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(м. Херсон / м. Кропивницький)**THE MECHANISM OF USING ARTIFICIAL INTELLIGENCE TECHNOLOGIES  
IN THE PROCESSES OF MOTIVATION OF THE COMPANY'S EMPLOYEES****МЕХАНІЗМ ВИКОРИСТАННЯ ТЕХНОЛОГІЙ ШТУЧНОГО ІНТЕЛЕКТУ  
У ПРОЦЕСАХ МОТИВАЦІЇ СПІВРОБІТНИКІВ ПІДПРИЄМСТВА**

*Modern organizations face unprecedented challenges in attracting, retaining, and motivating employees in a dynamic business environment. In this regard, the study of the use of artificial intelligence technologies in the field of employee motivation is of particular interest and relevance. This research article is devoted to the study of the possibilities and prospects of using artificial intelligence technologies in employee motivation. It is aimed at unlocking the potential of artificial intelligence to create effective and innovative strategies for staff motivation, as well as at analyzing the benefits and challenges associated with the introduction of such technologies in enterprise management. The article discusses the main aspects of the use of artificial intelligence technologies in employee motivation, analyzes the current state of research in this area of science, and provides recommendations for the practical application of the results obtained. The work is aimed at developing innovative approaches to HR management and increasing interest in the use of artificial intelligence in the business environment.*

**Keywords:** artificial intelligence, employee motivation, personnel management, personalization of motivational strategies, innovative technologies, productivity, emotional environment, personalized training programs, automation.

Сучасні організації зіштовхуються з безпрецедентними викликами у залученні, утриманні та мотивації співробітників в умовах динамічного бізнес-середовища. Залучення та утримання активного й талановитого персоналу стає ключовим фактором успіху для багатьох компаній, а ефективна мотивація співробітників визнається одним з найважливіших засобів досягнення високої продуктивності та задоволення роботою. У зв'язку з цим, дослідження використання технологій штучного інтелекту в сфері мотивації співробітників набуває особливого інтересу та актуальності. Технології штучного інтелекту надають компаніям можливість автоматизувати рутинні процеси, аналізувати великі обсяги даних та створювати персоналізовані підходи до управління персоналом. У цьому контексті, використання штучного інтелекту для мотивації співробітників може виявитися ключовим фактором для досягнення конкурентної переваги та збереження високої ефективності в організації. Ця наукова стаття присвячена дослідженню можливостей та перспектив використання технологій штучного інтелекту у мотивації співробітників. Вона спрямована на розкриття потенціалу штучного інтелекту для створення ефективних та інноваційних стратегій мотивації персоналу, а також на аналіз переваг та викликів, пов'язаних із впровадженням таких технологій у менеджмент підприємства. У статті розглянуто основні аспекти використання технологій штучного інтелекту в мотивації співробітників, проведено аналіз поточного стану досліджень у цій галузі науки, а також надано рекомендації для практичного застосування отриманих результатів. Робота спрямована на розвиток інноваційних підходів до управління персоналом та підвищення інтересу до використання штучного інтелекту в бізнес-середовищі.

**Ключові слова:** штучний інтелект, мотивація співробітників, управління персоналом, персоналізація мотиваційних стратегій, інноваційні технології, продуктивність, емоційне середовище, персоналізовані навчальні програми, автоматизація.

**Formulation of the problem.** In today's ever-changing business world, the ability to attract, retain, and motivate staff is a key factor for companies' success. In light of this, there is a need to look for new technological solutions that will help companies optimize their HR processes and increase team efficiency. One of the promising technologies that can be actively used in these processes is artificial intelligence (AI), which is now increasingly being implemented in the field of human resource management.

Artificial intelligence technologies allow companies to automate a number of routine and mechanical tasks, freeing up employees' time and energy to perform intellectually complex, human-centered, and creative tasks. At the same time, the use of AI, with its personalization algorithms, can be particularly effective in the area of staff motivation.

The relevance of the article is stipulated by the need to study the possibilities of artificial intelligence technologies in management, in particular, in employee motivation. The study of the use of AI technologies in the field of employee motivation is relevant and important for two reasons: first, according to the latest trends in the labor market, increasing the level of employee motivation is becoming a priority for many companies; second, the rapid development of AI technologies opens up wide opportunities for their application in solving this problem, but at the same time it creates new challenges that require detailed study and analysis.

