

## Human resource management in the logistics systems of modern companies

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**Abstract:** The key goal of the study is aimed at arguing the strategic aspects of human resource management in the logistics systems of modern companies. It has been determined that the effective functioning of modern companies cannot be imagined without human resources and a logistics system that ensures the life cycle of production of goods and services. The economic features of logistics systems of modern companies are substantiated. Structured resources of modern logistics systems of companies and practical recommendations for their rational use. A classification of human resources has been developed with arguments depending on their characteristics and type of implementation in the logistics system. The influence of the economic characteristics of the logistics activities of companies on the competitiveness and level of development of human resources has been demonstrated. To argue the strategic aspects of human resource management in the logistics systems of modern companies, multifactor correlation analysis tools are used based on data from global indices of logistics efficiency, human development, and competitiveness. The key trends in human resource management in logistics systems are identified, the correlation and interdependence of logistics, the effectiveness of human resource management and competitiveness are argued. Theoretical prerequisites for strategic human resource management in the logistics systems of modern companies have been developed and have their own value and importance. The obtained research results and generated scientific and practical recommendations can be applied when building strategies and long-term plans for the company's development in key areas: logistics, human resources and competitiveness.

### 1 Introduction

The functioning of modern companies is inextricably linked with the organization of efficient and stable logistics processes and supply chains, which are the key driving mechanism of the global economy. The purpose of the study is to determine the strategic aspects of human resource management in international modern companies based on the application of multifactor correlation analysis of global indices of logistics efficiency, human development and competitiveness. The logistics activities of modern companies are characterized by constant transformations and adaptive actions, which are associated with geopolitical uncertainty and lack of resources to fully perform key functions to achieve strategic business objectives. The intensity of growth of new technologies and innovations leads to the rethinking of existing ones and the improvement of business models and logistics systems of companies. Transformational processes of the global

economy affect not only the business processes of companies' logistics systems, but also the processes of resource management, in particular human resources, which are a key link. It is important to note that in modern conditions, the need to scale a business, increase its efficiency, controllability transparency and optimize existing business processes cannot be imagined without the human resources of companies. Human resource management (HRM) is one of the strategic directions of modern companies since personnel and employees of companies are the most expensive resource that affects a number of competitive advantage of companies in the market.

The stability and continuity of supply chains today is one of the main strategic directions in the global dimension, since many economic processes depend on them, which have an impact on the overall socio-economic indicators of individual companies, industries and

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countries as a whole. Definitely, in recent years there have been intensive processes of gradual changes in approaches and methods for managing economic processes in the global economy, which are dictated by various factors of both a global and macroeconomic nature. In recent years, the issues of managing human resources of companies have become popular and relevant. Many world-class companies are interested in ensuring that human resources are adapted to changes, have the necessary competencies and qualifications in order to be able to solve non-standard complex problems of production, sales, service, logistics and support. Since, in contemporary conditions, to maintain a competitive position in the global market, technologies and their tools that replace human labour are not enough, personnel are definitely needed, which should be the key resource of companies. Considering what has been presented, it should be noted that human resource management in modern conditions should act as a conceptual element of strategic management, development and planning of the company's activities. The relevance of identifying a separate element of human resource management in contemporary strategies for the functioning of logistics systems of companies necessitates a detailed study and improvement of existing approaches. The demand for this direction leads to the argumentation of key theoretical aspects and the formation of scientific and methodological approaches to organizing effective human resource management in the logistics systems of contemporary companies.

### ***1.1 Theoretical basis for the evolution of development approaches to human resource management***

Conducting a contemporary business cannot be imagined without an effective strategy and an established mechanism for managing resources by companies, which together ensure the competitiveness, stability and long-term growth of the company. It is important to state that important in the strategy of each organization is personnel management, which represents a targeted impact that is necessary for organizing the activities of people in the production of goods and services, including the whole definition, organization execution, motivation, coordination and control [1]. In contemporary management theory and practice, it is worth highlighting the concepts that developed within the framework of the main new approaches to management - economic, organic and humanistic.

The formation of the presented approaches is due to the evolution of market relations. Definitely, all these approaches remain relevant and in demand when solving problems of personnel management to increase production efficiency. Based on this, it should be noted that the study of these approaches from the position of reflecting in them the essence of human resources, conceptual principles and management functions is necessary for the formation of a comprehensive understanding of the contemporary human

resource management strategy of companies. It should be noted that within the framework of the economic approach, a strategy for managing human resources is distinguished, the guidelines for which are: technical, not management, training of employees; leadership; balance between power and responsibility; discipline and a clear hierarchy of subordination to key business tasks and company goals [2].

This approach is based on the centrality of the technical component rather than managerial training personnel in the company. Consequently, companies are considered as a mechanism and human resources as a certain element of this mechanism, which must function together. The basic principles of this concept include the following: ensuring the unity of the company's management in its goals and the desire for the company's development; compliance with managerial discipline and hierarchical management of subordination; fixing the required amount of control over personnel activities; compliance with the constructive separation of the headquarters and line structures of the organization; achieving a balance between power and responsibility; ensuring discipline in subordination and showing respect in accordance with corporate rules; achieving equivalence with the overall goals of the company. It is important to state that the concept of labor management is based on a bureaucratic organizational culture. Therefore, the manager in the process of his activities is guided by such stereotypes as: employees need management and control from managers; for employees, the incentive is, first, economic interest; the organizational structure must be designed to control the desire of workers and to the maximum extent should not neutralize the possible consequences of their unforeseen actions [3].

In the interorganizational approach to management, two concepts are distinguished: human resource management and personnel management. Specific qualities of an organic approach to personnel management are that in the management process the focus is on the selection of specialists, their training and career planning. The same or organizational approach is of great importance for new perspectives in personnel management, taking this type of management activity beyond the functions of work and compensation. The personnel function has gradually expanded by search and selection of specialists, career planning a significant figure for the company, feedback on the civilian management apparatus, and development of their qualifications. The argumentation of the role of human resources allowed to form a new vision of the company as a fundamental system. Analogies were used that determined a new view of the business environment. The first, based on the identification of the company with a human personality, determined the goals, needs, motives, maturity and decline or revival of the company. The second, taking the functioning of the human brain as a model for describing the organizational reality, allowed to look at the enterprise as components connected by lines of management, communication and monitoring. Recently, a humanistic approach to the management of the company's

