

## **The Impact of Artificial Intelligence on Management Processes**

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### **ABSTRACT**

*This article examines the impact of artificial intelligence (AI) on various aspects of management. The author analyzes how AI can transform decision-making processes, strategic planning, operations, and personnel management.*

*The article discusses the benefits of implementing AI in management systems, such as increasing efficiency, optimizing resources, improving the customer experience, and accelerating innovation.*

*The author also highlights the potential challenges and risks associated with the use of AI in management, such as unemployment, ethical issues, and the need for proper governance and oversight.*

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**Introduction.** The rapid development of the digitalization era pushes the penetration of artificial intelligence technologies into all spheres of human activity, contributing to the improvement of the quality of life of the population. Many experts argue that the level of development of AI technologies in the country is a key indicator of the competitiveness and economic potential of the country in high-tech markets. Tens of thousands of leading companies consider the use of AI technologies in the of their activities, thousands of startups occupy leading positions, making decisions based on artificial intelligence. Thus, the topic of artificial intelligence has turned into a large-scale one, which affects not only IT specialists, but also company heads who keep up with the times. Managers, businessmen, executives, and entrepreneurs are forced to face issues related to the implementation of AI projects, investment evaluation, and also understand the nuances of business based on artificial intelligence.

The widespread introduction of AI in many areas of management, such as logistics, finance, production, marketing, and human resources, emphasizes the need to study the impact of AI on management processes for managers and executives, HR specialists, and government agencies. The potential of AI contributes to improving management efficiency by optimizing management processes, increasing labor productivity, reducing costs, and improving the quality of decision-making.

**Literature review.** A significant contribution in the field of development, implementation and maintenance of a wide variety of information systems and digital products of the corporate level rightfully belongs to Lysachev M., McCarthy J., Turchin A.I. and Nikulina O.V.

**General analysis.** The use of artificial intelligence in the management system acts as a powerful tool for optimizing business processes and improving management efficiency. Modern organizations that operate with large amounts of information can significantly benefit from the introduction of artificial intelligence (AI) algorithms into data analysis processes. AI is able not only to process and systematize complex

amounts of information, but also to identify hidden patterns in them and patterns that may not be noticeable to humans.

Thanks to this ability, AI becomes an effective tool for:

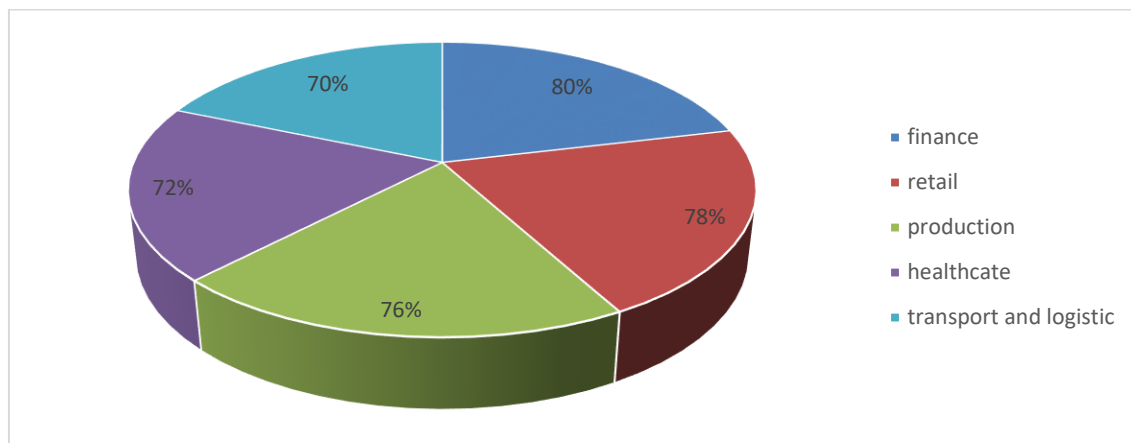
- **Forecasting:** AI can create accurate predictions about future events or metrics using historical data and identified patterns;
- **Decision optimization:** AI is able to generate various decision options with an assessment of their possible consequences, which allows management to make more informed and effective decisions;
- **Risk mitigation:** By analyzing data, AI can help identify potential problems and risks, allowing organizations to take preventive measures and avoid negative consequences;
- **Finding new opportunities:** AI can help you discover new trends and promising business directions, allowing companies to stay ahead of the competition.

