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Impact of Artificial Intelligence on Organizational Accounting and Control

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Abstract

Currently, the incorporation of artificial intelligence into organizational accounting and control can enhance the efficiency of these functions and data processing. Artificial intelligence speeds up error detection and rectification while reducing disparities in the initial data entry. The accounting teams within the organization exhibit a discernible impact, characterized by a decline in lower-skilled jobs and an emphasis on responsibilities that require extensive knowledge and the implementation of specialized control systems. The emphasis of accounting and control professionals will transition – grounded in financial and accounting data – toward data interpretation and decision-making counsel, as specialised knowledge and abilities are necessary for these functions. The objective of the study is to demonstrate the extent to which artificial intelligence may be utilized in accounting and control within organizations to enhance the execution of these functions.

Keywords: *accounting, control, management, artificial intelligence*

JEL Classification: M4, M2

Introduction

The application of artificial intelligence (AI) in organizational accounting and control is a subject that increasingly attracts attention in scientific research. The major goals are to automate tasks, improve accuracy, and better identify dangers. Other important issues include data security, a bias toward new technology, openness, and rules [Simatupang, 2024; Cao & Zhang, 2025]. The main point of this study is that using AI in accounting and control will improve these tasks, primarily by changing how data is collected and processed. AI saves time by speeding up data entry, finding and fixing mistakes, and ensuring that first-time information is processed. This progress can inspire organizations to innovate and adopt new practices, fostering confidence in AI's transformative potential. The objective of this research is to illustrate the extent to which AI can be employed in organizational accounting and control to improve the effectiveness of these functions. In response to this inquiry, a synthesis of findings from existing studies on the subject is presented, accompanied by concise case studies illustrating the Bulgarian experience in this domain.

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1. Specifics of reporting and control in organisations using artificial intelligence

Artificial intelligence (AI) is a general term for a collection of technologies that assist individuals and businesses in performing tasks and making decisions. Technology and AI are impacting many areas right now, and they are advancing quickly. Business organizations, including small businesses, are trying to use this technology to improve their management practices, but with varying degrees of success.

The growth of AI in business is linked to the gathering, processing, and analysis of data to help managers make decisions at all levels of the company [Papazov & Mihaylova, 2023]. The amount of data that is available is growing quickly right now. The internet and connected devices (i.e., internet of things) make this data much more plentiful and diverse in large databases. It is thought that a business's competitive edge depends more and more on how easy it is to access artificial intelligence, which is expected to be good at processing large amounts of high-quality data. According to a study published in the Harvard Business Review, companies that are good at using AI perform better on key metrics such as efficiency, profitability, market share, and customer satisfaction [Harvard Business Review, 2023]. AI gives businesses the chance to make and use new (products and process) technologies, come up with new ways to market and run their businesses, and take part in focused financial and investment projects.

Nonetheless, AI encompasses more than merely advantages. Numerous obstacles accompany its application, pertaining to the development and execution of business strategies, corporate security, commercial ethics, and human rights, among others [Berente, Gu, Recker & Santhanam, 2021]. Technologies surely offer numerous advantages, but they also present certain challenges. One of these is the swiftly expanding volume of data [Ozkan-Okay et al., 2024]. It is accurate that substantial volumes of information cannot be processed and analysed using current analytical models. The analytical tools and procedures employed in AI necessitate substantial technical resources to handle huge data volumes. Such investments provide a hurdle for firms, particularly for smaller enterprises [Dongre, Pandey, & Gupta, 2020]. In this context, managers responsible for pivotal decisions regarding the implementation of AI in business hold a significant role. They oversee the creation and execution of AI-based systems, utilize them in decision-making, and monitor and modify decisions and procedures accordingly.