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labor resources has been actively developing, considering people as a unique resource. The features of this approach are the focus on the organization of culture; the influence of the cultural context on personnel management [4]. Contemporary trends in digitalization of all industries have led to an acceleration of the life cycle of companies' goods and services and require them to quickly adapt and transform in order to appropriate new technologies and knowledge. In these conditions, the importance of creative teams or project groups increases sharply, which are created to solve non-standard problems. Hence, the formation of a team of workers by creating appropriate conditions for unification is of paramount importance workers in the production team and logistics systems of companies. Definitely, the transition to a humanistic approach to managing the labour potential of an enterprise does not mean a complete rejection of previous approaches, and their implementation in aggregate is possible, depending on the goals and objectives of the companies. It is necessary to note several main points that highlight its difference. Firstly, within the framework of this approach, attention is focused on the complication of the control object -person. A contemporary manager must

unite not just individuals in the work collective, but the potentials of individuals. This task is necessary and at the same time difficult because it requires from the manager of mastering the latest technologies in personnel management. Secondly, taking into account the complex nature a person is determined by the dominance of socio-psychological methods of controlling his behaviour, since the latter is a phenomenon of socio-psychological origin. Thirdly, in addition to expanding the manager's functions, the importance of his role as an integrator of subordinates is growing. Fourthly, additional indicators the effectiveness of personnel management is becoming social indicators [5].

A significant addition to the above approaches to the evolution of personnel management may be taking into account changes in the role and functions of a manager, as well as changes in a person as an object of management Based on what has been presented, the authors, based on a scientific generalization, have formed a structuring of the evolution of the development of approaches to human resource management of companies, which is presented in Table 1.

*Table 1 Structuring the evolution of development of approaches to human resource management of companies*

APPROACHES	THE NATURE OF HUMAN LABOR	CONTROL OBJECT	MANAGEMENT METHODS
ECONOMIC APPROACH	Physical, Low Qualified	Human as a worker Power	Economic, Administrative
ORGANIZATIONAL APPROACH	Automated, needs a high qualifications	Human as a factor Production	Economic, administrative
HUMANISTIC APPROACH	Intellectual, Creative	Human as complex bio-psychosocial phenomenon	Comprehensive Application of all Management methods, Preference is given Sociopsychological Methods

Having stated the above, it should be noted that human resources management is a systematic organizational process reproduction and effective use of personnel to enable companies to take leading positions in competition [6-7]. Despite the considered evolution and development of the theory, there is an urgent need to determine the specifics of human resource management in the logistics systems of companies, which requires a more detailed study.

**1.2 The theory of human resource management in logistics systems of companies**

For long-term growth and ensuring the efficiency of contemporary logistics systems of companies, an integral part is the development of human resource management tactics, which are a key tool for companies to achieve competitiveness and scale their business. In the scientific literature, there are many studies and scientific approaches to analyze and focus on them, selecting the most relevant ones and those that are similar to the topic of research. The study of basic aspects of logistics and supply chain

management is emphasizes in scientific approach [8]. A methodology for assessing human potential and training needs of employees in the pharmaceutical industry is propose. This approach emphasizes the importance and relevance of personnel development and its maximum adaptation to new technologies and tools, which is quite in demand and necessary in contemporary conditions. Definitely, the approach deserves attention, but does not reveal the main aspects of human resource management in the logistics systems of companies with the argumentation of key directions and trends in development, which requires improvement and further research. The argument for the need to ensure the efficiency of companies is present in study [9]. The use of strategic human resource management models to improve the efficiency of an organization is proposed. This approach is relevant and reveals the main aspects for increasing the efficiency of companies based on an integrated approach to data-driven management for long-term business success. Clearly, the approach reveals the main aspects of the organization of strategic human resource management, but does not reveal the features of their management in the logistics systems of

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companies, which requires improvement and development of this research.

The specific features of the functioning of marketing and logistics as a unified company management system in a pandemic are revealed in study [10]. This approach covers the main aspects of organizing the strategic management of a company, including marketing and logistics, taking into account many factors and uncertainty, which is relevant and in demand in contemporary conditions. The recommendations formed in the same way have their value and can be applied in practice, however, the specifics of human resource management in the logistics systems of companies are not disclosed, which requires further research. Historical aspects, the origin, essence and relationship of the key concepts of personnel management and human resource management are revealed in study [11]. This approach is basic in the theory of development of human resource management, the evolution and historical aspects of development are defined, but the features of management in the logistics systems of companies are not disclosed, which requires further addition and expansion of this research depending on the purpose and objectives of the study.

The argumentation of the features of the integration of logistics systems of developing countries into international logistics channels is considered in study [12]. The peculiarity and necessity of building a global logistics system in the world is highlighted with the argumentation of the main elements and tools for this. This approach is important when organizing an international or developing a company's global logistics strategy, but the role of human resources in this system and taking into account the specifics and need for implementation in the logistics system are not disclosed, which requires further research. An integrated approach to organizing logistics activities has been formed in study [13]. Key aspects of organizing logistics activities of companies are revealed, taking into account all influencing factors. This approach is fundamental for organizing the strategy of logistics activities of companies, but the essence of human resource management in this system is not revealed, which requires further research and expansion of the goals and objectives of the study. Having stated the above, it should be noted that in the scientific literature there are many studies and scientific approaches, however, there is no unified approach and methodology to the organization and management of human resources in logistics systems, which confirms the relevance and necessity of this research.

## 2 Methodology

### 2.1 Peer review process

The global intensity of development of new technologies and approaches to managing contemporary companies requires review and improvement of company management systems for their transformation and the need to ensure efficiency, optimal processes and profitability.

Based on the use of scientific critical analysis and generalization, it has been proven that the effective functioning of contemporary companies cannot be imagined without human resources and a logistics system that ensures the life cycle of production of goods and services. Justified conceptual and economic features of logistics systems of contemporary companies. Structured resources of modern logistics systems of companies and developed practical recommendations for their rational use. Based on the classification, the author has developed a structuring of human resources depending on their characteristics and type of implementation in the logistics system. To achieve the key goal of the study in terms of the formation of aspects of human resource management of companies' logistics systems, the influence of the economic characteristics of the logistics activities of companies on the competitiveness and level of development of human resources is argued.

