

## THE ROLE OF INTELLECTUAL CAPITAL IN THE MANAGEMENT OF THE ENTERPRISES' INNOVATIVE DEVELOPMENT IN THE CONDITIONS OF DIGITALIZATION

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### Abstract

The purpose of the study is to highlight the role of intellectual capital in managing the innovative development of enterprises in the conditions of digitalization. The methodological basis of the research is a systematic approach, which allows combining knowledge, establishing communications, increasing competences, various management tools of innovative activity and the efficiency of the intellectual capital of enterprises in compliance with the principles of priority, complexity, people-centeredness. It has been established that the intellectual capital of the enterprise is formed at the expense of the existing personnel who possess certain knowledge, information, experience, competences, creativity, etc., and this gives the opportunity, as a result of transformation and effective management, to turn into corporate capital or other types of results of intellectual and innovative activity. Management of the innovative development of enterprises through the prism of intellectual capital management promotes the creation and implementation of innovative processes at the enterprise in the direction of the development and implementation of new technologies, products, services, organizational, innovative technical, socio-economic solutions of a production, financial, economic, marketing and other nature.

**Keywords:** *intellectual capital, competence, management, innovative development, innovativeness, capital management, enterprise, digital technologies, digitalization.*

**JEL Codes:** *O34, O31.*

### Introduction

Current military conditions in practice demonstrated the need for the creation and dissemination of new technologies and their distribution channels, which necessitates the need for innovative development of enterprises, which makes it possible to obtain competitive advantages and ensure the sustainability of

development in various bifurcation states of the economy. At the same time, it should be noted that the innovations themselves do not arise by themselves, but require the generation of knowledge, which ensures their use, diffusion and profit. Intellectual capital is the main factor that ensures the generation of knowledge for obtaining the results of innovation. This determines the relevance of paying attention to

intellectual capital in the competence of managing the innovative development of enterprises in the conditions of digitalization.

The purpose of the study is to highlight the role of intellectual capital in managing the innovative development of enterprises in the digitalization conditions. Achieving the set goal made possible by theoretical and conceptual research, gradual substantiation and achievement of the outlined research tasks, including:

- substantiation of the timeliness of the role of intellectual capital in the management of innovative development of the enterprise in current conditions;

- determination of the methodological base of the research, which involves the application of a systemic approach and the identification of the principles of the intellectual capital of the enterprise;

- a monographic study of the relevance of the achievements of scientists in relation to the issue of intellectual capital and its importance in the management of innovative development of enterprises in the conditions of digitalization;

- determination of essential special features of the enterprise's intellectual capital and its differences from other types of the enterprise's capital;

- clarification of the role of the intellectual capital of the enterprise, taking into account its specific features, in managing the innovative development of enterprises in the conditions of digitalization;

- to single out directions of management regarding the activation of the attraction of the intellectual capital in the enterprises' innovative development in the conditions of digitalization.

### **Literature review**

Current trends of globalization and intensifying competition on domestic and international markets require the active involvement of intellectual capital in the management of innovative development of enterprises. Publications (Ivanova N. et al., 2022; Vovk O., et al., 2021; Popelo O., et al., 2021; Tulchynska S., et al., 2021) are devoted to various aspects of increasing the competitiveness of enterprises and activating their innovative development, including through the

development of appropriate innovation and investment strategies. Within the framework of research (Korytko T. et al., 2021), the authors proposed an assessment of the intellectual capital of the enterprise and developed a methodical approach to the formation and selection of an innovative development strategy in the conditions of digitalization. The authors of the article (Kondratiuk Yu. et al., 2023) claim that the presence and effective implementation of the intellectual potential of construction enterprises is important for creating unique competitive advantages as a response to challenges caused by globalization, the era of the knowledge economy, as well as the development of communication and information technologies.

According to the authors (Chen Hong, 2022), the management of intellectual property is vital for maintaining a competitive advantage and managing the original open innovations that can increase an organization's commercialization and entrepreneurial performance. Scientists (Buiak L. et al., 2022) prove that in the conditions of global competition, intellectual capital is a determining factor in the highly efficient development of production and economic systems, therefore the process of managing their growth involves the regular generation of new ideas, stimulation and implementation of innovations in all spheres of enterprise activity. Article (Lao K. et al., 2022) is based on the statement that intellectual capital, like human resources, has become the key to the survival of an enterprise in the conditions of tough industry competition, as well as one of the important factors for enterprises to achieve their social responsibilities.

Given the availability of publications on the specified topic, we would like to emphasize the relevance of the chosen direction and the need for further research in this area.

