

# The System of Digital Management of the Enterprise's Labor Resources in the Context of Ensuring Personnel Security and Economic Development

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## Abstract

The main purpose of the article is to analyze the system of digital management of labor resources in the context of ensuring personnel security and economic development. In the context of the digital transformation of the economy, much attention is paid to the creation of an innovative personnel management system, as the competition between organizations is intensifying, the victory in which guarantees greater economic benefits. Based on the results of the study, the features and key aspects of the digital management system of the enterprise's labor resources were characterized in the context of ensuring personnel security and economic development. Further research will include consideration of the practical aspects of the digital management system of the enterprise's labor resources.

## Keywords:

*Public Management*

## 1. Introduction

In the conditions of a contradictory and at the same time dynamic external environment, there are actual opportunities and hidden threats for each organization due to an increase in the level of social uncertainty and the presence of potential risks. Today's challenges require more carefully informed decisions regarding the priority of the organization's development directions, where, accordingly, the personnel is the main resource that ensures the flexibility and adaptability of the organization's functioning, and is one of the most important factors for the success of its activities. This situation is universal and requires comprehensive and diverse development from employees. Particular attention should be paid not only to the professional

knowledge of specialists in a particular specialty, but also to their ability to promptly and adequately respond to market requirements, be able to communicate objectively, take personal responsibility for the results of their activities, and engage in self-education.

Digital and innovative technologies create new competitive conditions for the work of trade enterprises, including staffing. Currently, employers (small and medium-sized businesses) are faced with the problem of insufficient recruitment of personnel, a weak base for material incentives for human resources. Therefore, the formation of non-standard approaches to attract personnel becomes a competitive competence of the enterprise in the struggle for the commitment of the best candidates.

Today's economic conditions are driving investment in digital transformation as emerging markets try to increase their demand for technology to drive further growth, and mature markets look for new ways to cut costs and innovate. This is becoming a "circle of sanity and growth" with digital technologies driving consumer demand and income, education and training, and the efficient use of capital and resources, leading to increased economic growth, especially in emerging markets.

"Digitalization" of business and industry is the core of the "digital" economy and a growth factor, including the "digital" industry. Digital technologies are essential for increasing the efficiency of industry, and in some sectors they are becoming the basis of product and production strategies. Their

transformative power is changing traditional business models, production chains, and driving new products and innovations.

## 2. Methodology

The research methodology involves the application of a number of methods that form our methodology. Appointment methodology to achieve the main goal, namely the characteristics of the digital management system of the enterprise's labor resources in terms of ensuring personnel security and economic development. The methodological basis of the study is general scientific and economic-statistical research methods: historical-economic, monographic, scientific generalization.

## 3. Research Results and Discussions

Globalization processes in society, intersectoral integration, customer orientation, resource orientation, the development of digital technologies in recent decades have led to a change in the worldview of positioning modern enterprises in the business environment. Creativity, interaction, accessibility, simplicity and resilience become the priority principles of their functioning. Given this, the issue of searching and selecting the most effective resources, tools and technologies for the development of enterprises is being updated. Transformations test the role of personnel in the implementation of innovative business processes of enterprises. Automation and functioning of the virtual environment determines the application of an optimization approach to the personnel management system. The approval of the intellectualization of labor is based on the principles of lifelong learning, knowledge of foreign languages, digital literacy, creativity, teamwork, broad profile, staff mobility, etc.

Digitalization is changing the face and structure of the economies of various countries: the share of people employed in the field of information technology is growing rapidly, production is becoming more innovative and knowledge-intensive, information and knowledge as such are acquiring independent value. Structural changes are also taking place in the labor markets, where specialists in the field of information technology and specialists with

skills that are not amenable to algorithmization and computerization are becoming more in demand. The digitalization of the economy has a direct impact on the dissemination of information, which gives rise to such a phenomenon as hypercompetition, in which the competitive environment is characterized by impulsive and tough actions of competing economic entities. The optimal business strategy in the context of hypercompetition is the constant creation of new competitive advantages and the introduction of the latest technologies, in particular, digital technologies in the personnel management system. Human capital is gradually acquiring a major role in the digital economy, since it is a person who creates intellectual property and the potential for the capitalization of digital assets. Human intelligence becomes the main factor of production in the process of creating technologies, increasing the productivity of resources, achieving commercial efficiency, ensuring security, etc.