To substantiate the strategic aspects of human resource management in the logistics systems of contemporary companies, multifactor correlation analysis tools are used based on data from global indices of logistics efficiency, human development and competitiveness. Economic phenomena and processes of logistics activities of companies in current conditions depend on a large number of factors. As a rule, each factor separately does not determine the phenomenon being studied in its entirety. Only a complex of factors in their interrelation can give a more or less complete picture of the nature of the phenomenon being studied. To apply multivariate correlation analysis, several stages of data preparation were completed. On the first stage, factors that have an impact on the logistics systems of companies (indicators of effective logistics) are identified, and the most significant ones are selected for correlation analysis. At the second stage, initial information is collected and assessed, namely the structural indicators of the global logistics performance index, global competitiveness index and human development, necessary for correlation analysis. At the third stage, the nature is studied and the relationship between the factors and the effective indicator is modeled, that is, a mathematical equation is selected and justified that most accurately expresses the essence of the relationship being studied. At the fourth stage, the main indicators of correlation analysis are calculated. At the fifth stage, a statistical assessment of the results of correlation analysis and their practical application are given. To model the features of human resource management in the logistics systems of companies, it was determined that the effective indicator  $Y$  will be the global logistics efficiency index (LPI), and the factor  $X_1...X_N$  signs that influence the effective indicator will be the following indicators: global indices of human development (HDI) and competitiveness (GCI), the totality of which is interconnected and has an impact on the strategy. Since the correlation relationship is fully manifested only in the mass of observations, the data sample size must be large. In this case, global indices are

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analyzed for all countries of the world as of 01.01.2024. The criterion for the homogeneity of information is the standard deviation and coefficient of variation, which are calculated for each factor and performance indicator. The standard deviation shows the absolute deviation of individual values from the arithmetic mean and is determined (1):

$$\sigma = \sqrt{\frac{\sum(x-x)^2}{n}} \tag{1}$$

The coefficient of variation characterizes the relative measure of deviation of individual values from the arithmetic mean (2):

$$V = \frac{\sigma}{x} * 100\% \tag{2}$$

If the variation is more than 33%, then the information is heterogeneous and it is necessary to exclude atypical observations, that is, reduce the size of the data sample for structural indicators. When checking the compliance of the initial information with the law of normal distribution, the following condition is taken into account: the bulk of the

information being studied for each indicator should be grouped around its average value, and objects with small or very large values should occur less frequently.

**3 Result and discussion**

The activities of the current business segment are inextricably linked with the organization of an effective development and operating strategy, which must take into account all aspects of the company’s activities in order to ensure controllability, efficiency and profitability. It is important to note that the logistics system of a contemporary company is a separate planning and multifaceted area in the company’s production activities, which includes planning operations with materials, their storage, transportation and much more. The main goal of this system is to deliver a product or service safely to a specific point within a specified period, spending a minimum of resources on this, ensuring transparency and efficiency of this process [14]. To substantiate the key aspects of human resource management in the logistics systems of contemporary companies, one should consider the conceptual goals and objectives of the logistics system, which is presented in Figure 1.

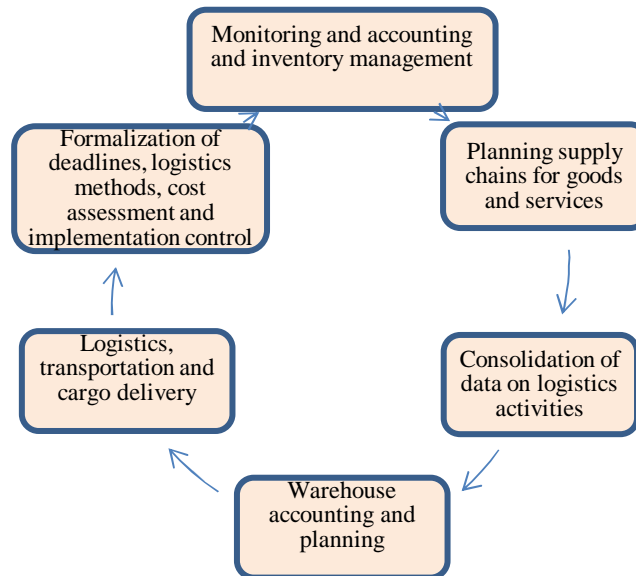


Figure 1 Conceptual goals and objectives of the logistics system of modern companies

Consequently, the logistics system of a contemporary company is aimed at ensuring the supply chain of the required products to the required place, at the specified time, at optimal costs, the required quality and quantity. The intensive development of contemporary technologies requires the acceleration of development and logistics processes, which is associated with the transformation of the global economy into a service economy with a key priority and focus on the consumer. In addition, factors influencing the intensive development of logistics systems of contemporary companies include the formation of global supply chains, a sharp reduction in the life cycle of

products, the reorientation of traditional production to “made-to-order” production and mass customization, the structural complexity of goods and the rapid expansion of their diversity, the introduction new logistics technologies and logistics tools based on the implementation of information systems and logistics support technologies. All this is due to the ultimate need for contemporary companies to reduce the total cost and time spent associated with the movement of goods and services based on the implementation of innovations and technologies [15].

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The priority condition for the effectiveness of logistics strategy and tactics is the organization of harmonious production and sales, the integration of logistics systems of companies in the main areas (production, supply, and distribution) in order to optimize resources when organizing a business and implementing a corporate strategy. The starting point for such integration is the continuous monitoring of demand dynamics, taking into account which the planned indicators of the component parts of the supply chain are developed and on the basis of which business scaling and the search for new segments and customers are carried out. It is known that a sign of

production activity is actions aimed at satisfying human needs, often accompanied by the introduction of material changes in the resources used or their state in space and time. A feature of modern logistics is activity based on economic compromises and focused on customers. It is important to note that modern logistics systems of companies are complex to manage, as they include a number of components, elements and resources. Based on scientific generalization and structuring, the authors have formed conceptual features of the formation of resources of logistics systems of contemporary companies, which are present in Figure 2.

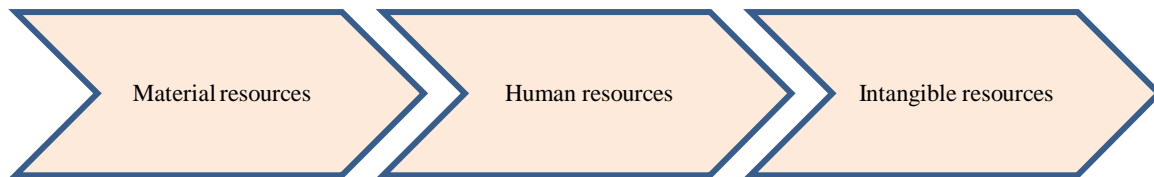


Figure 2 Conceptual features of the formation of resources of logistics systems of modern companies

Therefore, each type of resource in the logistics systems of contemporary companies should be considered in detail:

**Material resources:** represent the company's resources that are on the company's balance sheet and are presented in the form of investments, working capital and fixed capital. When organizing and building the business strategy of companies, supply chains are formed, which consist of links from other partner companies. With such a system of interactions, it is necessary to take into account the features of financial agreements that underlie partnership relations. An important fact is that when calculating costs in the supply chain, it is necessary to analyze the company's transaction costs. The presented explains the fact that the size of available assets determines the efficiency of the process of managing them [16].