### **Methodical approach**

It should be noted that the combination and activation of knowledge, the establishment of communications, the improvement of competences, the combination of various management tools of innovative activity, as well as the increase and improvement of the efficiency of the intellectual capital of enterprises requires the use of a systemic approach. The

methodology of the system approach makes it possible to comprehensively approach such relationships as the formation of intellectual potential, the use of intellectual resources, the acquisition of intellectual resources and their use, innovative development of the enterprise and its intellectual capital as a whole. The system approach makes it possible to reveal the result of the synergy of the interaction of all its components. A systematic approach to identifying the role of intellectual capital in managing the innovative development of an enterprise requires compliance with the following principles:

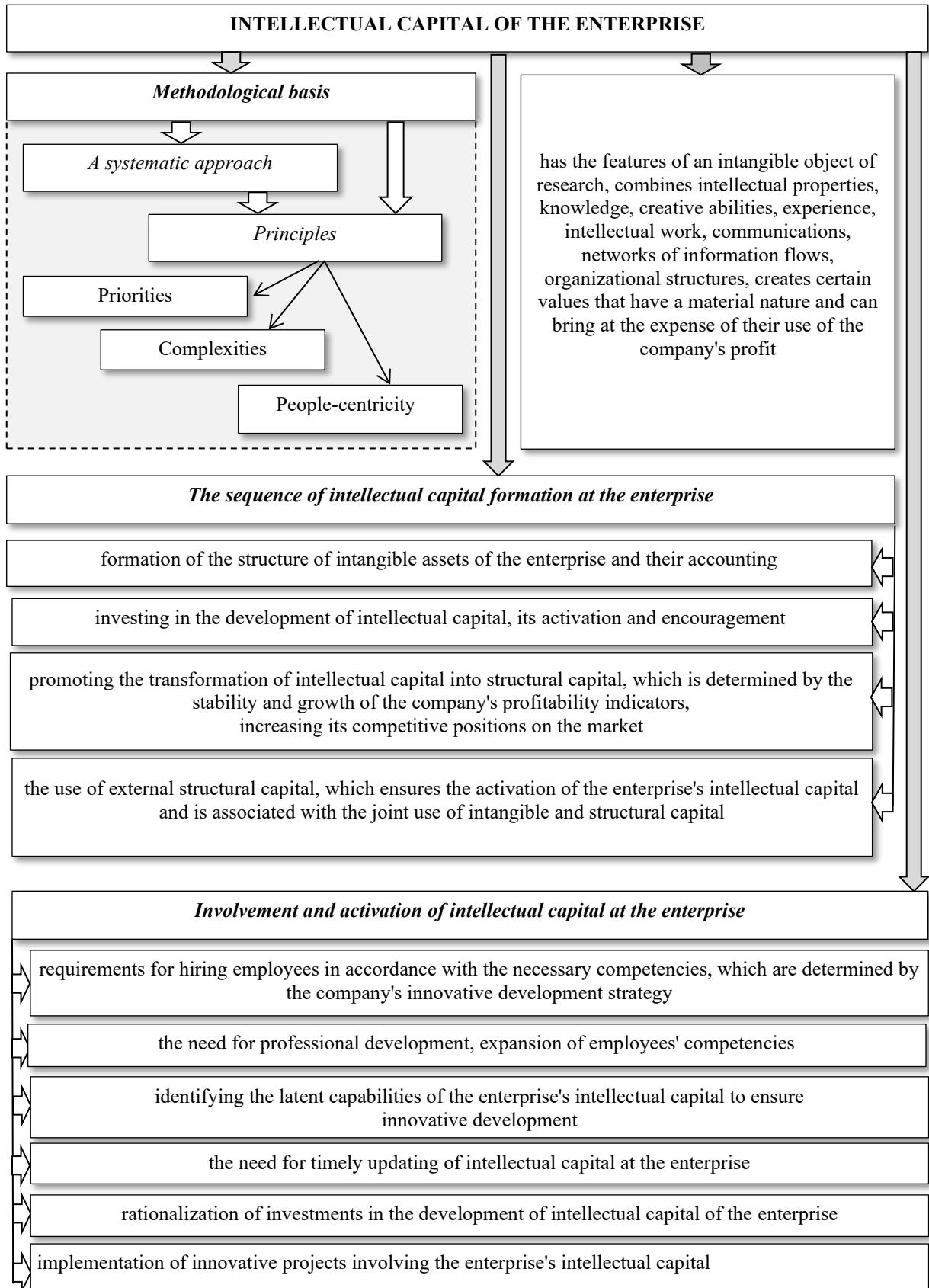
- priority, which makes it possible to substantiate the value of intellectual capital in the innovative development of the enterprise, obtaining competitive advantages and stability in current conditions of increasing threats and risks;
- complexity, which, in accordance with the principles of the methodology of the system approach, makes it possible to simultaneously focus attention on the multifaceted manifestations of the formation, use, involvement and activation of intellectual capital in the management of innovative development of the enterprise;
- people-centricity, which focuses attention on the inseparable connection of a person as a bearer of intellectual potential from the results of its intellectual activity and role in the innovative development of the enterprise.