The totality of knowledge, skills and abilities of professionals is becoming the main production resource in the digital economy.

Digital management as part of Industry 4.0 is highly dependent on the innovative activity of the enterprise itself. In general, for example, in Ukraine as one of the countries of Eastern Europe, this indicator is not high (Fig. 1).

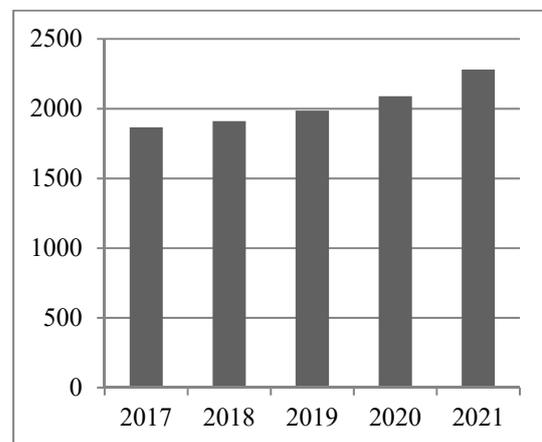


Fig. 1: Dynamics of the number of innovatively active enterprises in Ukraine, which actively promote modern digital technologies

The problems of labor and labor relations have been the object of close attention of researchers throughout the existence of economic science in the system of ensuring personnel security. These

relations have always had not only economic but also political significance, determining the economic efficiency and security of socio-economic systems at all levels - from a separate organization to the global world economic system. More recently, the ultimate goal of labor research has been to increase productivity, efficiency, and competitiveness. The modern "digital reality" and the challenges dictated by industry 4.0 are shifting the focus to the issues of adaptability and sustainable development of

economic systems through not just rational, but optimal labor resource management [1-3].

The main elements of digital management of labor resources in the context of ensuring personnel security and economic development are presented in Fig. 2.

