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**MAIN VECTORS OF BUSINESS PROCESS
OPTIMIZATION MANAGEMENT IN THE SECURITY SPHERE:
CHANGING SEO TRENDS BASED ON AI 2025****ОСНОВНІ ПІДХОДИ УПРАВЛІННЯ ОПТИМІЗАЦІЇ
БІЗНЕС-ПРОЦЕСАМИ В СФЕРІ БЕЗПЕКИ:
ЗМІНА ТРЕНДІВ SEO НА ОСНОВІ ШІ 2025**

Summary. The article is devoted to the topical issues of artificial intelligence (AI) technology for managing the optimization of business processes under the influence of changing SEO trends in 2025, which is important and requires the identification of the main vectors of their further development for implementation in the work of the business. In the modern world, where information has a dynamic development and becomes a digital asset, the use of AI plays a significant role for managers and clients, which determines the development of the functional intelligence of the future management network. The research consists of analyzing the main approaches in the context of business process management regarding their optimization in the field of security, taking into account the changing trends of SEO in 2025 using AI, which will contribute to increasing the efficiency of business decisions. The main trends of AI influence on the development of SEO optimization in website promotion in 2025, which has a positive impact on business development and the effectiveness of indicators, are summarized. The vectors of management efficiency through the impact of AI technology on the optimization of business processes in the field of security services, which will contribute to timely response to the challenges and risks of the modern competitive environment, are determined. In conclusion, it is emphasized that for improving the management of business processes regarding their optimization, it is necessary to use AI, in particular in the field of security, taking into account SEO trends in 2025, through the analysis of current processes, identifying priority goals of business process optimization, improving existing processes and developing new ones taking into account the use of modern technologies and monitoring business results by implementing changes in order to adjust them. These vectors contribute to the optimization of business processes in the field of security, but there is a need to take into account the cost of AI implementation and training of security guards who have to work with AI technology and understand how to interpret the data obtained. An important challenge is the solution of an ethical issue that concerns the confidentiality and protection of personal data of clients. It has been found that AI has significant potential for optimizing business processes in the field of security regarding increasing management efficiency, improving the quality of service, which will lead to business performance. The vector of further research lies in the wide application of AI in management, which will bring the business to a qualitatively new level of management, defining the development of the functional intelligence of the future management network.

Keywords: business processes, artificial intelligence, technologies, management, SEO trends, security business.

Анотація. Стаття присвячена актуальним питанням технології штучного інтелекту (ШІ) для управління оптимізації бізнес-процесів в умовах впливу зміни трендів SEO 2025 року, що є важливим та потребує визначення основних векторів подальшого їх розвитку для впровадження в роботі бізнесу. В сучасному світі де інформація має динамічний розвиток та стає цифровим активом і застосування ШІ відіграє значну роль для менеджерів і клієнтів, що визначає розвиток функціонального інтелекту майбутньої мережі управління. Дослідження полягає в аналізі основних підходів в контексті управління бізнес-процесів щодо їх оптимізації в сфері безпеки з урахуванням зміни трендів SEO 2025 року з використанням ШІ, що сприятиме підвищенню ефективності рішень бізнесу. Узагальнено основні тренди впливу AI щодо розвитку SEO-оптимізації в просуванні сайтів 2025, що має позитивний вплив на розвиток бізнесу та результативність показників. Визначено вектори ефективності управління через вплив ШІ технології на оптимізацію бізнес-процесів в сфері надання охоронних послуг, що сприятиме своєчасному реагуванню на виклики та ризики конкурентного середовища сучасності. У висновку наголошено: для вдосконалення управління бізнес процесами щодо їх

оптимізації необхідно застосовувати ШІ, зокрема в сфері безпеки з урахуванням трендів SEO 2025 через аналіз поточних процесів, виокремлення пріоритетних цілей оптимізації бізнес процесів, вдосконалення існуючих процесів та розробка нових з урахуванням використання сучасних технологій та контроль результатів бізнесу за рахунок впровадження змін з метою їх коригування. Зазначені вектори сприяють оптимізації бізнес процесів сфери безпеки, однак є потреба врахування вартості впровадження ШІ та навчання охоронців, які мають працювати з ШІ технологією та розуміти, як інтерпретувати отримані дані. Важливим викликом є вирішення етичного питання, що стосується конфіденційності та захисту персональних даних клієнтів. З'ясовано, що ШІ має значний потенціал для оптимізації бізнес-процесів в сфері безпеки щодо підвищення ефективності управління, покращення якості обслуговування, що приведе до результативності бізнесу. Вектор подальших досліджень полягає в широкому застосуванні ШІ в управлінні, що виведе бізнес на якісно новий рівень управління, визначивши розвиток функціонального інтелекту майбутньої мережі управління.

