

Original article

## Artificial Intelligence in the Real Sector of the Economy (on the Example of the Food Industry)

**Alexey V. Aleshkov<sup>1</sup>, Vasily A. Sinyukov<sup>2</sup>, Mikhail V. Ivashkin<sup>3</sup>**<sup>1, 2, 3</sup>The Pacific State University, Khabarovsk, Russia<sup>1</sup> aleshkovalexey@gmail.com, <https://orcid.org/0000-0003-3853-4772><sup>2</sup> v.sinukov@yandex.ru, <https://orcid.org/0000-0001-6266-0088><sup>3</sup> Ivashkin62@mail.ru, <https://orcid.org/0009-0001-5558-4619>

**Abstract.** *The study is based on the hypothesis that the implementation of artificial intelligence into the real sector of economy is inevitable. The authors consider the regulatory framework of artificial intelligence as well as its historical aspects. The basic trajectories of the artificial intelligence implementation on the example of the food industry (modeling and optimizing food technologies, identification, assessing the quality and safety of food products) are indicated. It was noted that the prerequisite for implementation of artificial intelligence technologies in the food industry is a clearly outlined transition from mass nutrition to personalized, associated with the production of mainly combined products of complex ingredient and chemical composition. Applying of artificial intelligence technologies can significantly optimize the resource of time, increase the efficiency and accuracy of purchases, help reduce the cost of purchasing products, eliminate biases in decision-making, and provide the most personalized recommendations for buying goods. The study results include the analysis of Russian and foreign scientists researches in the field of artificial intelligence and its application in the food industry. The research methodology is based on such theoretical methods as comparison, analysis, systematization, deduction, abstraction, and generalization. The article also reveals legal and conceptual aspects of artificial intelligence application, its advantages and possibilities, considers promising areas for further penetration of artificial intelligence in the food industry.*

**Keywords:** *real sector of economy, artificial intelligence, neural network, food industry*

**For citation:** Aleshkov A. V., Sinyukov V. A., Ivashkin M. V. (2024) Artificial Intelligence in the Real Sector of the Economy (on the Example of the Food industry) *Vlast' i upravlenie na Vostoke Rossii* [Power and Administration in the East of Russia], no. 4 (109), pp. 103–113. <https://doi.org/10.22394/1818-4049-2024-109-4-103-113>