AI is a new technology that helps organizations improve their accounting and financial processes. Research shows that more emphasis is placed on the technical aspects of the problem. Interdisciplinary research is infrequent. The last component is important because accounting practices include many different kinds of organized, semi-structured, and unstructured judgments. The usefulness of accounting information depends on its relevance [Sulistiawan & Rudiawarni, 2019]. In control and audit, decisions are made that are not as structured as they could be. The analyses address uncertainty arising from risks and insufficient information [Moudud-Ul-Huq, 2014]. It makes sense that AI works better when decisions are made in a structured way, such as when managing financial records, generating reports based on specific criteria, and aggregating results from multiple values. It can focus on certain operational tasks, like keeping track of company transactions and reporting on how the business is running, to speed up the processing of important data.

Accounting encompasses not only the processing of documents and calculations but also the interpretation, analysis, and evaluation of financial and accounting information. Chief accountants are specifically tasked with making intricate financial decisions and

analysing financial statements, necessitating expert judgment derived from professional skills and experience. Current observations indicate that AI can serve as an effective instrument for formulating and executing predominantly organized decisions in the accounting of corporate organizations, as noted by Borisova (2024):

- invoice processing;
- classification of assets, liabilities, income, and expense items;
- report generation;
- report preparation;
- data extraction based on particular criteria;
- indicator comparison, etc.

This application of AI can aid accountants by freeing up time for analytical tasks and unstructured decision-making, particularly in the formulation of strategic and tactical plans and programs [Mihaylova & Papazov, 2022; Opera, Hoinaru, Pacuraru-Ionescu & Neamtu, 2022]. Accountants can use AI to enhance their tasks and improve the efficiency, precision, and speed of their work. Currently, the goal of AI in accounting is chiefly to assist in decision-making rather than to supplant managerial roles. Senior accounting personnel remain accountable when utilizing technology, even in extensively automated settings [Veysel, 2023]. The objective is to integrate several AI modalities into organizational accounting and use them concurrently with conventional methods for processing and analyzing accounting data.

The incorporation of AI into accounting can enhance efficiency, accuracy, and processing speed of information, minimizing time spent on error correction and reducing discrepancies in primary data entry, thus functioning as a control mechanism. The application of AI in organizational accounting can aid accounting teams by reducing the number of mundane tasks, thereby allowing them to focus on activities that require advanced qualifications and expert judgment. Inquiries have emerged regarding the new prerequisites for the educational and qualification standards of professionals, as AI necessitates integration into the workforce while simultaneously fostering competition in the execution of everyday jobs [Antonova & Ivanova, 2021].

Considering these particulars, accounting researchers examine the advancements of AI. A tendency is emerging towards heightened research in this domain, attributable to the influence of accounting information on strategic management and sustainability. The effectiveness of accounting and internal control systems is crucial for managerial decision-making. It is rational to assert that AI will enhance these systems and optimize their performance.

This publication summarizes many uses of AI in accounting and control, considering the preliminary phase of research. These pertain primarily to the methodologies and technologies utilized for the processing of accounting information and may include [Aspire Systems, 2025]:

- AI in accounting can analyze documents instantaneously, employing natural language processing and computer vision to produce immediate reports. This reporting provides data that may be used for the organization's strategic management and, if required, to implement modifications.
- AI facilitates the processing and automated authorization of documents to enhance internal accounting and control procedures, including public procurement, purchasing, invoicing, purchase orders, expense reports, accounts payable and receivable, and provisions.

- AI solutions facilitate control and ensure compliance with internal and external regulations by monitoring pertinent documents and identifying issues as needed. The utilization of AI facilitates real-time data analysis in auditing. This methodology offers auditors continuous assurance and swift reaction to developing hazards.
- AI facilitates the articulation of assurance on sustainability through the execution of a series of essential and interconnected procedures that underpin an auditor's opinion on reasonable assurance or an auditor's conclusion on limited assurance.
- Machine learning algorithms analyse large datasets, detect potential compliance concerns, and flag them for examination, thereby enhancing control efforts and mitigating organizational risks.

