



The Strategy based approach to applying artificial intelligence technology in accounting: with reference to auditing and management accounting trends

Ehsan Saadati^{1*}, Zahra Ansari³, Alireza Farahmandnia², Kamiyar Asadimehr⁴

1. Department of Accounting, Damavand Branch, Islamic Azad University, Damavand, Iran.
ehsan_saadati_1990@yahoo.com
2. PhD student, Accounting Department, Damavand Branch, Islamic Azad University, Damavand, Iran.
zhr1364asr@gmail.com
3. Master's degree student, Financial Management Department, Esfaryen Branch, Islamic Azad University, Esfaryen, Iran. afarahmandniaa@gmail.com
4. Department of Accounting, Firuzkooh Branch, Islamic Azad University, Firuzkooh, Iran.
asadimehrcamiyar@gmail.com

Abstract

The present study adopts a strategy-based approach to applying artificial intelligence AI technology in the accounting profession and its branches, such as auditing and management accounting. It focuses on the role of the experiences and subjective data of individuals working in the accounting field and its subfields as a means of developing hypotheses. To collect data and information, a survey was conducted using a Likert-scale questionnaire and the snowball sampling method was employed as one of the targeted sampling techniques. A total of 203 questionnaires were distributed. Of these, 187 were returned and after screening for completeness, 5 were excluded. Ultimately, 180 valid questionnaires were included in the analysis. To test the hypotheses, the structural equation modeling method with the partial least squares approach was employed using SmartPLS software. The results of hypothesis testing indicate that artificial intelligence can enhance the efficiency and responsiveness of individuals working in this profession (accounting and its branches such as auditing and management accounting). Moreover, it encourages them to pay greater attention to the requirements of information technology in the accounting field and its related branches and to make increased use of this technology. In addition, the implementation of artificial intelligence may lead to the revision and modernization of university curricula in accounting and its subfields and may also contribute to the continuous enhancement of software knowledge among professionals in this field.

OPEN ACCESS

Article type: Research Article

*Correspondence:

Ehsan Saadati

ehsan_saadati_1990@yahoo.com

Received: May 28, 2025

Accepted: June 12, 2025

Published: Summer 2025

Citation: Saadati, E., ansari, Z., farahmandniaa, A. and asadimehr, K. (2025). The Strategy based approach to applying artificial intelligence technology in accounting: with reference to auditing and management accounting trends. *Strategic Management Accounting*, 2(2),1-20.

Publisher's Note: MSDS stays neutral with regard to jurisdictional claims in published material and institutional affiliations.



Copyright: © 2025 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Keywords: Strategy for using artificial intelligence, Technological progress, Transformation in the accounting profession and its trends.

JEL Classification: M41, M42, O30.

DOI: [10.22034/smajournal.2025.526677.1036](https://doi.org/10.22034/smajournal.2025.526677.1036)

INTRODUCTION

Artificial Intelligence (AI) is an emerging, innovative and transformative technology designed to emulate human intelligence in addressing complex real-world challenges. Initially developed to automate tasks traditionally performed by humans, AI has evolved into a multidimensional tool with applications spanning nearly every domain of human activity. While proponents of AI argue for its vast utility across sectors, critics caution that its pervasive adoption may significantly disrupt existing practices. The fields of accounting, auditing and management accounting are no exceptions to this technological shift.

As the accounting profession becomes increasingly data-driven, AI holds the potential to revolutionize traditional workflows from data entry and bookkeeping to the preparation and analysis of financial statements. Scholars highlight that such processes, though essential, are often time-intensive and susceptible to human error ([Kunduru and Kandepu, 2023](#)). The integration of AI into accounting practice is projected to enhance operational efficiency, improve the accuracy of financial data and empower professionals to undertake more complex analytical tasks ([Hassan et al., 2024](#) and [Nwankwo, 2023](#)).

