

APPLICATION OF ARTIFICIAL INTELLIGENCE METHODS TO MANAGE OPERATIONAL RISKS OF THE ENTERPRISE

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The activities of manufacturing enterprises in the modern world take place in conditions of significant uncertainty, when they are influenced by many external and internal factors, and the level of risk is constantly growing. In such conditions, it is important that businesses understand how to assess the impact of potential risks on their operations and learn how to manage them effectively in order to reduce their impacts. The management of the enterprise needs to be able to identify and take into account risks in time when making decisions. Proper organization of the risk assessment and mitigation process will allow you to quickly adapt the company's activities to the changing conditions around. The use of the latest technologies, such as artificial intelligence, will increase the level of risk management, reduce the percentage of errors, and increase the efficiency of the enterprise.

Smart manufacturing aims to transform the data obtained throughout the product life cycle into production analysis in order to have a positive impact on all aspects of production. All of the above necessitates the study of operational risks in the activities of the enterprise, increases the need to adapt existing methods of risk assessment to the conditions of their practical application at enterprises and the use of artificial intelligence for risk management and optimization. The purpose of the study is to analyze data artificial intelligence methods for managing the operational risks of enterprises and to determine methods for optimizing the management of operational risks of the enterprise.

To achieve the goals of the study, the following tasks were completed:

- analysis of scientific sources on the types and determination of operational risks of the enterprise, management of operational risks of the enterprise;
- collection and processing of statistical, economic and technical information necessary for the optimization of the enterprise;
- analysis and assessment of operational risks of the enterprise;
- determining the possibility of using data artificial intelligence methods to manage the operational risks of the enterprise;

– selection of the most effective methods of artificial data intelligence for managing the operational risks of the enterprise, which will increase the efficiency of the studied enterprise.

Operational risk management is a complex task that uses different approaches. Operational risk summarizes the uncertainty and dangers that a company faces when it tries to carry out its day-to-day business activities in a particular industry. Operational risks can arise as a result of violations of internal procedures caused by people and systems. Such problems contrast with problems caused by external forces, such as political or economic events, or by systematic risks inherent in the entire market or market segment [1]. In the process of research, the following tasks were completed: analyzed the activities of the enterprise, statistical data on the activities of the enterprise and its competitors are analyzed, analyzed the site of the enterprise and its competitors, the existing domestic normative documents and standards are analyzed, the method of comparison and research of categories is used.

Like other risk management tools, the use of artificial intelligence must be constantly evaluated and adjusted. It is extremely important to take into account the changing needs of the enterprise and the possible disadvantages of this technology. For manufacturing enterprises, in the context of a significant increase in competition, it is important to optimize operational risks, because this will increase their competitiveness in the market and increase consumer loyalty. The use of artificial intelligence and, in particular, machine vision and deep learning methods will reduce the involvement of the human factor, thereby reducing not only wage costs, but also the percentage of defective products. The calculations carried out confirm the latest research in the field of artificial intelligence that the future belongs to "smart" enterprises. Reducing operational risks due to the introduction of machine learning systems at the studied enterprise is possible and will pay off in the near future. Thus, the use of data artificial intelligence techniques for operational risk management is appropriate in domestic enterprises.

References

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