The principles of priority, complexity and people-centeredness make it possible to ensure the improvement of the effectiveness of intellectual capital and its role in managing the innovative development of the enterprise.

### **Results**

Intellectual capital is a complex system formation that has features of an intangible object of research and combines intellectual properties, knowledge, creative abilities, experience, intellectual work, communications, networks of information flows, organizational structures, etc. (Fig. 1). Intellectual capital creates certain values that are of a material nature and can, due to their use and innovation, bring profit to the enterprise and ensure its competitiveness in the conditions of digitalization.

Effective management of the innovative development of enterprises makes it possible to use intellectual capital as a full-fledged resource that has its own unique capabilities. The intellectual capital of the enterprise is formed at the expense of the existing personnel who possess certain knowledge, information, experience, competences, creativity, etc., and this gives it the opportunity, as a result of transformation and effective management, to turn into corporate capital or other types of results of intellectual and innovative activity.



**Figure 1. Features of attracting intellectual capital at the enterprise in the conditions of digitalization**

\*Source: constructed by the authors.

However, it should be noted that the number of personnel of the enterprise is not proportional to the intellectual capital, so that the employee belongs to the share of the intellectual capital of the enterprise, that it has the necessary professional training that corresponds to the modern trends in the development of knowledge, science and technology, as well as the corresponding competences, which are determined by the ability to form and accept creative new ideas, inventions, the ability to test ideas and evaluate the application of innovations in production, economic, financial, marketing and other processes at the enterprise.

The peculiarity of intellectual capital from other resources is that it cannot be separated from its carrier from the employee. It is the bearer of intellectual capital that brings knowledge into action, which ensures the transformation of intellectual capital into material resources. Also, the intellectual capital of the enterprise includes intellectual property - patents, trademarks, licenses, databases, information networks, etc.

The creation of intellectual capital at the enterprise is formed in accordance with the following sequence:

firstly, formation of the structure of intangible assets of the enterprise and their accounting;

secondly, investing in the development of intellectual capital, its activation and encouragement to increase the efficiency of activities, which is called for in increasing the competences of employees, creating the organizational and economic foundations of knowledge management at the enterprise;

thirdly, promoting the transformation of intellectual capital into the structural capital of the enterprise, which is determined by the stability and growth of the enterprise's profitability indicators, the improvement of its competitive positions on the market;

fourthly, the use of external structural capital, which ensures the activation of the enterprise's intellectual capital, which is associated with the joint use of intangible and structural capital.

The formation and the use of intellectual capital at enterprises in the digitalization

conditions is connected with the management of the innovative development of the enterprise, the implementation of innovative projects, the strategies of the enterprise development in current conditions.

Management of the innovative development of enterprises through the prism of intellectual capital management promotes the creation and implementation of innovative processes at the enterprise in the direction of the development and implementation of new technologies, products, services, organizational, innovative technical, socio-economic solutions of a production, financial, economic, marketing and other nature.

Therefore, the following interdependence arises, in order to ensure the innovative development of enterprises, it is necessary to create new products, services, processes, etc., and this, in turn, causes the need to increase the intellectual capital of enterprises, which ensures the generation, diffusion and realization of knowledge and its transformation into innovative results of the enterprise. Intellectual capital acts as a tool for the formation of innovativeness of the enterprise, which ensures the enterprise's competitiveness and development in the conditions of digitalization. The formation of intellectual capital takes place under the influence of a combination of factors of the internal and external environment of the enterprise's development, but it has unique features due to the unique characteristics of the carrier of the intellectual capital of the enterprise - its employee with his internal culture, knowledge, experience, competencies, etc. Intellectual capital, under a favorable environment of its functioning, is able to ensure highly effective activity and accelerate the innovative development of the enterprise, its profitability and competitiveness due to the formation of a knowledge system, values, creative use of information, etc.

