

## INTELIGENTA ARTIFICIALA IN CONTABILITATE: OPORTUNITATI SI PROVOCARI

## AI IN ACCOUNTING: OPPORTUNITIES AND CHALLENGES

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**Abstract.** *AI plays an increasingly important role in accounting, opening new opportunities for processing automation, analytics, and forecasting. This helps to increase management efficiency, reduce the risk of human error, optimize the costs of accounting operations, and significantly accelerate the processing of financial documents. The study of the impact of AI in the conditions of martial law in Ukraine is especially relevant, when the need for fast and accurate accounting is critically important. The article conducts a SWOT analysis of the use of AI in accounting of Ukrainian business entities. It highlights strengths, such as process automation and reducing the risk of errors, as well as weaknesses, in particular the high cost of implementation and dependence on digital infrastructure. Opportunities are identified, including the development of Ukrainian IT solutions and international support, and threats, including cybersecurity and economic risks. The research methods include an analysis of scientific sources, a comparative analysis of international experience in using AI in accounting, as well as a systematic approach to determine the impact of AI on financial accounting in Ukraine. The results obtained emphasize the importance of adapting AI to Ukrainian realities, developing strategies for safe implementation, and training personnel for the effective use of new technologies.*

**Keywords:** artificial intelligence, accounting, automation, SWOT analysis, cybersecurity, data privacy.

**JEL:** M41, O33, G32, C63.

**Introduction.**

Artificial intelligence (AI) is becoming an integral part of modern accounting, opening new opportunities for analytics and improving management efficiency. At the same time, the implementation of this technology is accompanied by several challenges. Therefore, the study of the advantages and disadvantages of using AI in accounting is relevant, one that has practical significance.

Research into the possibilities of using AI in accounting is popular, as can be seen from the works [1-5]. However, the dynamics of the development of technologies and economic processes requires the continuation of such research.

The purpose of the work is to analyze the opportunities and challenges of implementing artificial intelligence in accounting of Ukrainian business entities in Ukraine to improve management efficiency.

The research methods include an analysis of scientific sources, a comparative analysis of international experience in using AI in accounting, as well as a systematic approach to determine the impact of AI on financial accounting in Ukraine.

**Basic content.** One of the key advantages of artificial intelligence is the ability to automate routine accounting tasks. The implementation of this technology allows you to significantly reduce the time required to process invoices, create financial statements and manage tax liabilities. Thanks to this, accounting departments can focus on strategic tasks that require an analytical approach. In addition, the human factor is a frequent cause of errors in accounting, and artificial intelligence helps to avoid such problems by ensuring the accuracy of calculations, correctness of reporting and compliance with the deadlines for

submitting documents. Machine learning algorithms allow you to quickly find discrepancies and correct them before submitting official reports.

Artificial intelligence can analyze large volumes of data and predict future financial performance of the enterprise. This makes it possible to make informed management decisions, minimize risks and ensure the financial stability of the business. The use of AI in financial analysis helps to identify hidden trends and respond promptly to changes in the economic environment. It is believed that modern technologies are available only to large corporations, but small businesses can also use AI to improve accounting. Automated financial document processing systems help reduce administrative burden and increase the accuracy of financial transactions. AI can analyze financial transactions and identify suspicious transactions, which helps to increase the financial security of the company. The use of machine learning algorithms allows you to predict changes in cash flows and make more informed decisions about the further development of the business. AI can also analyze financial indicators and generate reports that meet audit standards, and automated systems allow you to generate financial reports and commercial documentation, which simplifies interaction with counterparties.

A specific example of the application of AI in accounting and auditing is the use of the ability of programs to recognize, use templates, and develop their own algorithms based on feedback and refinement. Optical character recognition (OCR) is a branch of artificial intelligence that allows you to convert a scanned image into a digital file, which is important when processing primary documents - bills, invoices, etc. This provides the ability to quickly find the necessary information, save it in a convenient format, display or print data. The main disadvantage of programs using OCR is the limited number of languages available for processing. The introduction of artificial intelligence (AI) into accounting brings significant benefits, but along with these benefits there are certain risks that should be considered. One of the key challenges is cybersecurity and data confidentiality. The integration of AI into accounting processes can increase the vulnerability of systems to cyberattacks, which can lead to the leakage or loss of confidential financial information [6].

Automation of accounting processes can also lead to job losses, since some traditional functions will no longer require human intervention. This raises concerns about possible unemployment among accountants and the need for retraining specialists. In addition, the introduction of AI in accounting is accompanied by several ethical and legal issues. The use of automated systems in financial decision-making raises questions of responsibility and ethics, especially in cases where algorithms make mistakes or make biased decisions. The process of integrating AI is also technically complex and may require significant financial investments. Its implementation requires updating existing accounting systems, adapting business processes and training personnel, which can become a significant barrier for small businesses. In addition, there is a risk of over-reliance on technology. Relying on AI without proper control can lead to a loss of critical thinking among specialists and a decrease in the quality of financial data verification, which in the long term may negatively affect the reliability of accounting reporting. Taking these risks into account is necessary to ensure the safe and effective implementation of AI in accounting. Despite the significant benefits, it is important to carefully monitor its use, develop data protection mechanisms, adhere to ethical standards, and ensure the training of specialists to work with new technologies.

As part of the study, a SWOT analysis of the use of artificial intelligence in accounting of Ukrainian business entities under martial law was conducted, which allowed us to identify:

- 1) Strengths: reducing time for accounting, calculations and financial control by automating routine processes, increasing accuracy by minimizing human errors in data processing, optimizing resources by reducing personnel costs and time for data processing, ensuring uninterrupted operation of accounting in crisis conditions through the use of cloud technologies and remote access, improved financial risk management and planning in conditions of instability by using analytics and forecasting;
- 2) Weaknesses: high cost of implementation in conditions of limited financial capabilities of enterprises during wartime, insufficient qualification of personnel, dependence on digital infrastructure, where failures

due to cyberattacks or damage to telecommunication networks are possible, limited integration with government systems;

3) Opportunities: support by international donors and investors for the digital transformation of accounting in Ukraine, development of state digital platforms, increased cybersecurity through the integration of advanced technologies for the protection of financial information, remote accounting, development of Ukrainian IT products in the field of accounting;

4) Threats: risks of data leakage due to increased cyberattacks during the war, limited opportunities for investing in technology due to the economic crisis, possible difficulties in adapting AI to regulatory requirements, fear of technological changes by accountants, disruptions in power grids and the Internet.

## Conclusions.

Artificial intelligence is playing an increasingly important role in accounting, providing the opportunity to automate routine processes, increase the accuracy of financial transactions and reduce the risk of human errors. The use of machine learning and big data analysis technologies contributes to more effective financial management, improving audit procedures and optimizing business processes.

However, the implementation of AI carries certain challenges, including cybersecurity, the need to adapt personnel to new technologies and the issue of responsibility for decisions made by automated systems. It is important to develop strategies for the safe implementation of AI to maximize its potential and minimize risks.

Considering the results of the SWOT analysis of the use of artificial intelligence in accounting of Ukrainian business entities under martial law will allow using strengths and opportunities, eliminating weaknesses and threats when implementing AI at Ukrainian enterprises and institutions, in the post-war economy.

Thus, artificial intelligence opens new horizons for accounting, ensuring the efficiency and accuracy of financial processes. At the same time, it is necessary to adhere to control measures and consider possible threats so that technologies bring maximum benefit without negative consequences for business and industry specialists. Analysis of specific examples of the implementation of innovative technologies in accounting and auditing of Ukrainian enterprises will be a direction of further research.

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