**Intangible resources** of the logistics systems of modern companies represent unique information that has high managerial value for the company. The information mentioned is necessary for analysis and making management decisions and performing functions for organizing the supply chain, control and management of inventories, accounting, and others. It should be noted that intangible assets should be structured into key categories: reputation; strategic assets; own technologies. In modern conditions, reputation is included in the brand and trademark of companies that ensure the process of promotion and advertising of the company. Strategic assets are the advantages and strengths of companies that provide competitive positions in the market and characteristic elements of uniqueness and value. Proprietary technologies include copyrights and patents, which characterize the value and uniqueness of the company in contrast to competitors. Effective management of these assets provides a competitive advantage in the market and its scaling in accordance with the company's strategic priorities.

**Human resources** in the logistics systems of modern companies are characterized by the promising capabilities of the personnel who perform functional responsibilities when working in the company. The level of professionalism and the availability of special skills is determined by experience. For effective interaction and communication in companies, corporate ethics are formed; events and team building are held to consolidate the human resources of companies. The efficiency of human resources directly affects the efficiency of the company's logistics system, which is relevant and necessary in modern conditions [17].

It should be stated that the modern human resource interaction with companies is characterized not as a multifaceted mechanism that fulfils specific goals and tasks, but as a reasonable and conscious individual who has goals, morals, aspirations and values. This type of interaction has a more global scope of interaction than the ordinary performance of certain tasks or tasks at the workplace. In any modern company, except for labour operations and functions that ensure the movement of material, financial, informational, service streams, human resources (company personnel) enter personal relationships, thereby creating a cultural environment, the social climate of the company. Human resources have a long-term nature of use and the possibility of development in the process of use.

Development of the company's human resource through training in in the process of their labour activity - a strategically important distinguishing feature of these resources appears in relation to all the others, which are present in Figure 2. Taking into account the above, it should be noted that the approach to human resource management is ensured by a balance between the flows (incoming and outgoing) of personnel so that the company's human resource potential evolves in accordance with the company's strategy. Optimization of personnel

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flows is a conceptual goal of human resource management in the logistics systems of companies. At the same time, when speaking about optimization, it is necessary to indicate the purpose of the movement of personnel flows, only this will ensure efficiency [18].

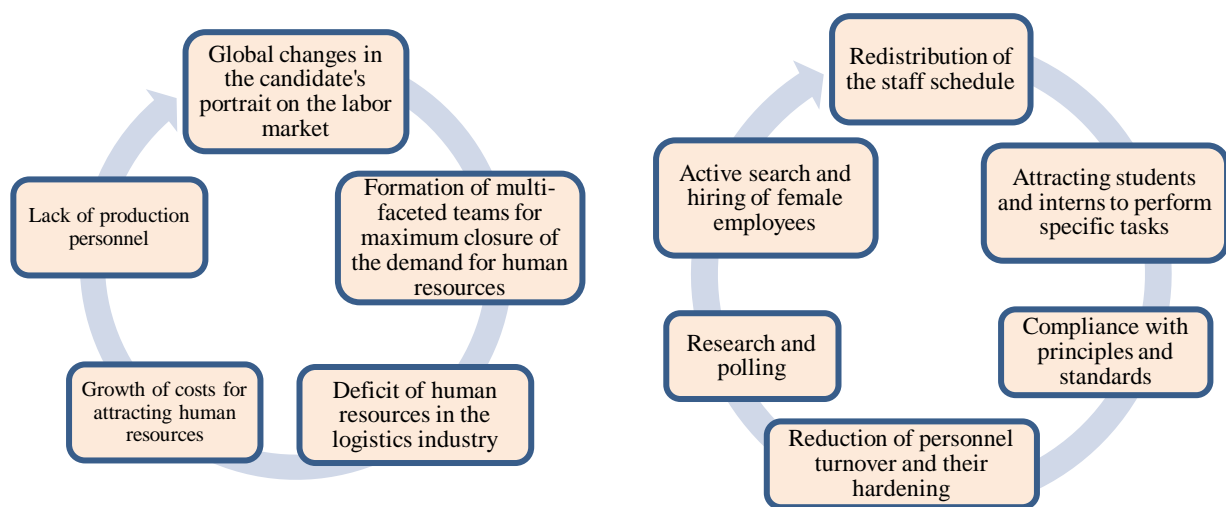
To substantiate the conceptual features of human resource management in the logistics systems of modern companies, the authors present the structure of human resource management in Table 2.

*Table 2 Structure of human resources management in logistics systems of modern companies*

OPTIMIZATION OF INCOMING STREAMS	OPTIMIZATION OF INTERNAL FLOWS		OPTIMIZATION OF OUTPUT STREAMS
	Training	Development	
ANALYSIS OF STAFFING	Labor organization	Training	Planning the release of personnel
PERSONNEL PLANNING	Motivation	Career planning	Dismissal of personnel
SELECTION AND INTERVIEW	Payment of labor	Social development	Analysis of staffing
RECEPTION OF PERSONNEL	Control		
ADAPTATION OF PERSONNEL	Personnel evaluations	Formation of the company's reputation and image	

Consequently, attention should be focused on the fact that in modern conditions of global transformations, there is a gradual change in the representations, approaches and methods of managing the economic processes of companies. In particular, relatively recently, the problems of managing human resources at the enterprise have acquired great importance. Economic entities are directly interested in forming labor teams that would have all the resources necessary to solve the complex problems of modern production. Based on this, the management of human resources is an integral part of the strategic development of the logistics system of the enterprise, as well as an integral part of the management process, in which the focus of attention is directed to the work of people. Through the management of human resources, management tries to achieve the main goals of the enterprise with the help of people. The activity of human

resources management at the enterprise includes a number of actions on the part of the management, which together form the following cycle: personnel selection, certification and evaluation of personnel, motivation and remuneration, development and career growth. The activity of managing human resources in the logistics systems of companies is based on the principles and methods of a large number of sciences, including management theory and organization, labor law, labor economics, sociology, psychology, conflictology, ethics, political science, and a number of other sciences. In connection with this, it is not accidental that it is relevant and necessary to determine the main aspects of the management of human resources in the logistics systems of enterprises in modern conditions. Key trends and recommendations for optimization of human resource management in logistics systems are presented in Figure 3.



a) Key trends of human resources management in logistics systems b) Recommendations for optimization of human resources management in logistics systems

Figure 3 Key trends and recommendations for optimization of human resources management in logistics systems

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The intensive growth of logistics activity in the world and its key place in global economics conceptually determined the importance and necessity of effective management of human resources. This is because the logistics industry occupies a leading position in the search for employees and the demand for new vacancies. A long search for candidates leads to a shortage of personnel and an increase in the closing time of vacancies, which entails an increase in the cost of attracting new employees, and has led to adjustments in human resource management strategies in the logistics systems of modern companies.