Artificial intelligence has great potential for optimizing management processes, as it is a set of technological solutions that imitate human cognitive abilities, and can also learn independently, without the need to program each step, and find solutions without a predetermined algorithm. The results achieved by AI when performing specific tasks are at least not inferior to the results obtained by humans. Key AI capabilities in workflow optimization include:

1. **Automation of routine tasks:** AI has the ability to automate repetitive tasks, including data entry, report processing, correction of time-consuming documentation, freeing up human resources for more complex and creative work. For example, automating the generation of sales reports allows you to improve the accuracy of data, on the basis of which better forecasts are made.
2. **Improve decision-making:** Analyze large amounts of data to identify patterns and trends that people might have missed. This opportunity provided by AI technologies enables companies to make more informed decisions across the spectrum, from pricing and marketing to supply chain management and product development.
3. **Increased productivity:** Streamlined workflows significantly reduce the time it takes to complete tasks and output results, resulting in increased productivity and lower costs. As in logistics companies, for example, AI is used to optimize delivery routes, which allows you to reduce the delivery time of goods and reduce costs.
4. **Improve customer service:** AI is used to create chatbots and virtual assistants that can answer customer questions, resolve issues, and provide 24/7 support. This can lead to increased customer satisfaction and lower customer service costs.
5. **Creating new products and services:** AI is also being used in the development of new products and services that were previously impossible. For example, AI is being used to create self-driving cars, personalized medical treatments, and financial consultations.

The use of artificial intelligence is designed to increase labor productivity. Estimates from major consulting firms such as McKinsey point to the annual positive contribution of generative artificial intelligence to productivity, which is estimated to be in the range of \$2.2 trillion to \$4.4 trillion. PwC also expects positive economic effects from the introduction of artificial intelligence technologies, which could reach \$15.7 trillion by 2030.

According to a recent Statista survey, 81% of respondents among business executives across industries said their companies are already using AI in some form. The level of AI adoption varies by industry.



**Fig1.** The most common use of AI by industry on a global scale.

In 2019, large companies showed outstripping profit growth compared to global GDP. One of the key factors driving the sustainable development of these giants is their active implementation of artificial intelligence (AI) in management processes. Technology companies and international corporations such as Amazon, Walmart, Disney, Facebook, Apple, Bank of America, and others are investing billions of dollars in the development and implementation of AI systems. Their leadership in this area is due to access to significant financial resources. Currently, investment opportunities in the field of AI are limited for small and medium-sized businesses. The participation of representatives of these sectors in AI developments, as a rule, is limited to digital startups funded by venture capital funds.

**Table 1. Tech Giants in the Artificial Intelligence Market**

Company	Investments in development	Investment amount for 2023
Google	TensorFlow; Google AI Platform; Google Assistant; DeepMind.	more than \$20 billion.
Microsoft	Azure AI; Microsoft Cognitive Services; Cortana; GitHub.	more than \$15 billion.
Amazon	Amazon Web Services; Alexa; Amazon Rekognition; Amazon SageMaker;	more than \$12 billion.
Facebook (Meta)	personalization of the news feed; definitions of fake news; targeting ads and developing new products such as Oculus Quest.	more than \$10 billion.
Apple	Siri; Face ID; Animoji; AirPods.	more than \$8 billion.