**Analysis of recent research and publications.** Today, both scientists and practitioners from around the world are actively engaged in the implementation of artificial intelligence technologies in various areas of production, including management. Among the foreign researchers: Richard E. Boyatzis, Sean A. Gould, Edward L. Decky, and Richard S. Greener, among others. Ukrainian scientists are also actively researching the use of artificial intelligence technologies in management: O. Vyshnevskiy specializes in research in the field of human resource management and organizational behavior, in particular, he studies the issues of staff motivation and the use of artificial intelligence technologies in this context [8]; I. Redko studies the effectiveness of using various human resource management technologies, including artificial intelligence [10]; O. Aslanian and N. Ovsienko study the features of successful implementation of AI in the processes of innovation and optimization at enterprises [1]; N. Kmet and Y. Zintso study the implementation of artificial intelligence in the development of personnel management systems [4].

**Formulation of the purpose of the article.** The purpose of the article is to reveal the potential of AI for creating innovative and effective strategies for staff motivation, and to identify the main advantages and challenges arising from the introduction of such technologies into management practice. Achieving this goal involves a number of tasks:

- considering modern methods and approaches to personnel management;
- studying the capabilities of AI technologies in staff motivation;
- analyzing the benefits and challenges of using AI in employee motivation: determining the benefits of automating and personalizing motivation processes using artificial intelligence;
- developing of recommendations for the practical application of artificial intelligence technologies in the process of motivating the company's staff.

**Presentation of the main material.** Modern human resources management in Ukraine is characterized by a shift away from traditional management methods. Analyzing the areas of business that are currently actively developing and growing, we can distinguish a number of approaches based on a personalized approach to employees and the introduction of information systems into the production process. Today, the most common methods of staff motivation include flexible work schedules, emotional intelligence in leadership, development of a supportive culture, skills development and training, risk management and team diversification, and automation and analytics of HR management (this method involves the use of information technology to analyze data on work productivity, employee satisfaction, and other aspects of management to help management make informed decisions).

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These approaches help companies to effectively manage personnel and succeed in a competitive business environment, but by enriching and enhancing them with AI technologies, it is possible to develop more advanced and productive systems for managing and motivating staff. What we mean by AI: “Artificial intelligence is a function of artificial consciousness represented by a system of algorithms created and controlled by it, providing self-learning in accordance with available information, acquired knowledge, rules, laws of society and its experience, creating new knowledge on this basis to fulfill human instructions, as well as the ability to conduct self-diagnosis and justify decisions made by it” [4; 9].

Let's briefly consider and characterize the possibilities of artificial intelligence technologies in management and in staff motivation in particular.

Artificial intelligence can analyze data on the performance of each employee and provide personalized feedback. For example, it can point out achievements and provide advice on how to improve certain aspects of a production task. AI can automatically analyze each employee's productivity data, including results, time spent on tasks, and quality of work performed. Based on this data, personalized reports can be generated for each employee with recommendations on their strengths and weaknesses. These recommendations can be related to both professional development and productivity improvement.

Another function that AI can perform is customizing performance metrics: AI can help set up personalized performance metrics for each employee according to their role, tasks, and goals. This allows employees to better understand how their actions affect the results and how they can improve their performance.

In order to improve performance, AI can, based on an analysis of each employee's skills and abilities, help create individualized training plans that take into account the specific needs and goals of each employee. This process can have several stages: at the first stage, AI can analyze information about an employee's skills and knowledge, including assessment results, peer feedback, and other sources, to determine their strengths, weaknesses, and individual training needs. Based on this assessment, AI can develop a personalized training plan for each employee (the plan can include specific courses, training materials, exercises, and tasks to improve weaknesses).

At the next stage, AI can analyze the results of tests, assignments, and other assessments to adapt the learning material and offer additional resources or tasks where needed.

After adjusting the curriculum, artificial intelligence can track each employee's progress in training again and provide reports and recommendations for further development. This allows both employees and management to receive feedback on their success and opportunities for improvement.