Conventional accounting information systems primarily deal with internal data representing historical events and corporate activities. Currently, comprehensive research and strategic decision-making necessitate information from the external environment, such as relative market share and industry efficiency. This is especially apparent in relation to the execution of an audit engagement aimed at providing reasonable or limited assurance on sustainability, wherein information is disclosed regarding the social, environmental, and economic impacts of the enterprise, as well as the influence of these factors on its development, results, and conditions [IFAASR, 2024]. AI can facilitate the integration of internal and external information for strategic reporting objectives.

The details of reporting and control in organizations utilizing AI outlined here are a minor segment of a proposed comprehensive investigation into the matter. Instead, they seek to highlight how AI might revolutionize accounting procedures and controls by enhancing speed, accuracy, and efficiency. The objective is to employ AI as a supplementary instrument in accounting and control functions. The subsequent paragraph provides instances pertinent to the analyzed specifics.

2. Good practices for the application of AI in accounting and control in organisations

As presented in the previous paragraph, AI can significantly benefit accounting and control in organizations by automating routine tasks and improving the accuracy and efficiency of processes. Good examples of the practical application of AI in business accounting include:

- automation of tax returns – AI can analyze data and produce precise tax returns, minimizing the likelihood of errors and conserving time;
- identification of inaccuracies and irregularities – through the analysis of extensive data sets, AI may find atypical business transactions or patterns indicative of probable inaccuracies or abnormalities;
- cost management – AI can monitor and classify expenditures to enhance organizational budgets and manage costs more efficiently. This significantly aids management accounting.
- internal control and audit – AI may verify accounting records for adherence to regulatory requirements and standards, hence enhancing the control and audit process;
- cash flow forecasting – through the analysis of historical data and contemporary trends, AI can predict cash flows, assisting organizations in optimizing their investment strategies and liquidity management;

- AI can scan and process invoices and other accounting documents, automatically extracting essential information and inputting it into the accounting system;
- financial statement analysis – AI may evaluate financial statements and furnish insights to enhance the business's financial well-being;
- integration with enterprise resource planning (ERP) systems – AI can be incorporated into existing ERP systems to enhance their functionality and provide improved collaboration across various organizational units.

The presented opportunities are utilized in global practice. They are also relevant for Bulgarian enterprises who utilize AI for accounting and control functions. The following are effective practices in this domain.

In Bulgaria, the enterprises offering solutions for the automation and optimisation of accounting processes through AI are both international companies and local start-ups and technology companies that develop specific products for the Bulgarian market. Here are some examples of Bulgarian companies and their solutions:

- *Erp.bg* is a Bulgarian software firm that provides enterprise resource planning solutions aimed at automating and optimizing corporate processes. They employ machine learning and AI technology to enhance commercial processes. *Erp.bg* employs AI for accounting functions, concentrating on domains and applications. Their solutions comprise several modules addressing diverse facets of business, including accounting, human resources, manufacturing, logistics, and sales. The application of AI seeks to enhance the efficiency and precision of these procedures. The new AI module from the Bulgarian software firm *erp.bg* is becoming an essential component of teams at Bulgarian enterprises and can even provide managers with guidance on improved management strategies. It is accessible in version 24 of all its commercial software offerings. The module utilizes ChatGPT and will further incorporate other large language models, integrating their functionalities into the ERP or customer relationship management (CRM) system to enhance contextual knowledge relevant to the company's operations [ERP, 2024].
- *ScaleFocus* is a Bulgarian IT firm that provides a range of services and solutions, including accounting process automation and AI-driven data analysis. Accounting process automation entails creating software solutions to automate repetitive accounting functions, including data entry, invoice validation, and financial statement production. The real-time examination of extensive financial data utilizing this AI accelerates decision-making and enhances management response times [Scalefocus, 2025].
- *Ontotext* specializes on semantic technologies and graph databases applicable to financial data analysis and management. The company provides applications for identifying fraud and anomalies in financial data by analyzing extensive datasets. The company's AI can identify untapped data streams and novel revenue opportunities by analyzing extensive financial data. It facilitates the implementation of predictive models and business decisions derived from this data. Adaptable graph data models and dynamic knowledge structures (ontologies) can be modified to accommodate the volume of amassed information [Ontotext, 2025].
- *Payhawk* is a firm dedicated to corporate cost management, employing AI to automate the processing of expense documents and their integration with enterprise accounting systems. The primary applications in this domain include automating expense documentation, encompassing the extraction of requisite information and its subsequent entry into the accounting and control system, as well as interfacing with prevalent accounting platforms to enhance coordination and data synchronization. The financial control agent is