Modern artificial intelligence technologies are having an increasingly noticeable impact on people's daily lives. However, this impact has both positive and negative aspects. Many authoritative experts who have made a significant contribution to the development of information technologies attach key importance to artificial intelligence in the processes of informatization of society in the future. In Uzbekistan, at the state level, considerable attention is paid to the implementation of the potential of artificial intelligence in

the interests of society. The Digital Uzbekistan – 2030 Strategy pays special attention to ensuring security in the process of the country's digital transformation, as well as transparency, technological sovereignty, integrity of the innovation cycle and reasonable support for competition.

Artificial intelligence is already having a significant impact on the field of management, primarily due to the possibilities of process automation. Some of the AI technologies and tasks applied in management include:

1. RPA (Robotic Process Automation) is software that simulates human actions when working with computer applications. RPA bots can perform routine tasks such as data entry, transaction processing, and sending emails.
2. ML (Machine Learning) is algorithms that allow computers to learn from data and make predictions. Machine learning models can be used to automate decision-making processes, such as demand forecasting or fraud detection.
3. NLP (Natural Language Processing) is a technology that allows computers to understand and generate human language. Natural language processing systems can be used to automate document processing, answer customer questions, and other tasks.

Despite the promising potential of artificial intelligence in streamlining management processes, companies face a number of challenges on their way to adopting AI. The first are ethical issues, such as the bias of AI algorithms based on the biases of their creators, the opacity of AI algorithms, which makes it difficult to understand how they make decisions, and the lack of identification of those responsible for causing harm. Then there are social problems, including unemployment in some industries due to the automation of work processes performed by human resources, manipulation against people and their behavior, with the help of targeted advertising or propaganda. The formation and development of AI in the spheres of human activity has long-term negative consequences, such as dependence on AI and a decrease in human cognitive abilities, social isolation and a change in human values. In addition, 40% of companies are having difficulty finding employees with AI skills, and 33% of companies believe they need to change their business processes to successfully implement AI.

**Conclusion and recommendations.** Implementing AI can be challenging, but the potential benefits are enormous. For successful AI implementation, you must:

- Define your goals: Determine which business processes you want to optimize with AI.
- Choose the right tools: There are many different AI tools out there, so it's important to choose the ones that work best for your specific needs.
- Prepare your data: AI works on data, so it's important to make sure your data is accurate, complete, and up-to-date.
- Invest in training: Your employees will need to learn how to use new AI tools.
- Measure results: Track progress and make adjustments as needed.

AI is a powerful tool that can help companies streamline management processes, increase productivity, and create new products and services. With careful planning and implementation, AI can help companies achieve a competitive advantage.

In addition to the above, it is important to note that AI is still in its early stages of development, and its capabilities are constantly growing. As AI advances, we can expect to see even more innovative ways to use AI to streamline management processes.

#### References:

1. Lysachev M., Prokhorov A. ARTIFICIAL INTELLIGENCE Analysis, trends, world experience. – Corporate edition. –Moscow; Belgorod. 2023
2. McCarthy J. What is artificial intelligence?. - Moscow: BINOM Publishing House, 2021.

3. Nikulina O.V. Artificial intelligence in management: Textbook. - Moscow: Yurayt Publishing House, 2023.
4. Turchin A.I. Artificial intelligence and the future of mankind. - Moscow: AST Publishing House, 2022.
5. Dudikhin V.V., Shevtsova I.V. Smart management - management with the use of artificial intelligence. Series: Economics and Law. - 2022.
6. Kartskhiya A. A. Artificial intelligence as a means of management in the context of global risks. 2020
7. Ustinova O.E. Artificial Intelligence in Management. Creative economy. 2020
8. [https://www.rbc.com/investor-relations/\\_assets-custom/pdf/2023englishproxy.pdf](https://www.rbc.com/investor-relations/_assets-custom/pdf/2023englishproxy.pdf)
9. <https://sovman.ru/articletop/tekhnologii-upravleniya/tsifrovoye-upravleniye/iskusstvennyy-intellekt-v-menedzhmente/>