Audit Financiar, XXIV, Nr. 1(181)/**2026**, *169-185*
ISSN on-line: 1844-8801

Paper presented at the IXth Congress of the Romanian financial auditor profession

Artificial Intelligence in Financial Auditing: between Procedural Efficiency and Professional Reasoning

Assoc. Prof. Svetlana MIHAILA, Ph.D.,
Academy of Economic Studies of Moldova,
e-mail: svetlana.mihaila@ase.md

Assoc. Prof. Galina BĂDICU, Ph.D.,
Academy of Economic Studies of Moldova,
e-mail: badicu.galina@ase.md

Abstract

The transformation of financial auditing through digitization, big data, and artificial intelligence is one of the most important challenges and opportunities for the contemporary accounting profession. The research aims to investigate how auditors and other professionals in the field of auditing and accounting in Moldova perceive the adoption of these technologies, with a focus on the level of digital skills, anticipated benefits, and barriers associated with implementation. Based on a systematic analysis of the international literature, five research hypotheses were formulated regarding the relationship between digital readiness, familiarity with artificial intelligence tools, perception of the human-technology partnership, ethical barriers, and experience in using AI solutions. The hypotheses were tested through a questionnaire applied to a sample of 63 respondents, including active auditors registered with audit entities, as well as other audit professionals (public auditors, internal auditors, audit trainees, accountants). Data analysis revealed correlations between the theoretically derived variables and the perceptions expressed, leading to the full confirmation of four hypotheses and the partial validation of one. The results showed that, although there is a clear association between digital skills and openness to the use of AI, reservations remain regarding familiarity and full confidence in its added value.

To cite this article:
Mihaila, S., Bădicu, G. (2026), Artificial Intelligence in Financial Auditing: between Procedural Efficiency and Professional Reasoning, Resilience, and Sustainability, *Audit Financiar*, vol. XXIV, no. 1(181)/2026, pp.169-185, DOI: 10.20869/AUDITF/2026/181/004

To link this article:
http://dx.doi.org/10.20869/AUDITF/2026/181/004
Received: 20.08.2025
Revised: 1.09.2025
Accepted: 9.01.2026

The conclusions emphasize that artificial intelligence should be perceived as a complementary tool rather than a substitute for professional judgment, thereby increasing confidence in the quality of the audit. At the same time, the research reveals that ethical risks, lack of algorithmic transparency, and the absence of a robust regulatory framework are major barriers. In this context, the article proposes a set of recommendations focused on continuous training, regulatory strengthening, technical support, and gradual implementation, with a view to the sustainable digitization of financial auditing. Overall, the study provides an integrated view of how AI can transform auditing, confirming both the opportunities and the conditions for effective and responsible adoption.

Key words: *financial audit; artificial intelligence; professional judgment; procedural efficiency; Republic of Moldova; practical recommendations;*

JEL Classification: *M42, M41, O33, C8*

1. Introduction

The accelerated evolution of information technologies and the scale of digital transformation have fundamentally redefined accounting and financial auditing practices (Rodgers et al., 2023). In an interconnected economic environment, characterized by exponential growth in data volume and increased requirements for transparency and accuracy in reporting, artificial intelligence (AI) is emerging as a strategic tool for the contemporary auditor. AI's ability to automate repetitive procedures, process massive transaction flows in real time (Blösser & Weihrauch, 2024), and identify abnormal patterns exceeds the limits of traditional methods and opens up the possibility of innovative approaches to planning and executing audit engagements (Hurducaci & Ionescu, 2024; Leocádio, Malheiro & Reis, 2024; Seethamraju & Hecimovic, 2023). Auditors in the digital age need a more flexible and agile mindset (Seethamraju & Hecimovic, 2023). Reluctance to embrace these advances is a critical obstacle for audit firms, calling into question their ability to remain relevant and competitive in today's business environment (Shapovalova et al., 2023).

The transformation of financial auditing in the context of digitalization is a topic that has been increasingly addressed in recent literature. Abdullah and Almaqtari (2024) emphasize that artificial intelligence and Industry 4.0 technologies have a decisive influence on audit practices, which justifies the need for research focused on how these tools shape procedural efficiency and maintain the relevance of professional reasoning.

A valuable reference framework is provided by Abdullah and Almaqtari (2024), who analyze the impact of artificial intelligence and Industry 4.0 on the transformation of audit practices. The authors highlight both the technological benefits (accuracy, speed, transparency) and the associated challenges (ethics, security, digital skills), issues that directly intersect with the theme of the present research, which focuses on the balance between procedural efficiency and professional judgment in financial auditing. Technological advances have transformed auditing, bringing efficiency, accuracy, and procedural depth (Abu Huson et al., 2024).

However, the integration of AI does not mean replacing the auditor, but rather a profound transformation of the way in which they exercise their professional judgment. According to International Standards on Auditing (ISA), the responsibility for assessing materiality, selecting evidence, and formulating the final opinion remains eminently human. In this context, AI becomes a technological partner that enhances procedural efficiency and analytical capacity, but which only reaches its full potential when combined with the auditor's discernment, experience, and professional ethics.

Thus, Deliu (2024) highlights that AI can increase the accuracy and speed of processes, but cannot replace professional scepticism and critical thinking. In the same vein, Cosăcescu (2023) sees the relationship between the accounting expert and AI as a strategic partnership, while Lungu and Bunget (2025) emphasize the need for balanced integration, aligned ethically and normatively. Complementarily, Hurducaci and Ionescu (2024) show that real-time analysis and automatic anomaly detection solutions add value to auditing only if they are applied under rigorous professional control.