Despite global advancements, existing literature in the Iranian context lacks a strategic, future-oriented perspective on AI adoption in accounting. The present study addresses this gap by evaluating whether AI implementation can advance the discipline and its subfields within Iran. Researchers such as [Ajayi-Nifise et al. \(2024\)](#) argue that AI may significantly alter the paradigms of accounting, fostering high-performance environments, expanding value-generating opportunities and strengthening strategic decision-making. This study thus seeks to explore the strategic implications of AI integration into accounting, auditing and management accounting within a national context. Artificial Intelligence (AI) has emerged as one of the most transformative developments within computer science, demonstrating cognitive capabilities akin to human intelligence. Defined as the simulation of human intelligence processes by machines, AI has evolved from theoretical constructs into powerful tools capable of executing tasks with precision and efficiency surpassing human abilities ([Alghafiqi and Munajat, 2022](#)). Its integration into accounting and its subfields (such as auditing and management accounting) represents a profound shift in both the theory and practice of financial information processing.

Several studies affirm AI's potential to enhance financial decision-making, streamline transactional processes and increase data accuracy ([Almulla et al., 2024](#) and [Kokina and Davenport, 2017](#)). AI systems offer real-time analysis, predictive capabilities and risk assessments that were traditionally labor-intensive, thereby reallocating human effort toward more strategic functions. [Dai and Vasarhelyi \(2017\)](#) highlighted AI's superior capacity in identifying cost and revenue patterns, enhancing productivity and organizational efficiency.

Despite these benefits, scholars such as [Holmes and Douglass \(2022\)](#) have underscored the risks inherent in early-stage implementation, including data security concerns, ethical considerations and the need for skilled personnel. In the Iranian context, [Azizi \(2025\)](#) and [Rajabzadeh et al. \(2022\)](#) emphasized the current inefficiencies in audit systems, advocating for the integration of expert systems and intelligent auditing tools.

The present study builds upon this growing body of literature by proposing a strategy-oriented framework for AI adoption in the Iranian accounting sector. It posits three hypotheses concerning the impact of AI on professional efficiency, IT integration and academic curriculum reform. These hypotheses aim to address the multifaceted implications of AI adoption in accounting, positioning it as both a driver of innovation and a catalyst for structural change.

METHODOLOGY

This study adopts a quantitative, survey-based research strategy to investigate the strategic integration of Artificial Intelligence (AI) into the domains of accounting, auditing and management accounting. The research is grounded in a positivist paradigm, emphasizing objectivity, replicability and empirical validation of hypotheses derived from existing theoretical frameworks ([Saadati et al., 2023](#)).

The survey method, employing a structured Likert-scale questionnaire, was designed to capture the cognitive and experiential insights of professionals currently active in accounting-related fields.

The sampling approach was non-probabilistic and followed the snowball technique, allowing for broad dissemination of the questionnaire among qualified respondents. Out of 203 distributed questionnaires, 187 were returned, with 180 deemed valid after initial screening yielding an 88% effective response rate, which is considered robust for field-based studies. The collected data were coded and organized in Microsoft Excel and subsequently analyzed using SmartPLS to assess the proposed structural model and test the formulated hypotheses.

The conceptual model includes four primary constructs: (1) perceived usefulness of AI in accounting functions, (2) its impact on professional efficiency and accountability, (3) the influence of AI on digital workplace environments and (4) the anticipated curricular and skill-related transformations in accounting education. Each construct was operationalized through multiple observed variables (Table 1), reflecting dimensions such as error reduction, enhanced decision-making, strategic foresight, digital workplace flexibility and the educational implications of AI adoption.

The methodology is designed to provide both theoretical generalizability and empirical insight, enabling a systematic evaluation of AI's transformative potential within the accounting profession in the Iranian context.