Ключові слова: бізнес процеси, штучний інтелект, технології, управління, тренди SEO, охоронний бізнес.

Problem statement. In the context of active technological development, artificial intelligence (AI) is becoming a priority area for managing the economic development of business, as it is widely used in modern business models. These models are represented by machine learning technologies with the use of AI, which contributes to the efficiency of analysts' work due to the ability to use a large amount of data processed by artificial intelligence in the direction of a given task, which brings management to a new level of business process optimization. It has been found that what an analyst can do in a few weeks, AI can do in a few hours or even minutes. This situation requires all business employees to use basic machine intelligence techniques and understand that the effectiveness of management depends on the task set for AI technology, as this determines the quality of the data received, which is a key aspect for making management decisions.

Analysis of recent research and publications. It has been found that most scientists have conducted research into the concept and essence of artificial intelligence in the context of modern business development. In particular, scientists N. Stezhko and O. Shevchuk paid attention to the study of development trends in the context of business digitalization, identifying the role of artificial intelligence in this process [1]. The author V.A. Fostolovych identified the potential, current trends and prospects for integrating AI into various areas of business activity, revealing the work of artificial intelligence in modern business [2]. As one of the key drivers of the digital transformation of the economy, scientist O.I. Pizhuk considers AI technology [3], however, most scientists focus on modern achievements in the field of artificial neural systems and machine learning regarding their use in management to optimize business processes [4–6]. Scientists, in particular Muzychenko T.O., Skorba O.A., Shevchuk A.A. [7], which identified the advantages of using AI – data processing speed, personalization of offers for customers and automation of business processes [3]. It is important to note that business in its development faces many problems, in particular, an uncertain market environment, risks of loss and limited resources, and therefore the traditional

management model is no longer able to meet the requirements of modernity. This situation requires the use of AI technology, which can process significant amounts of data quickly with high efficiency, which is a revolutionary transformation of business process management in terms of their optimization. It was found that research on the implementation of AI technologies in modern business activities has been considered in the scientific works of many foreign and domestic scientists. However, despite this, there is an unresolved part of the general problem, in particular, the issue of basic management approaches to optimizing business processes in the field of security, taking into account changing SEO trends in 2025 using AI, which requires research.

The purpose of the article. The study consists of analyzing the main approaches in the context of business process management to optimize them in the field of security, taking into account changing SEO trends in 2025 using AI technology, which will increase the effectiveness of business decisions.

Summary of the main research material. It is important that the use of AI technologies in business is becoming a necessity, especially in processes related to marketing and sales or services, where chatbots and virtual assistants for customers are actively used in communications. According to a study by McKinsey specialists [8], 27% of small and medium-sized businesses in the world are already using AI tools to automate processes and it is planned that this figure will increase to 50% by 2030.

Let us graphically consider the frequency of use of AI by type of business in accordance with the 2023 research conducted by McKinsey (Figure 1).

Data from a McKinsey study show that a third of businesses regularly use AI technologies in at least one of their management functions, while 40% plan to increase investments in artificial intelligence in the near future.

The Mastercard SME Index 2024 study [9] found that 75% of businesses use digital tools for sales and customer interaction. Already in 2024, 21% of Ukrainian entrepreneurs will integrate artificial intelligence into their own business, namely for creating marketing strategies, automating