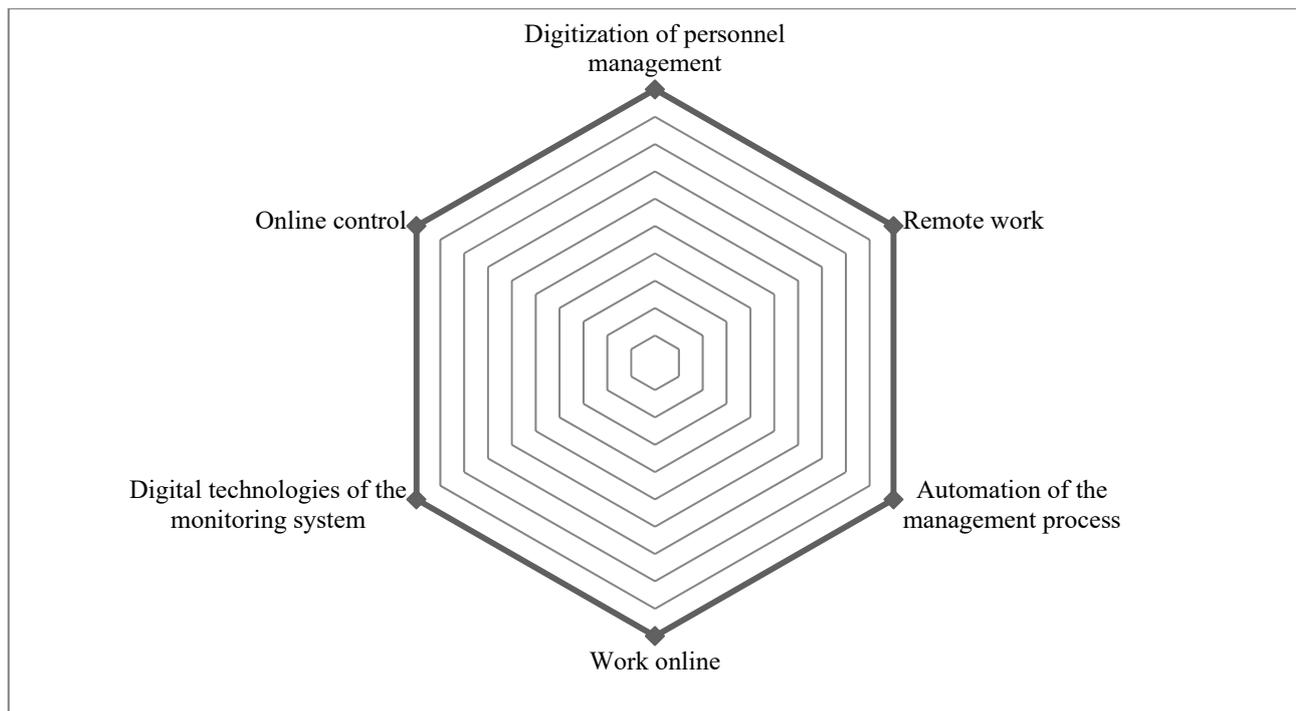


Fig. 2: The main elements of digital management of labor resources in the context of ensuring personnel security and economic development

What does the ideal employee of the future look like and what is the "most valuable knowledge and qualification" in the digital management? These are the abilities of an "information worker" who shares the corporate value system to select the necessary information and create a new one from a variety of existing options. Among the most significant professional skills are cognitive and systemic abilities, skills in solving complex problems, creating and processing content.

It is not the specific specialization of the employee that comes to the fore, but the ability to adapt, "self-programming" and "self-learning". The digital economy is shifting educational emphasis from "sustainable specialization" to "optimal

adaptation" of the individual. "Mastering a specialty" has been replaced by "interdisciplinary training", aimed at developing the ability not so much to use the received "template" knowledge as to "create" and use new ones in practice. From qualification requirements, the market is shifting to competence requirements, to the ability to make decisions under conditions of uncertainty and organize joint work. The assessment of the employee's potential in the personnel security system goes through an assessment of the adequacy of his reaction to changes in the information space [4-6].

The digital personnel management system includes strategic, tactical and operational methods of influencing the employees of the organization in

order to ensure maximum compliance between their capabilities, on the one hand, and the goals, conditions for the development of the organization, on the other. Through the use of labor, experience and intuition of the staff, the goals of the organization are achieved. This is possible if the interests of the firm and the employee are consistent, if the individual is satisfied with his work.

The competitiveness of personnel in the security system is the aggregate competitiveness of individual employees or their groups. The competitiveness of an employee is the ability for individual achievements in work, representing a contribution to the achievement of organizational goals. This contribution depends on the alignment of organizational goals with individual attitudes. In addition, the competitiveness of an individual employee is determined by the functions they perform. We emphasize that the contribution of an employee to the competitiveness of an organization can be both positive and negative, in case of incompatibility of the psychological climate and corporate culture of the organization with the value orientations of the individual. Thus, an employee can be characterized by high competitiveness within one process, one organization and low within another.

To manage the competitiveness of employees in the digital economy, a system for diagnosing competencies, psychological characteristics, personal values and their compliance with corporate culture is needed, based on formal and informal information sources. In addition, it must be dynamic and adaptive - to track deviations in the competitiveness of personnel from the given parameters and offer measures in the field of advanced training, career growth and development, correction of the emotional background of the individual and improvement of the psychological climate of the staff. These factors necessitate the use of machine learning in the creation of personnel management systems and the competitiveness of employees in the digital economy. The main innovative trends in digital management of the enterprise's labor resources in modern times are those presented in Table 1.