RESULTS

The findings of this empirical study, grounded in survey data collected through a localized self-administered Likert-scale questionnaire, offer significant insights into the perceptions of Iranian accounting professionals regarding the strategic integration of Artificial Intelligence (AI) within their field. The questionnaire consisted of biographical information and measured four key constructs: AI utility, professional efficiency and accountability, IT-enabled workplace transformation and educational reform. A total of 180 valid responses were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). Internal consistency and construct validity were confirmed, with Cronbach's alpha and composite reliability values exceeding the acceptable threshold of 0.70 for all constructs. Convergent validity was demonstrated through Average Variance Extracted (AVE) values above 0.50, while discriminant validity was established by comparing the square roots of AVEs with inter-construct correlations. Descriptive analysis indicated that participants generally held a positive yet varied perception of AI's role in accounting. The highest-rated items pertained to AI's role in risk assessment (AI3: $M = 2.96$) and decision-making support (RT4: $M = 3.91$). Pearson correlation analysis revealed strong and statistically significant associations among all variables, with the highest correlation observed between AI utility and efficiency/responsiveness ($r = 0.712$). Hypothesis testing confirmed all three research hypotheses. AI implementation was shown to significantly enhance efficiency and responsiveness ($\beta = 0.804$, $p < 0.001$), IT workplace functionality ($\beta = 0.653$, $p < 0.001$) and academic curriculum reform with increased technical proficiency ($\beta = 0.565$, $p < 0.001$). These results collectively affirm the transformative impact of AI on accounting functions, both operationally and educationally, within the Iranian context.

CONCLUSION

This study aimed to evaluate the strategic-oriented application of Artificial Intelligence (AI) within the field of accounting and its sub-disciplines, including auditing and management accounting. The findings affirm that AI, as a cognitively advanced technology capable of performing high-precision decision-making tasks, holds transformative potential for the accounting profession. The results of structural equation modeling demonstrated statistically significant relationships between AI implementation and key professional outcomes: enhanced efficiency, increased engagement with IT environments and reform in accounting curricula. The discussion highlights that the integration of AI into accounting is not merely a technological shift, but a paradigm change. AI can significantly reduce repetitive tasks, enhance accuracy in operational decisions and enable accountants to shift their focus toward strategic and analytical functions. However, the findings also prompt critical reflections on the broader

implications of such transformations particularly concerns regarding workforce displacement and the need for continuous reskilling. Despite its benefits, successful AI adoption in accounting hinges on educational preparedness, organizational readiness and ethical considerations. The study underscores the need to redesign academic curricula to embed AI competencies, thus bridging the gap between theoretical instruction and practical application. Moreover, concerns regarding the erosion of human judgment and potential job displacements necessitate further longitudinal and multidisciplinary studies. In conclusion, AI adoption in accounting is both inevitable and advantageous. When strategically implemented, it not only improves organizational performance but also elevates the technical and cognitive capacities of accounting professionals. The study recommends proactive policymaking, institutional support and continuous professional development to ensure AI serves as a catalyst for sustainable and inclusive growth in the accounting domain.

Contribution of Authors

All authors participated equally in all stages of the research..

Ethical Approval

Informed written consent was obtained from individuals for the publication of their anonymous information in this study.

Sponsor

The present research did not receive financial support from any specific institution or organization.

Conflict of Interest

The authors of this article declared no conflict of interest regarding the authorship or publication of this article.

Acknowledgements

The authors gratefully acknowledge the valuable cooperation of all accountants, auditors and financial managers who contributed to the completion of the questionnaire and the data collection process.