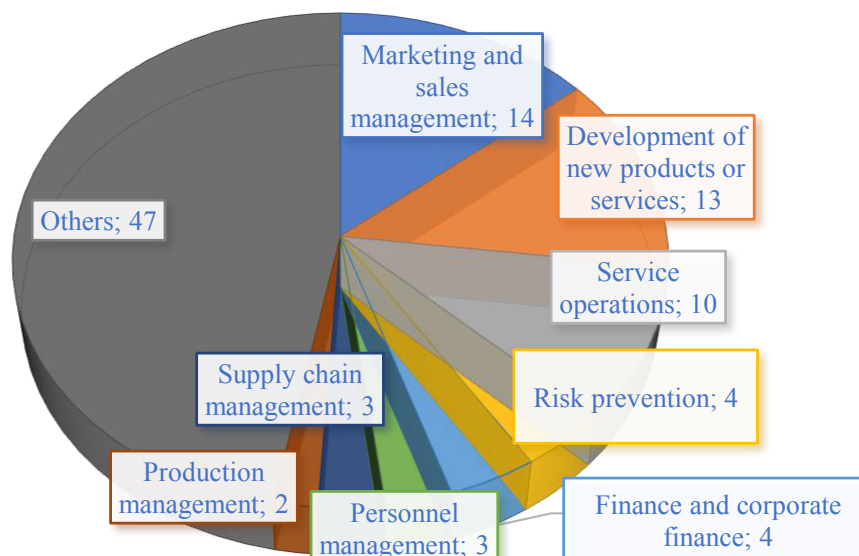


Figure 1 – Use of AI technologies by business type according to research

Source: developed by the author based on research [8]

communications with customers, translations and content. Businesses are actively using digital channels, in particular, 37% of entrepreneurs have created their own websites, 24% operate through marketplaces, and 16% have developed mobile applications [9]. The use of AI allows you to quickly process large amounts of information, which provides businesses with more accurate market forecasts and promotes the effectiveness of decision-making and eliminates errors and miscalculations. That is, AI allows you to solve business tasks and improve the management process based on significant qualitatively analyzed volumes of data. It is important that information in the context of the digital transformation of the economy becomes a digital asset [10] and becomes the basis for managing business processes in terms of their optimization with AI. It is worth noting that in the context of the application of AI, the areas of work of managers change as their functions are partially or fully optimized using AI, which helps to increase their productivity, which contributes to business effectiveness. This situation requires managers to adapt to new conditions and acquire appropriate skills that have a positive impact on business development [11].

It has been established that today, in order to optimize business processes, there is a need to change the competencies of managers, taking into account the rapid transformation of many management functions based on the implementation of AI technology. It is also necessary to explore the potential benefits of implementing AI in the work of managers in terms of performing tasks to make effective decisions. It is important to note that artificial intelligence is a machine that automates the performance of tasks that require human intelligence and is used in various industries, including medicine, finance, and SEO. That is, high-quality professional SEO is a list of

actions aimed at internal and external optimization to increase the position of the site in the search engine through the creation of useful content and other tasks. Let's consider the main trends acquired in 2024 for SEO optimization that help SEO specialists in business development:

- getting acquainted with Gemini as a personal AI assistant based on AI;
- using AI assistants to perform various tasks, such as content analysis, generation of micro-markup and product descriptions;
- adapting content strategy to new trends in SEO;
- continuous training and development as an SEO specialist, which will increase the result in SEO, because AI can replace many professions, including SEO specialists. After all, AI can write content, create websites, accept applications, but it cannot replace a person if he sets the task correctly.

Let's consider the main trends that AI will significantly influence in the development of SEO optimization in the promotion of business websites in 2025 (Figure 2).

It has been established that the development of SEO strategy in 2025 will be based on the adaptation and understanding of the capabilities of AI technology, which has an impact on search algorithms, which will ensure high positions in the search engine for issuing the necessary information and will meet the growing expectations of customers. SEO is an environment that is constantly changing and requires the implementation of new ideas, strategies, tools and will allow you to determine what works best for a particular website and customers. It is important to note that the introduction of digital technologies in all areas of business is becoming an integral part of the management process. This reality confirms the transition to a virtual network space where all