Contemporary approaches to personnel retention are becoming central to human resource management not only in the logistics systems of companies, but also in general strategy. Modern companies must navigate the development trends of new approaches, management methods should not adapt to changes, but create them based on new technologies and innovations. Based on this, the authors conceptualized the key innovative and technological trends in human resource management in the logistics systems of companies, which are presented in Table 3.

*Table 3 Key innovative and technological trends in human resource management in logistics companies in modern conditions*

INNOVATION AND TECHNOLOGY TRENDS	INTRODUCTION AND BASIC PATTERNS OF HUMAN RESOURCE MANAGEMENT OF LOGISTICS SYSTEMS
IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE OR MACHINE LEARNING IN HR PROCESSES	The implementation of artificial intelligence technologies has led to the emergence of various applications and programs for HR and recruiters that use artificial intelligence to perform certain tasks and find solutions. Artificial intelligence radically reduces the amount of time spent on certain tasks by up to 70% and optimizes human resource management processes, taking into account the basic directions of the company's logistics system.
HYBRID AND REMOTE WORKING MODE	The demand for office work is increasingly decreasing, and it is being replaced by remote and hybrid work modes. The advantages of this format are greater flexibility in work, increased productivity, savings in office maintenance costs, and greater diversity among employees. With the increasing use of technology and various communication channels, organizing remote work and building business processes in logistics and other industries has become much easier.
INCREASING REQUIREMENTS FOR HR	HR functions have become more strategic and focused on driving business growth. This is characterized by the fact that HR workers must set themselves all the highest goals and standards and, accordingly, demand appropriate knowledge, skills and qualities from their employees. Responsibility and ethics demands are also increasing, so expectations from HR are also changing and becoming more stringent. However, these qualities have many advantages in organizing the human resource management process, leading to increased productivity and productivity.
ENSURING EQUITY AND INCLUSION IN HUMAN RESOURCE MANAGEMENT	An inclusive workplace is a comfortable place with respect, personal space and opportunities for career growth. These principles allow many companies to create a favorable corporate culture in the workplace and attract more talent to the organization, while reducing the shortage of specialists and promoting the employer brand. Companies with high indicators of gender, ethnic and cultural diversity achieve higher profitability and enter new markets faster, and have at least 19% higher employee retention rates than companies that do not implement these principles.
AUTOMATION OF HUMAN RESOURCE MANAGEMENT PROCESSES	Automation and optimization of routine processes is gaining increasing relevance and demand in any field of company activity. Of course, this also applies to the human resource management industry, as evidenced by the multitude of automation tools and the popularity of entire HRM systems that increase efficiency and streamline human resource management.
DEVELOPMENT OF NEW LEADERSHIP METHODOLOGIES	Modern processes and their successful management require new leadership models that emphasize empathy, emotional intelligence and adaptability. One aspect of this trend is the development of new leadership models that better meet the needs of modern organizations. New models focus on employee intelligence, empathy and emotional intelligence as a key component of effective leadership. Companies will need leaders who can navigate complex and changing environments and manage and motivate remote workers.
Augmented reality and virtual reality technologies in initial and development programs	Augmented and virtual reality technologies are becoming increasingly popular in advanced and development programs. The development of AR and VR in the field of medical education by personnel will ensure the creation of immersive primary education, which will help students to begin training in a practical environment. Together with AR and VR, it is possible to create a realistic middle ground that will help healthcare workers focus on practical tasks and become more aware of working with new technologies, which can be improved and adapted in the future.
ANALYTICAL METRICS	As analytics and metrics become increasingly important in human resource management, companies are looking to monitor and measure their productivity in areas such as worker recruitment, employee turnover rates, and performance metrics. diversity. This trend is driven by the fact that most businesses have benefited from the infusion of data analytics into optimizing talent management strategies, increasing payroll and saving workers, and leading to business productivity.
CHATBOTS AND ONLINE ASSISTANTS	Chatbots and virtual assistants are computer programs that use artificial intelligence (AI) to imitate human intelligence, nutrition, and health care. The expansion of chatbots and virtual assistants in HR is a trend that is gaining popularity due to its potential to optimize communication and improve the visibility of employees.



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Companies introduce non-material bonuses and motivate employees to be interested in the company, which is confirmed by a friendly attitude towards each employee and an individual approach to his development and career growth. Undoubtedly, these measures are aimed at creating an attractive and comfortable working environment for the retention of qualified personnel in the conditions of fierce competition in the logistics industry, however, this will not ensure efficiency if it is not kept up with time. It is important for logistics companies to adapt to the changing labor market and the growing demands of employees. Optimizing hiring and personnel management processes can significantly increase work efficiency and staff satisfaction, and as a result, the logistics of companies [19].

It should be noted that the evolution of human resource management through the prism of organizing an effective logistics system of a company is relevant and necessary in today's conditions. Human resources are the most important and strategic resource of any company, without which it is impossible to imagine most business processes of logistics companies [20]. Taking into account the above, it is necessary to emphasize that the success of the logistics system of companies depends on a number of factors, including the optimality, transparency and controllability

of human resource management processes that ensure the production process, build logistics supply chains and customer service. Based on this, the implementation of basic recommendations for human resource management in the logistics system of companies will not be enough, and it is necessary to analyze, study and implement trending approaches, tools and methods that are effective and ensure the achievement of strategic goals and objectives in short periods. Consequently, the development of technology provides new opportunities for business and workers, in particular in the field of human resource management of companies' logistics systems. Over the past few years, there have been intense trends towards the implementation of innovations and technologies in all sectors of the global economy, which leads to economic growth, transformation of existing management approaches and scaling of markets. Based on the presented, to argue the key aspects of human resource management in logistics systems, it is necessary to consider the key trends in the development of logistics activities in countries around the world, based on the global logistics efficiency index and its structural indicators, which are demonstrated in Figure 4.