References

- Adrianto, C. J., Tohang, V., & Tandiono, R. (2023). The Impact of Automation on the Accounting Profession-The Perspective of Indonesian Accountants. *The 4th International Conference of Biospheric Harmony Advanced Research*. <https://doi.org/10.1051/e3sconf/202338803035>
- Ajayi-Nifise, A. O., Odeyemi, O., Mhlongo, N. Z., Ibeh, C. V., Elufioye, O. A., & Awonuga, K. F. (2024). The future of accounting: Predictions on automation and AI integration. *World journal of advanced research and reviews*, 21(2), 399-407. <https://doi.org/10.30574/wjarr.2024.21.2.0466>
- Alghafiqi, B., & Munajat, E. (2022). Impact of artificial intelligence technology on accounting profession. *Berkala Akuntansi dan Keuangan Indonesia*, 7(2), 140-159. <https://doi.org/10.20473/baki.v7i2.27934>
- Almulla, D., Abbas, M., Al-Alawi, A., & Alkooheji, L. (2024). Process and impact evaluation of Artificial Intelligence in managerial accounting: A systematic literature review. *International Journal of Computing and Digital Systems*, 15(1), 1467-1482. <https://doi.org/10.12785/ijcds/1501104>
- Al-Okaily, M. (2024). Attitudes toward the adoption of accounting analytics technology in the digital transformation landscape. *Journal of Accounting & Organizational Change*. <https://doi.org/10.1108/JAOC-04-2024-0127>
- Assidi, S., Omran, M., Rana, T., & Borgi, H. (2025). The role of AI adoption in transforming the accounting profession: a diffusion of innovations theory approach. *Journal of Accounting & Organizational Change*. <https://doi.org/10.1108/JAOC-04-2024-0124>
- Awad Mezaal, J., Aghaei Chadegani, A., Deherieb AL Robaaiy, M. S., & Alimoradi, M. (2023). Comparing the Performance of Linear Models and Artificial Intelligence to Predict the Manipulation of Financial Statements: Empirical Evidence from Dechow Model and Bayes Networks. *Financial Accounting*, 15(60), 74-86. [In Persian] <https://qfaj.mobarakeh.iau.ir/article-1-2782-fa.html>
- Azarsaeed, Y., & Rostami, S. (2023). Artificial Intelligence and Ethical Decision-Making in Accounting and Auditing: Analysis of Related Challenges. *Judgment and Decision Making in Accounting and Auditing*, 2(7), 87-114. [In Persian] <https://doi.org/10.30495/jdaa.2023.705528>
- Azizi, F. (2025). Future study of artificial intelligence application in auditing: from the perspective of information science and technology. *Judgment and Decision Making in Accounting and Auditing*, 4(13), 119-134. [In Persian] <https://doi.org/10.71960/jdaa.2025.1127884>
- Baiod, W., & Hussain, M. M. (2024). The impact and adoption of emerging technologies on accounting: perceptions of Canadian companies. *International Journal of Accounting & Information Management*, 32(4), 557-592. <https://doi.org/10.1108/IJAIM-05-2023-0123>

- Boritz, J. E., & Stratopoulos, T. C. (2023). AI and the accounting profession: Views from industry and academia. *Journal of Information Systems*, 37(3), 1-9. <https://doi.org/10.2308/ISYS-2023-054>
- Bou Reslan, F., & Jabbour Al Maalouf, N. (2024). Assessing the Transformative Impact of AI Adoption on Efficiency, Fraud Detection, and Skill Dynamics in Accounting Practices. *Journal of Risk and Financial Management*, 17(12), 577-592. <https://doi.org/10.3390/jrfm17120577>
- Dai, J., & Vasarhelyi, M. A. (2017). Toward blockchain-based accounting and assurance. *Journal of information systems*, 31(3), 5-21. <https://doi.org/10.2308/isys-51804>
- Hamza, M., & Damak-Ayadi, S. (2023). The perception of audit quality among financial statements users, preparers and auditors, in Tunisia. *Accounting and Management Information Systems*, 22(2), 202-224. <https://www.ceeol.com/search/article-detail?id=1127648>
- Hasan, A. R. (2021). Artificial Intelligence (AI) in accounting & auditing: A Literature review. *Open Journal of Business and Management*, 10(1), 440-465. <https://doi.org/10.4236/ojbm.2022.101026>
- Hassan, A. O., Ewuga, S. K., Abdul, A. A., Abrahams, T. O., Oladeinde, M., & Dawodu, S. O. (2024). Cybersecurity in banking: a global perspective with a focus on Nigerian practices. *Computer Science & IT Research Journal*, 5(1), 41-59. <http://dx.doi.org/10.51594/csitrj.v5i.701>
- Holmes, A. F., & Douglass, A. (2022). Artificial intelligence: Reshaping the accounting profession and the disruption to accounting education. *Journal of Emerging Technologies in Accounting*, 19(1), 53-68. <https://doi.org/10.2308/JETA-2020-054>
- Juniardi, E., & Putra, D. M. (2024). Digital Transformation in Accounting: Navigating the Future of the Profession Through Systematic Review and Meta-analysis. *KnE Social Sciences*, 17-35. <https://doi.org/10.18502/kss.v9i20.16467>
- Kokina, J., & Davenport, T. H. (2017). The emergence of artificial intelligence: How automation is changing auditing. *Journal of emerging technologies in accounting*, 14(1), 115-122. <https://doi.org/10.2308/jeta-51730>
- Kunduru, A. R., & Kandepu, R. (2023). Data archival methodology in enterprise resource planning applications (Oracle ERP, Peoplesoft). *Journal of Advances in Mathematics and Computer Science*, 38(9), 115-127. <https://doi.org/10.9734/jamcs/2023/v38i91809>
- Mirzaei, S. A., Nikdel, Z., & Nikdel, Z. (2021). Investing Neural Network Training with Metaheuristic Algorithms in order to Prediction of Iran Stock Index. *Journal of Capital Market Analysis*, 1(2), 188-212. [In Persian] <https://sanad.iau.ir/en/Journal/jcma/Article/997172>
- Nadikattu, A. K. R. (2021). Influence of artificial intelligence on robotics industry. *International Journal of Creative Research Thoughts (IJCRT)*, 2320-2882. https://www.researchgate.net/publication/354968266_Influence_of_Artificial_Intelligence_on_Robotics_Industry