Management of the innovative development of enterprises in the digitalization conditions characterized by a high degree of uncertainty of threats and risks requires the development and implementation of a toolkit for quick adoption of effective management

decisions to increase the innovativeness of enterprise development. The choice of the most effective, timely management decision regarding innovative development is an urgent and important task of strategic management of the enterprise in the digitalization conditions. At the same time, it is important to activate and use intellectual capital in the innovative activity of the enterprise. Making managerial decisions regarding the activation and use of intellectual capital in the innovative development of the enterprise should be clear and planned, which makes it possible to carefully determine the executors of the assigned tasks, deadlines, resource provision, etc. This becomes the basis for making specific management decisions in the form of orders and orders. It is necessary to form a motivation system for the activation of intellectual capital, the creation of appropriate working conditions for employees and their interest in the innovative development of the enterprise, which will contribute to increasing its competitiveness in the conditions of digitalization.

Management of activation and attraction of intellectual capital should take into account:

- requirements for hiring employees in accordance with the necessary competencies,

which are determined by the company's innovative development strategy;

- the need for professional development, expansion of employees' competencies;

- identifying the latent capabilities of the enterprise's intellectual capital to ensure innovative development;

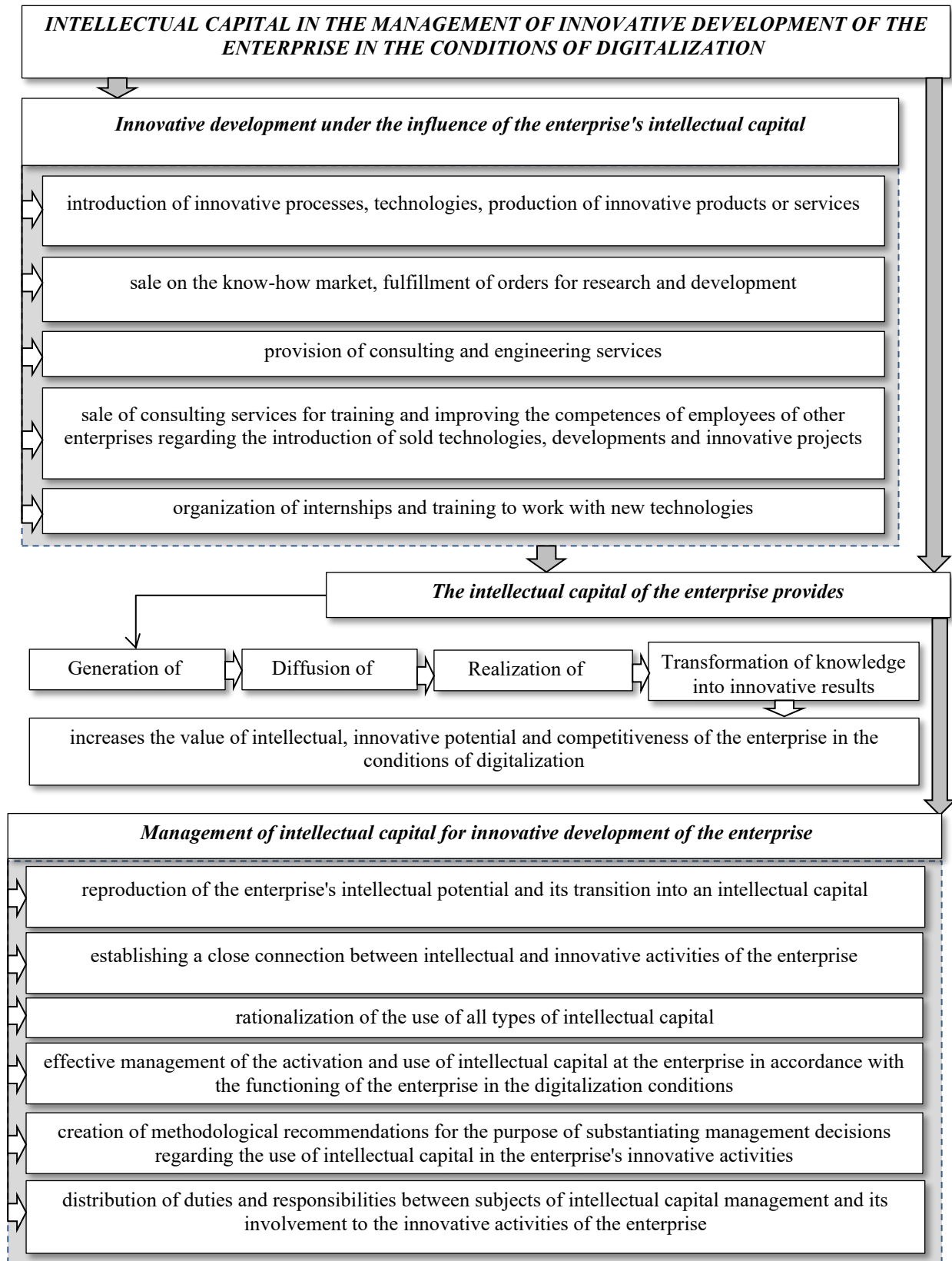
- the need for timely updating of intellectual capital at the enterprise in accordance with changes in the development of the innovative vector of the enterprise in accordance with current market trends;