Personalized learning programs can be made available on a variety of platforms, including websites, mobile apps, and learning management systems, allowing employees to access learning material anytime, anywhere. In general, personalized training programs developed using artificial intelligence allow you to optimize the learning process, providing an individual approach to the development of each employee.

At the last stage, artificial intelligence can detect the achievements and successes of employees and automatically send notifications of rewards and recognition for their work. It is worth noting that many modern companies using innovation management approaches use artificial intelligence technologies to train their employees and future employees. For example, Genesis, a Ukrainian co-founding IT company that builds global technology businesses together with the best European entrepreneurs, uses the Strum multimedia online platform equipped with artificial intelligence technologies to train both future and current employees [11]. Most of these platforms, in addition to being multi-platform and multimedia, use a gamification approach – using game elements and mechanics to encourage and motivate people to achieve goals and improve performance. AI can reproduce these mechanics and create personalized gaming experiences for each employee. AI can create

personalized games or simulations that help employees learn new skills or solve problems in a playful way. This can make the learning process more engaging and effective, and the use of AI-powered gamification can create a stimulating and engaging environment that helps to increase employee motivation and engagement.

The next AI technology is the ability to analyze employee emotions. AI can analyze textual data contained in messages, emails, and other sources to understand the mood of employees. Emotion analysis using artificial intelligence involves processing text data to determine the emotional state or mood of the person who created it. It can be a useful tool in HR management to identify and respond to the emotional state of employees. This process can have several stages: sentiment analysis, detection of fatigue, recognition of emotional expressions, and personalized response (artificial intelligence can provide personalized recommendations and responses to the employee) [7]. Artificial intelligence can analyze the emotional state of employees over time to identify trends and patterns that may indicate the overall emotional climate in the organization. Based on this data, strategic decisions can be made to improve the emotional state of staff [2].

In general, emotion analysis using artificial intelligence can help managers manage the emotional aspects of the work process and maintain psychological comfort and atmosphere in the enterprise.

The next AI technology could be its ability to automate routine work (it can automate routine tasks, freeing up employees' time and energy to perform more interesting and creative tasks, which can improve emotional well-being and increase employee motivation).

AI can be used to automate routine tasks at various levels, ranging from mundane administrative tasks to complex data management processes, including: automated email processing (by classifying, sorting, and responding to standard queries); document management (AI can automatically determine the importance of emails, categorize them, and send responses to predefined queries. For example, it can automatically determine the importance of emails, categorize them, and send responses to queries using predefined templates); document management (AI can scan and classify documents, automatically identify key information, and extract it for further processing); automated statements (AI can create automated statements and reports based on accumulated data. For example, it can analyze financial data and generate financial reports without the need to manually enter and analyze data); chatbots for customer support: (artificial intelligence can be used to create chatbots that automatically respond to customer requests, providing information or solving problems without the participation of live operators – this mechanism is already actively used by enterprises, and is already available for use even by managers); automated order processing (artificial intelligence can automate the processing of the order status for customers) [1; 3; 4].

Automation of complex but routine production processes helps free up employees' time and energy, which they can spend on more valuable tasks in terms of human capital. Such as strategic planning, creative projects, and customer interaction. This can increase employee motivation, as they will see more value and results from their work and will be able to focus on tasks that truly require human attention and reflection.

**Conclusions.** Based on the above findings and analysis of the results, several key conclusions can be drawn: the use of artificial intelligence allows creating individual approaches to staff motivation, taking into account their unique needs, skills, and development prospects; it will help improve the effectiveness of motivational programs and make them more adaptive to changes in the organizational environment; the use of artificial intelligence to analyze text data allows understanding the emotional state of staff and taking appropriate measures to improve it. This can help to increase staff motivation through continuous self-improvement and development of professional competencies); introducing automation and efficiency in task management using artificial intelligence can reduce stress and workload

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on employees, which in turn can have a positive impact on their overall job satisfaction and emotional well-being.

Given these aspects, we can conclude that the use of artificial intelligence technologies in employee motivation has significant potential to increase the efficiency and effectiveness of an organization's operations, as well as to provide a more favorable and satisfactory working environment for all employees, which in turn will help increase the company's resilience to various negative market factors and enhance its competitiveness and development.

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