditional positive effect on ensuring economic security and can carry threats to the development of the enterprise as a result of its insufficient security at the enterprise. This leads to the development and implementation of measures to protect the company's information and restrict access to it.

4. Discussion

We support the opinion of scientists (Zalutskaya K. et al., 2021) that innovative projects contribute to effective innovative activities of enterprises, and also have a positive effect on the realization of the enterprise's potential, contribute to the achievement of competitive advantages and successful strategic development.

Interesting for practical use is the study of the authors (Ihnatenko M. et al., 2020), who suggested using the rhombus of innovative activity, which is based on four components, namely, receptiveness to new things, communication and organization of the innovation process, provision of resources, as well as a measure of competence. The authors developed a

model of management of innovative processes at the enterprise taking into account the impact of global risks and threats.

Sharing the opinion of the authors (Tulchynska S. et al., 2021), we believe that human capital plays an important role in the development of innovations, because it is the level of personnel qualifications, their tendency to generate innovative ideas and approaches. which is an important factor that directly affects the development of innovative activities of enterprises.

We consider the study (Bielińska-Dusza E. et al., 2021) interesting, in which the authors proved the relevance and rationality of combining industries into homogeneous clusters based on the share of innovative enterprises. The authors are convinced that the activation of innovative processes will contribute to achieving high efficiency and maintaining competitive advantages in the market.

We support the scientific work of scientists (Kopytko M. et al., 2021), which is based on the analysis of factors, risks, competitive advantages, the search for resources and sources for the implementation of innovative investment projects for the development of enterprises and organizations of rural green tourism. The authors examined the structure, main components, implementation factors, analyzed competitive advantages and identified limitations.

However, in our opinion, it is necessary to pay more attention to the role of digital technologies and innovative information provision in the processes of forming the enterprises' economic security in the conditions of the COVID-19 pandemic.

Conclusion

Therefore, the innovative and informational provision of enterprises' economic security by timely adoption of management decisions should ensure such a level of enterprises' economic security that the enterprise is in a state of stability of socio-economic development in financial, production, social, environmental and other spheres of economic activity. It is substantiated that the determining factors for ensuring the enterprises' economic security are innovative and informational components that make it possible to ensure socio-economic development, competitiveness of the enterprise in the face of the challenges of COVID-19 and to make timely management decisions based on its analytical processing and modeling of possible threats and behavior of the enterprise on market.

The scientific novelty of the research is the substantiation of the determinative value of innovative and informational provision of the enterprises' economic security, which is based on a systemic approach, general scientific and specific principles of the enterprises' economic security and provides for the gradual system steps of making managerial decisions, taking into account the variability of changes in the external and internal environment.

The issue of information protection and increasing the efficiency of modeling enterprise development processes under the influence of COVID-19 to ensure the enterprises' economic security requires further scientific research.

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