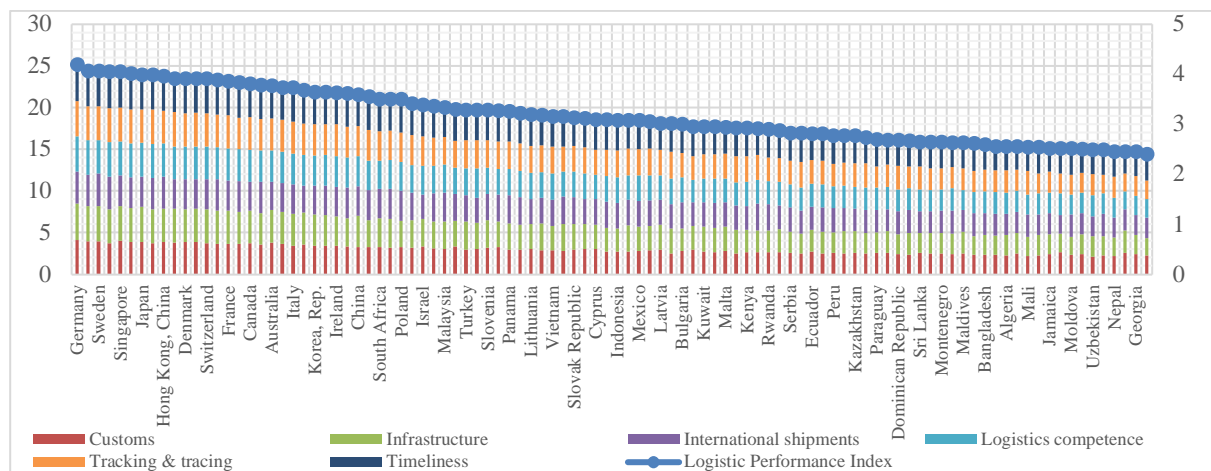


Figure 4 Trends in the development of logistics activities by country of the world based on the analysis of the global logistics efficiency index and its structural indicators as of 01.01.2024

The trends in the evolution of logistics activities are clearly presented in the light of the regional and structural indicators of the effectiveness of logistics. So, it is clear that the index shows what is taken for analysis a weighted average of a country's score on six key dimensions, indicating the relative ease and efficiency with which goods can be imported into and within the country. The trends in the evolution of logistics activities are clearly presented in the light of the regional and structural indicators of the effectiveness of logistics, so it is clear. That the index shows what is taken for analysis a weighted average of a country's score on six key dimensions, indicating the relative ease and efficiency with which

goods can be imported into and within the country. The main tendencies and tendencies in the introduction of logistics activities in the world include:

- The increasing role of logistics in the global economy, which is ensured by the fact that efficient supply chains and logistics bring success to companies. This confirms the fact of the intensity of implementation of new technologies and innovations in logistics systems.
- Evolution of new technologies in logistics. The development of new technologies, including digital technologies, is fundamentally changing the logistics landscape. Automation, robotics, artificial intelligence and other technologies allow logistics companies to

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increase the efficiency of their operations, improve service efficiency and reduce costs.

- Transformation of demand for logistics services. There will be a change in goods and services, and increasing competition will lead to a change in logistics services. Customers rely on logistics companies for more efficient, reliable and cost-effective services [20-21].

To argue the main aspects of human resource management in current logistics systems of companies, the need to implement multifactor correlation analysis tools is substantiated. Correlation analysis will determine whether there is a connection between the analysed indicators in one or two samples. If there is a connection, then an increase in one parameter leads to an increase (positive correlation) or a decrease (negative) of the other. Correlation analyses To carry out a multifactorial correlation study, an information base has been determined, which consists of a set of structural indicators of the effectiveness of logistics activities in the countries of the world (LPI), and to argue for its relationship with human resource management and the impact on the effectiveness of logistics management, it has been adopted on the basis of the human development index. Updating the relationship between human resource management and the need for it in the logistics systems of companies to ensure a high level of competition, an assessment of the influence of the global competition index was carried out will determine whether the value of one indicator can be used to predict the possible value of another: differentiation coefficient of the human development index. Characterizing the degree of difference in the socio-economic development of the analysed countries, regions within the country, social groups. Health index differentiation coefficient; education index differentiation coefficient; income index differentiation coefficient; mortality index differentiation coefficient as an indicator of differences in the health status of compared countries or regions; coefficient of differentiation of the level of vocational education, reflecting differences in the degree of enrolment in the second and third levels of education in the countries or regions under study [21-22].

However, in addition to the effectiveness of management and evolution of human resources, it is also important to have a management strategy, which should implement all these elements into a single system that will ensure the optimal logistics process of the company and increase its competitiveness in the global market. To argue the impact of human resource management in the logistics systems of the countries of the world, the impact of the global competitiveness index was assessed. The Global Competitiveness Index assesses the ability of countries to provide high levels of well-being for their citizens. Which primarily depends on how effectively the country uses the resources it has. At the same time, to maintain living standards in a free market, as a rule, a constant increase in labor productivity and the quality of goods/services is

necessary. The dynamics of factor indicators (Global index of competitiveness; Index of human development), which have an impact on the management of human resources and logistics systems of companies, is presented in Figure 5.