Table 1: The main innovative trends in digital management of the enterprise's labor resources

<i>Trends</i>	<i>Characteristics</i>
Use of Big Data	These are various tools, approaches and methods for processing both structured and unstructured data in order to use them for specific tasks. So, applicable to recruiting, Big Data can help collect data about the past experience of a candidate automatically, without the participation of a recruiter
Mood monitoring	Since the mood of employees directly affects their performance, HR professionals need to assess the emotional state of employees. Using a special application, an employee can mark his mood, indicating its reasons, and thus enable management to take measures to eliminate the problem
Online learning platforms	Digital technologies also affect this area, allowing employees to take a short 3-5 minute video training course, where experts share real cases from their own experience
Use of SMM technology in recruiting	Currently, most people spend a significant amount of time on social networks, so this platform is convenient for conveying information and studying a future candidate
Digitalization of interviews	Preliminary correspondence or communication using mobile applications allows you to save financial and time resources of the organization at the stage of candidate selection. So, the recruiter can send cases to the candidate or ask questions online

The use of innovative technologies allows the organization to increase competitiveness, save financial resources by automating HR functions, improve the company's image towards modern and high-tech, and increase loyalty to the organization from both employees and customers. Every year, an increasing number of companies in the world digitalize the functions of personnel management, and thereby simplify and make the work of HR

managers and the entire HR department as a whole more efficient. The passivity of organizations that do not use digital technologies leads to a loss of competitiveness, as they lose the opportunity to have human resources with unique capabilities in their company [7-11].

The modern innovative personnel management system involves the use of various digital trends, the use of which saves the financial resources of the organization, and also makes it possible to optimize human resource management processes from selection to employee evaluation. Therefore, the introduction of innovative technologies in the personnel work of Russian organizations will grow rapidly, because this will allow companies to take a leading position in the market and increase their efficiency.

The transition to industry 4.0, the massive use of cyber-physical systems to meet human needs are transforming the usual economic space. Artificial intelligence systems and the Internet of things, a cybernetic approach to business management are the determinants of strategic success. The personnel competitiveness management system includes methods of influencing the employees of the organization in order to ensure the maximum correspondence between their psychological characteristics, values and goals of the organization, its culture. Optimal digital management is machine learning [12-15].

The ideal employee in the digital economy is an "information worker" who shares the corporate value system, is able to select the necessary information and create a new one from the many existing options. The main type of machine learning that will be needed in solving recruiting tasks. is learning by precedent, or inductive learning.

Special algorithms for the complex diagnostics of competencies, psychological characteristics, personal values and their compliance with corporate culture, based on formal and informal information sources, reduce the time and resources associated with the formation, development and use of human resources. Human resource management systems based on machine learning, being dynamic and adaptive, allow tracking deviations in the competitiveness of personnel from the given parameters and suggesting measures in the field of professional development, career growth and development, correction of the emotional background

of the individual and improvement of the psychological climate of the staff. As a result, the competitiveness, efficiency and sustainability of the organization as a whole increase.

#### 4. Conclusions

Summing up, it should be noted that in order for the enterprise to assess the need to invest in the development of its own personnel, it is necessary to change the approach to the perception of the human factor in the development of the enterprise. The human factor should become the main factor of production, and the cost of training personnel, its development is considered the primary investment of entrepreneurs, without which the company will not be able to successfully compete in the market.

Today, there are many obstacles to stepping up the implementation of the digital economy. The main problem of digitalization is fragmentation, lack of consistency, consistency, completeness, consistency between the adoption of regulatory legal acts and the subsequent development of mechanisms for their implementation. The set of legislative and regulatory documents in the field of the digital economy has many gaps and contradictions in most countries of Eastern Europe. Therefore, all kinds of initiatives to introduce the digital economy are still at the design stage. To improve the state management of this process, first of all, it is necessary to coordinate the main strategic tasks with the mechanisms for their implementation and the legal framework. Of decisive importance in personnel management for the introduction of the digital economy is the mechanism for coordinating the efforts of all interested parties - representatives of state authorities, enterprises, educational institutions and scientific organizations. Specifically, the personnel of companies acts as the main factor of production in all spheres of economic activity, which increases the competitiveness of products, the standard of living of the population, ensures economic growth and state sovereignty of the country.

The study has a number of limitations and, first of all, they relate to the practical part of the analysis results. The study is purely theoretical analysis and opens up prospects for further practical research.

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