- Ndaka, A., Lassou, P. J., Kan, K. A. S., & Fosso-Wamba, S. (2024). Toward response-able AI: A decolonial perspective to AI-enabled accounting systems in Africa. *Critical Perspectives on Accounting*, 99, 102736. <https://doi.org/10.1016/j.cpa.2024.102736>
- Nwankwo, S. N. P. (2023). Enhancing Non-Financial Performance in Manufacturing Companies through the Integration of Artificial Intelligence in Accounting Information Systems. *Advance Journal of Management, Accounting and Finance*, 8(10), 43-56. <https://eprints.gouni.edu.ng/4222/>
- Odonkor, B., Kaggwa, S., Uwaoma, P. U., Hassan, A. O., & Farayola, O. A. (2024). The impact of AI on accounting practices: A review: Exploring how artificial intelligence is transforming traditional accounting methods and financial reporting. *World Journal of Advanced Research and Reviews*, 21(1), 172-188. <https://doi.org/10.30574/wjarr.2024.21.1.2721>
- Peng, Y., Ahmad, S. F., Ahmad, A. Y. B., Al Shaikh, M. S., Daoud, M. K., & Alhamdi, F. M. H. (2023). Riding the waves of artificial intelligence in advancing accounting and its implications for sustainable development goals. *Sustainability*, 15(19), 14165. <https://doi.org/10.3390/su151914165>
- Rajabzadeh, H., Gorganli Doji, J., Naderian, A., & Ashrafi, M. (2022). Lasso artificial intelligence approach in liquidity forecasting Companies listed on the Tehran Stock Exchange. *Financial Knowledge of Securities Analysis*, 5(52), 37-48. [In Persian] <https://doi.org/10.30495/jfksa.2022.19833>
- Rawashdeh, A. (2025). The consequences of artificial intelligence: an investigation into the impact of AI on job displacement in accounting. *Journal of Science and Technology Policy Management*, 16(3), 506-535. <https://doi.org/10.1108/JSTPM-02-2023-0030>
- Saadati, E., Yazdani, S., Khanmohammadi, M., & Gorjizadeh, D. (2023). Future studies the role of factors determining of managers' fraud through the use of the fraud diamond model. *Advances in Finance and Investment*, 4(2), 85-114. [In Persian] <https://doi.org/10.30495/afi.2023.1981633.1204>
- Tain, R. (2024). The Effects of AI on Recruiting in the Accounting Field. *CMC Senior Theses*. https://scholarship.claremont.edu/cmc_theses/3401/
- Tavares, M. C., Azevedo, G., Marques, R. P., & Bastos, M. A. (2023). Challenges of education in the accounting profession in the Era 5.0: A systematic review. *Cogent Business & Management*, 10(2), 2220198. <https://doi.org/10.1080/23311975.2023.2220198>
- Yigitbasioglu, O., Green, P., & Cheung, M. Y. D. (2023). Digital transformation and accountants as advisors. *Accounting, Auditing & Accountability Journal*, 36(1), 209-237. <https://doi.org/10.1108/AAAJ-02-2019-3894>