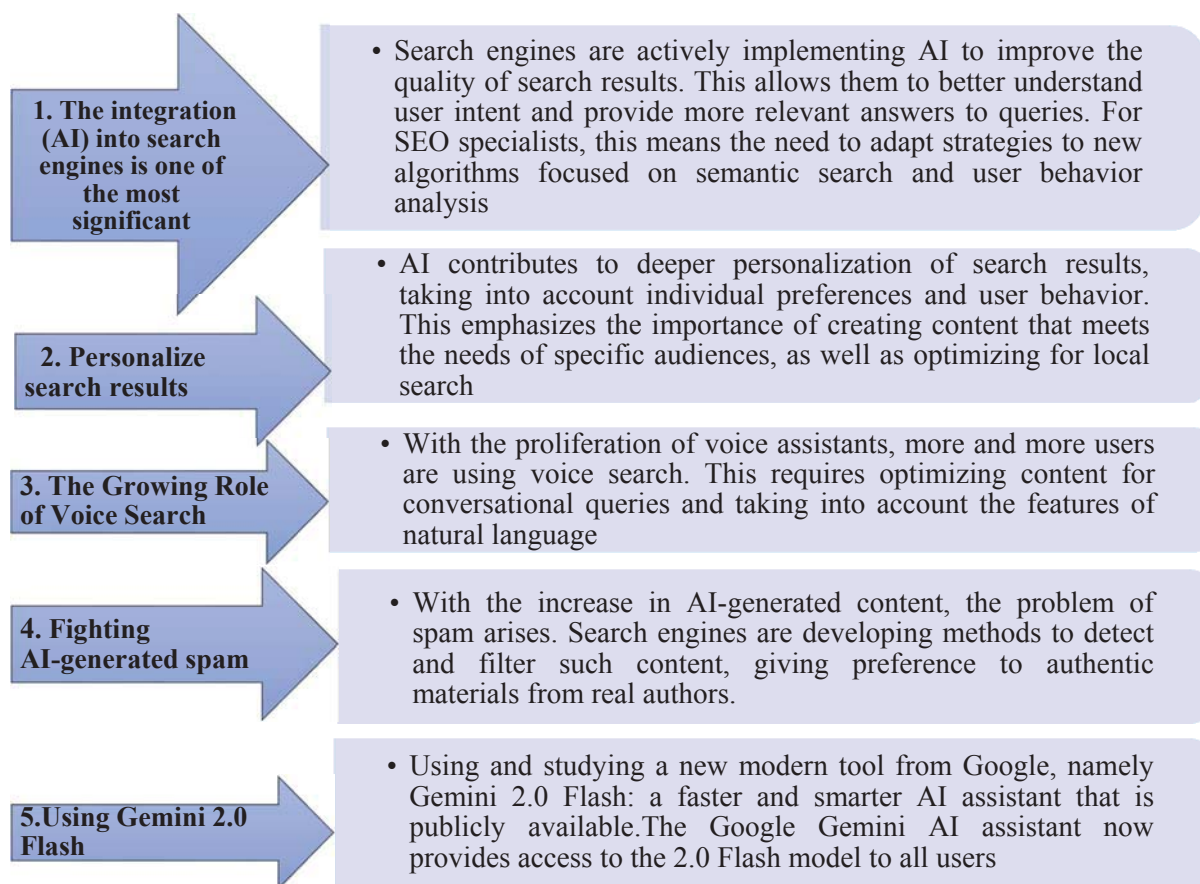


Figure 2 – The main trends of AI influence on the development of SEO optimization in website promotion in 2025

Source: developed by the author based on research [12]

users are involved – the state, business, customers, suppliers, buyers, etc. That is, AI technology provides a digital transformation of the economy, because in the conditions of modern challenges there is a need to improve the objects of labor, cover the shortage of workers and search for alternative options for optimizing business processes. This situation confirms the priority of digital transformation, which will ensure business development by increasing competitive advantages through the use of AI and will contribute to the formation of digital business.

It is worth noting that the implementation of elements of digital transformation in business requires research, in addition to the advantages, also factors that inhibit development [13]. In particular, obstacles to digitalization are the lack of resources, the need to update the network infrastructure, improve the skills of personnel and the interest of management in implementing digital trends. In addition, the growth of the pace of development of digital transformation depends on state policy and the development of legislative and regulatory acts on the protection of digital assets [10].

It has been found that AI technology has significant potential for digital transformation in all industries and is an integral AI assistant and is

called a revolutionary technology that can perform many tasks, including increasing the efficiency of business process management in the security industry through business process optimization. Let us consider the vectors of influence of AI technology on the optimization of business processes in the field of security services, which contributes to efficiency (Figure 3).

It is important to note that successful SEO strategies in 2025 will be based on understanding the capabilities of AI and its impact on search algorithms. Adapting to these changes will ensure high positions in search results and meet growing customer expectations.