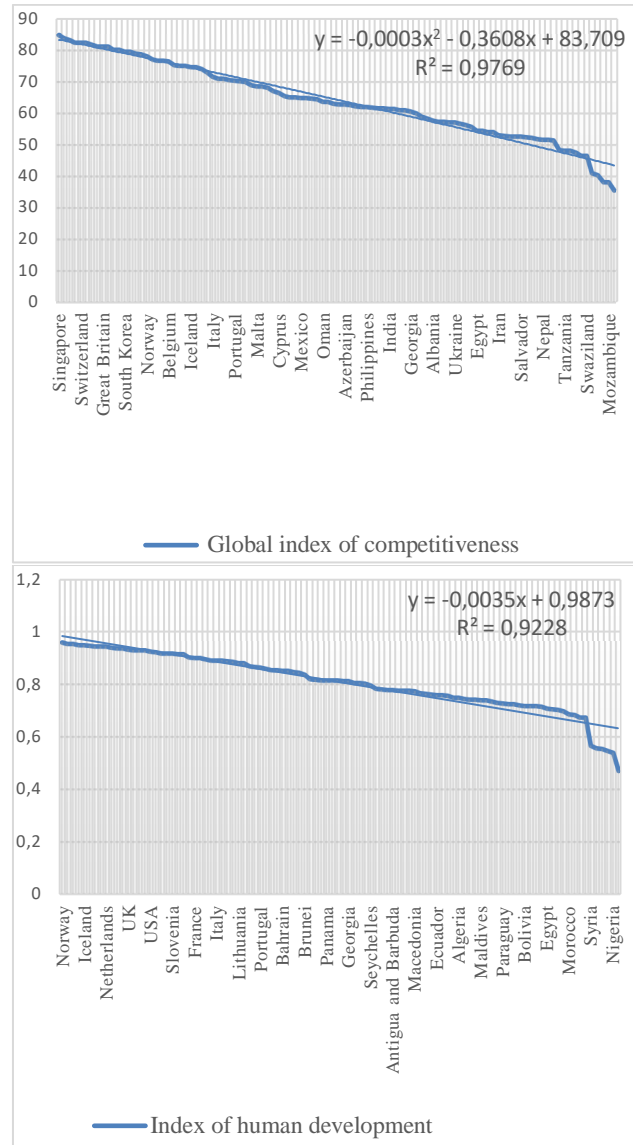


Figure 5 The dynamics of factor indicators (Global index of competitiveness; Index of human development), which have an impact on the management of human resources and logistics systems of companies

The dynamics of factor indicators (Global index of competitiveness; Index of human development) confirm the dependence and interconnection, which is visible on the basis of the statistical analysis. It should be noted that the global index of competitiveness of a country's economy largely depends on the quality of human resources. This quality of a resource is characterized by the level of both socio-economic development and the level of education, competence and learning ability. Undoubtedly, the development of human resources in modern companies and

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countries demonstrates the ability of the economy to ensure the efficiency of processes and phases of production of goods and services, which are reflected in the global competitiveness of the country. As has already been argued, the key and priority direction in ensuring the competitiveness of countries is logistics and the supply chain, which is directly related to human resources, the level of their development and adaptation to new challenges of the global economy. The logistics systems of modern companies are massively influenced by various factors and indicators at the global level, which have their role in the global economy. It should be noted that the effectiveness of modern business, as previously justified, cannot be imagined without resources, especially human

resources, which are the main source of influence on companies in achieving their goals, objectives and plans. Based on this, within the framework of the argumentation of key aspects of human resource management in the logistics systems of companies, the use of multifactor correlation analysis is justified, during which performance indicators are determined (ABI and its structural indicators) and factor indicators that have their influence and interrelation (global competitiveness and human development index).

The main results of multivariate regression analysis of key aspects of human resources management in the logistics systems of countries around the world are presented in Table 3.

*Table 3 The main results of multivariate regression analysis of key aspects of human resources management in the logistics systems of countries*

PERFORMANCE INDICATORS $Y_n$	FACTORS OF INFLUENCE AND INTERRELATIONSHIPS $X_n$		RELIABILITY OF THE RELATIONSHIP $R^2$	PECULIARITIES OF INFLUENCE
	GLOBAL INDEX OF COMPETITIVENESS	INDEX OF HUMAN DEVELOPMENT		
LOGISTIC PERFORMANCE INDEX	0.045	0.578	0.923	Significant level of influence and dependence
CUSTOMS	0.521	0.345	0.045	Low level of influence and dependence
INFRASTRUCTURE	0.231	0.890	0.654	Moderate level of influence and dependence
INTERNATIONAL SHIPMENTS	0.692	0.987	0.041	Low level of influence and dependence
LOGISTICS COMPETENCE	0.745	0.924	0.035	Low level of influence and dependence
TRACKING & TRACING	0.045	0.567	0.893	Significant level of influence and dependence
TIMELINESS	0.045	0.001	0.941	Significant level of influence and dependence

The main results of a multifactor regression analysis of key aspects of human resources management in the logistics systems of countries around the world confirmed the previously formed theoretical assumptions and hypotheses. A strong level of interconnection and dependence is observed between logistics performance indicators: tracking logistics and delivery time, which are confirmed by determination coefficients. This is because all these indicators and business processes are based on human resources, which affects the efficiency and effectiveness of these areas. Changing one of the presented indicators will have a mirror effect on logistics performance indicators. Important dependencies and relationships are changes in the logistics infrastructure, which is directly related to the competitiveness of the company and can affect the process of organizing the process of managing human resources. Arguing the presented research results, it should be noted that human resource management in the logistics systems of companies should be a single whole, which is aimed at the

implementation of business strategies, its growth and efficiency.

**4 Conclusions**

It is determined that strategic management of modern companies cannot be imagined without an effective system of human resources and logistics management, which complement each other and create a single system for achieving key business goals and objectives. It is substantiated that effective functioning of modern companies cannot be imagined without human resources and a logistics system that ensures the life cycle of production of goods and services. Theoretical prerequisites are formed that provide a justification for the economic features of logistics systems of modern companies. The resources of modern logistics systems of companies are structured, which made it possible to determine practical recommendations for their rational use. For the first time, a classification of human resources depending on their characteristics and type of implementation in the logistics

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system has been developed. Theoretical and scientific-practical aspects of determining the influence and relationship of the economic characteristics of the logistics activities of companies on the competitiveness and level of human resources development have been developed. The tools of multifactor correlation analysis are used, which made it possible to determine the strategic aspects of human resource management in the logistics systems of modern companies. The key trends in human resource management in logistics systems are identified, the relationship and interdependence of logistics, human resource management efficiency and competitiveness are substantiated. Formed theoretical prerequisites for strategic human resource management in logistics systems of modern companies, which have their own value and significance, are developed. The results of the study can be applied in building a strategy and long-term plans for the company's development in key areas: logistics, human resources and competitiveness.