- rationalization of investments in the development of intellectual capital of the enterprise;

- implementation of innovative projects with the participation of the enterprise's intellectual capital;

- assessment of the effectiveness of measures to activate and attract intellectual capital at the enterprise.

In addition to directing management efforts to the activation and attraction of intellectual capital, it is necessary to concentrate on the management of innovative processes at the enterprise (Fig. 2).



**Figure 2. Intellectual capital in the management of innovative development of the enterprise in the conditions of digitalization**

\*Source: constructed by the authors.

Innovative development of the enterprise is not only the introduction of innovative processes, technologies, production of innovative products or services. Innovative development with the participation of holders of intellectual capital also involves the sale of know-how on the market, the fulfillment of orders for research and development, the provision of consulting and engineering services, the sale of consulting services for training and improving the competences of employees of other enterprises regarding the introduction of sold technologies, developments and innovative projects, organization of internships and training to work with new technologies, etc.

Use of intellectual capital for the promotion of innovations and their sale to other enterprises (provided that the enterprise produces more new progressive innovations) provides an opportunity to create value, which increases the value not only of the intellectual and innovative potential of the enterprise, but also the value of the enterprise in the market chain and increases its competitiveness in the digitalization conditions.

Thus, taking into account the specific features of intellectual capital and its role in the management of the innovation process at the enterprise, in order to ensure the synergy of the development of the enterprise, it is necessary to ensure: reproduction of the enterprise's intellectual potential and its transition into intellectual capital; establishment of a close connection between intellectual and innovative activities of the enterprise; rationalization of the use of all types of intellectual capital; effective management of the activation and use of intellectual capital at the enterprise in accordance with the external and internal conditions of the enterprise's operation; creation of methodological recommendations at the enterprise in order to substantiate management decisions regarding the use of intellectual capital in the innovative activities of the enterprise; the distribution of duties and responsibilities between subjects of intellectual capital management and its involvement in the innovative activities of the enterprise to achieve the set tasks of the economic development of the enterprise.

To evaluate the effectiveness of measures to activate the intellectual capital of the

enterprise and its role in the innovative development of the enterprise, it is appropriate to use the toolkit of strategic analysis in the form of the use of matrix methods for evaluating intellectual and innovative management at the enterprise.

### **Conclusion**

The multifaceted role of intellectual capital in the management of innovative development of the enterprise, which includes aspects of management and motivation of personnel, strategic management of innovative development of the enterprise, has been proven. The combination of tools and efforts to manage the intellectual capital of the enterprise and its innovative development provide an opportunity to obtain a synergistic effect for the intellectual and innovative development of the enterprise, increase its competitiveness and sustainability in the conditions of digitalization.

According to the application of the system approach, the intellectual capital of the enterprise is a set of intangible assets of the enterprise, accumulated bases of knowledge and information, relationships with other market participants, etc.

The conducted research makes it possible to single out the scientific novelty, which consists in substantiating the role of intellectual capital in the management of innovative development of enterprises in current conditions, which are based on the application of the methodology of the system approach and the observance of the principles of priority, complexity, and people-centricity, which contain the essential features of the signs intellectual capital, directions for its activation and involvement in the management of innovative development of enterprises to obtain synergy in the effectiveness and development of the enterprise in conditions of rapid development of digital technologies.

For the activation and efficiency of the use of intellectual capital in the management of the innovative development of enterprises, it is necessary to penetrate all branches of management to the problems and ways of overcoming them regarding the use of intellectual capital in the innovative development of the enterprise. Management at the enterprise must be



competent in terms of activation and attraction of intellectual capital in the innovative development of the enterprise, apply creative, innovative management solutions, increase the

efficiency of project work, and implement management measures in a timely manner regarding the possibility of resisting the threats and challenges of the war conditions.

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