Conclusions. It has been established that to optimize business processes in the security sector using AI, it is necessary to use the following management approaches taking into account SEO 2025 trends:

- detailed study of business processes to identify problem areas for improving efficiency through analysis of current processes:

- determination of priority goals for optimizing business processes – reducing costs, reducing task completion time and improving the quality of security services:

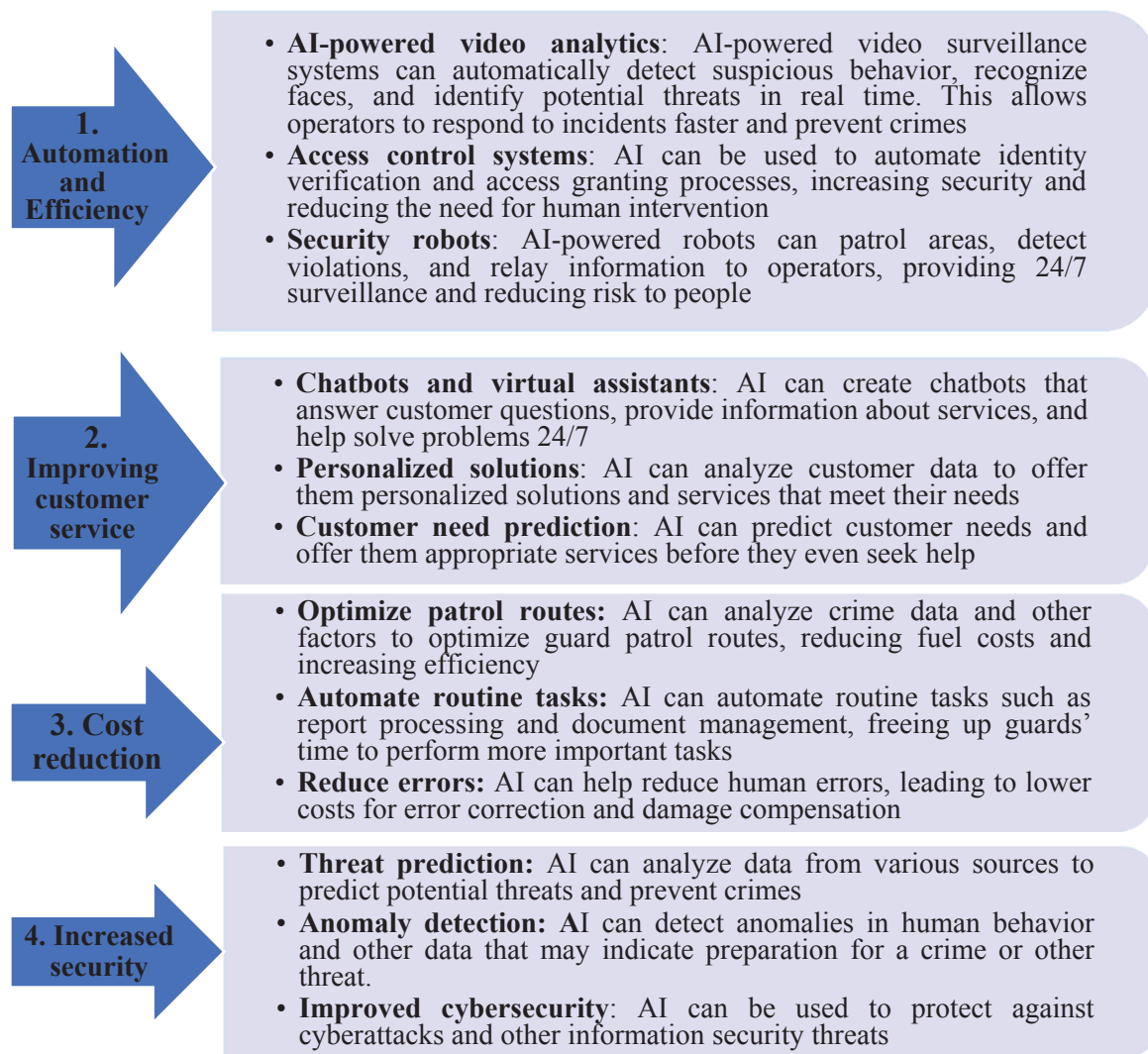


Figure 3 – The main trends of AI influence on the development of SEO optimization in website promotion in 2025

Source: developed by the author based on research [14]

– improvement of existing processes and development of new ones taking into account the use of modern technologies, in particular AI technology.

– implementation of monitoring of business results by implementing changes in order to adjust them based on the results obtained.

The above-mentioned vectors of influence from the introduction of AI technology into the security industry contribute to the optimization of business processes, but require consideration of the cost of implementing

an AI system and the need to train security guards who must work with AI systems and understand how to interpret the data received. An important challenge is to resolve the ethical issue related to the confidentiality and protection of personal data of customers. However, AI has significant potential for optimizing business processes in the security sector in terms of increasing management efficiency, improving service quality and obtaining security, which will contribute to the effectiveness of security.

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