of particular interest. An AI agent enhances the productivity of the finance and accounting staff by monitoring business spending, including tracking unsubmitted receipts and invoices, analyzing expense reports, and identifying anomalies. The AI assistant communicates reminders to employees to submit their bills and receipts directly to platforms like Slack and Microsoft Teams. The AI agent interacts with employees using clear language, so expediting and enhancing the accuracy of monthly business transaction accounting [Payhawk, 2025].

- *Nula* is a Bulgarian firm that provides an AI business platform. It is an integrated, AI-automated system that encompasses transaction and customer administration, lead tracking, contact management, and sales organization, featuring an intuitive CRM, streamlined billing with invoice tracking, payment alerts, and automated reminders. The technology features automated expenditure processing, using an OCR scanner to extract data from invoices and categorize expenses. Banking is further linked through the linkage of business bank accounts for the disbursement of invoices, taxes, and salaries. The latest generation of accounting software is entirely automated and incorporates AI capabilities, while the integrated inventory management module monitors quantities, transfers across various locations, and identifies shortages or surpluses [Nula, 2025].

The presented companies provide integrated platforms for business solutions, including accounting and control, showcasing diverse applications of AI for accounting, each offering distinct solutions and methodologies tailored to their clients' specific requirements. An examination of these practices indicates a rapidly growing interest in Bulgaria regarding the application of AI in accounting and control, with local organizations progressively engaging in the development and implementation of novel solutions in this domain. Each of the aforementioned organizations employs AI for accounting reasons, concentrating on distinct areas and applications in management. Ultimately, the outcomes are favourable for all user organizations, irrespective of their operational specifics and scale. All procedures comply with the EU AI Act, 2024 (Regulation EU 2024/1689), enacted by the European Union to guarantee the safe and transparent utilization of AI systems in accordance with fundamental human rights, while ensuring that these systems are adapted to varying risk levels.

Conclusion

In a nutshell, despite significant technological advances in artificial intelligence and the increasing automation of administrative tasks, accounting and organizational oversight still require professionals with specialized knowledge, technical competence, and judgment that cannot be fully replaced. While AI can improve efficiency, reduce the time needed for routine processes, and support data-intensive operations, it does not eliminate the need for qualified accounting experts. These professionals remain essential for interpreting complex financial and tax-related information, ensuring compliance with accounting standards and legal regulations, evaluating the implications of financial data, and supporting management in making informed strategic and operational decisions. Moreover, accounting specialists play a critical role in aligning financial practices with broader corporate objectives, particularly in situations that demand professional discretion, contextual understanding, ethical responsibility, and expert judgment. In this context, AI should be viewed as a powerful supporting instrument rather than a substitute for human expertise. It can facilitate operational reporting, process large volumes of data quickly and consistently, integrate information from multiple sources, identify patterns, and provide rapid access to relevant

references. However, the effective use of these capabilities depends on human supervision and validation to ensure that outputs are accurate, contextually appropriate, and consistent with established accounting principles and regulatory norms. Therefore, although AI significantly enhances the efficiency and scope of accounting-related work, the role of accounting professionals remains indispensable in guaranteeing reliability, compliance, and sound decision-making within organizations.

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