**References**

- [1] EVANGELISTA, P., Kianto, A., HUSSINKI, H., VANHALA, M., NISULA, A.M.: Knowledge-based human resource management, logistics capability, and organizational performance in small Finnish logistics service providers, *Logistics*, Vol. 7, No. 1, 12. pp. 1-21, 2023. <https://doi.org/10.3390/logistics7010012>
- [2] AGUSTIAN, K., POHAN, A., ZEN, A., WIWIN, W., MALIK, A.J.: Human resource management strategies in achieving competitive advantage in business administration, *Journal of Contemporary Administration and Management (ADMAN)*, Vol. 1, No. 2, pp. 108-117, 2023. <https://doi.org/10.61100/adman.v1i2.53>
- [3] OGEDENGBE, D.E., OLATOYE, F.O., OLADAPO, J.O., NWANKWO, E.E., SOYOMBO, O.T., SCHOLASTICA, U.C.: Strategic HRM in the logistics and shipping sector: Challenges and opportunities, *International Journal of Science and Research Archive*, Vol. 11, No. 1, pp. 2000-2011, 2024. <https://doi.org/10.30574/ijrsra.2024.11.1.0269>
- [4] SUSANTO, P.C., SOEHADITAMA, J.P., FEBRIAN, W.D., SETIADI, B., PRAMUKTY, R.: Analysis of Work-Life Balance and Resilience: For Support Employee Performance in Logistics Company, *International Journal of Integrative Sciences*, Vol. 2, No. 5, pp. 523-542, 2023. <https://doi.org/10.55927/ijis.v2i5.4186>
- [5] NGUYEN, H.P.: Human resource management of logistics in Vietnam: Status and policy solutions, *International Journal of Innovation, Creativity and Chang*, Vol. 11, No. 3, pp. 569-583, 2020.
- [6] KAM, B.H., TSAHURIDU, E.E., DING, M.J.: Does human resource management contribute to the development of logistics and supply chain capabilities? An empirical study of logistics service providers in China, *Research and Practice in Human Resource Management*, Vol. 18, No. 2, 2024.
- [7] AL-MINHAS, U., NDUBISI, N.O., BARRANE, F.Z.: Corporate environmental management: A review and integration of green human resource management and green logistics, *Management of Environmental Quality: An International Journal*, Vol. 31, No. 2, pp. 431-450, 2020. <https://doi.org/10.1108/MEQ-07-2019-0161>
- [8] MOHAMMED, N., FALABI, O., OKAFOR, U., AHMED, I., BALA, M., MUONEMEH, F., ANUKWU, I., ONUEGBU, K., OKEKE, A., WANNANG, N.: Logistics and supply chain management: human resource capacity and training needs assessment of pharmacists in Nigeria, *International Journal of Pharmacy and Pharmaceutical Sciences*, Vol. 16, No. 1, pp. 18-21, 2024. <https://dx.doi.org/10.22159/ijpps.2024v16i1.49568>
- [9] GEETHANJALI, N., ASHIFA, K.M., RAINA, A., PATIL, J., BYLOPPILLY, R., RAJEST, S.: *Application of strategic human resource management models for organizational performance*, In: S. Singh, S. Rajest, S. Hadoussa, A. Obaid, R. Regin (Eds.), *Data-Driven Decision Making for Long-Term Business Success*, pp. 1-19, IGI Global Scientific Publishing, <https://doi.org/10.4018/979-8-3693-2193-5.ch001>
- [10] AL-ABABNEH, H.A.: Marketing and logistics: features of functioning during the pandemic, *Acta logistica*, Vol. 8, No. 2, pp. 175-187, 2021. <https://doi.org/10.22306/al.v8i2.221>
- [11] ABIDOVNA, A.S.: Personnel management and human resource management: history of origin, essence and relationship of concepts, *Gospodarka i Innowacje*, Vol. 46, pp. 336-343, 2024.
- [12] OGEDENGBE, D.E., OLATOYE, F.O., OLADAPO, J.O., NWANKWO, E.E., SOYOMBO, O.T., SCHOLASTICA, U.C.: Strategic HRM in the logistics and shipping sector: Challenges and opportunities, *International Journal of Science and Research Archive*, Vol. 11, No. 1, pp. 2000-2011, 2024. <https://doi.org/10.30574/ijrsra.2024.11.1.0269>
- [13] CARBERY, R., CROSS, C.: *Human resource management*, Bloomsbury Publishing, 2024.
- [14] MOHAMMAD SAIF, A.N., ISLAM, M.A.: Blockchain in human resource management: a systematic review and bibliometric analysis, *Technology Analysis & Strategic Management*, Vol. 36, No. 4, pp. 635-650, 2024. <https://doi.org/10.1080/09537325.2022.2049226>
- [15] PRUNET, T., ABSI, N., BORODIN, V., CATTARUZZA, D.: Optimization of human-aware logistics and manufacturing systems: A comprehensive review of modeling approaches and applications, *EURO Journal on Transportation and Logistics*, Vol. 13, 100136, pp. 1-34, 2024. <https://doi.org/10.1016/j.ejtl.2024.100136>

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- [16] HANUS, P., KASPEREK, M.: Cooperation of enterprises in the sphere of human resources in logistics, *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, Vol. 63, No. 9, pp. 141-151, 2019.
- [17] ZHANG, J., CHEN, Z.: Exploring human resource management digital transformation in the digital age, *Journal of the Knowledge Economy*, Vol. 15, No. 1, pp. 1482-1498, 2024.  
<https://doi.org/10.1007/s13132-023-01214-y>
- [18] PUROHIT, P., AITHAL, P.S., KUMAR, A.: Human Resource Management Strategies for Implementing a Green Supply Chain Inventory Model with Storage Optimization Using Genetic Algorithms in The Mining Industry, *International journal of progressive research in engineering management and science (IJPREMS)*, Vol. 4, No. 6, pp. 1661-1672, 2024.  
<https://doi.org/10.58257/IJPREMS35079>
- [19] KMECOVÁ, I., ANDRONICEANU, A.: Level of investments in human capital in SMEs as a means of further development and increased competitiveness, *Journal of Competitiveness*, Vol. 16, No. 1, pp. 79-95, 2024.  
<https://doi.org/10.7441/joc.2024.01.05>
- [20] TSAI, S.B., WANG, K.: Using a novel method to evaluate the performance of human resources in green logistics enterprises, *Ecological Chemistry and Engineering S*, Vol. 26, No. 4, pp. 629-640, 2019.  
<https://www.doi.org/10.1515/eces-2019-0045>
- [21] NAWAZ, N., ARUNACHALAM, H., PATHI, B.K., GAJENDERAN, V.: The adoption of artificial intelligence in human resources management practices, *International Journal of Information Management Data Insights*, Vol. 4, No. 1, 100208, pp. 1-11, 2024.  
<https://doi.org/10.1016/j.ijime.2023.100208>
- [22] ZHANG, J., CHEN, Z.: Exploring human resource management digital transformation in the digital age, *Journal of the Knowledge Economy*, Vol. 15, No. 1, pp. 1482-1498, 2024.  
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