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AI ERA IN REPORTING AND MANAGERIAL ACCOUNTING: IMPLICATIONS, PITFALLS AND POTENTIALS

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ABSTRACT

Purpose: The objective of this inquiry was to ascertain the extent to which technological paradigms have been institutionalised in accountancy and its concomitant practices, as well as to elucidate the pivotal determinants influencing the pragmatic assimilation of artificial intelligence technologies.

Design/Methodology/Approach: The research employed methods of analysis, synthesis, induction, systematisation, and survey administration. An integrative review methodology was applied to the theoretical research (a sample of 31 entries), and a survey method was used for the empirical study (a sample of 947 participants). The sampling for the integrative review was conducted through searches across a range of scientometric databases: Wiley, JSTOR, and MDPI. Survey sampling was conducted on Facebook by issuing an announcement inviting representatives of the accounting sector to participate.

Findings: It revealed a pronounced polarisation in technological receptivity, oscillating between enthusiastic embrace of innovation and latent resistance rooted in apprehensions of algorithmic encroachment on professional identity. Problematization is further compounded by a gnoseological asymmetry between developers of digital architectures and practitioners in the accounting sphere, necessitating the institutionalisation of interdisciplinary dialogue to foster a synergistic understanding of the permissible thresholds of technological intrusion into analytical processes.

Research Limitation: The authors foreground the epistemological disjunction between the latent potentialities of intelligent technologies and the methodological inertia pervading the professional milieu, as manifested in the fragmented and uneven implementation of AI across stakeholders in the accounting-analytical continuum.

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Practical Implication: The synthesis of investigative outcomes substantiates the imperative to renovate the normative-methodological foundations of professional accounting education, invigorate the trajectory of technological acculturation, and implement evaluative-criterial models tailored to the cultivation of digital intuition.
Social Implication: Central to the authors' conceptual posture is the proposition that intellectual capital plays a constitutive role in adapting to the digital hyper-reality, in which AI functions not merely as an instrumental appendage but as a structural agent of paradigmatic managerial transformation.
Originality/Value: The preponderance of exogenous macroeconomic vectors at the current phase of corporate evolutionary trajectory necessitates a paradigmatic recalibration of the juridico-regulatory scaffolding governing fiscal proceduralism within the technologised informatic context.
Keywords: *Auditing. blockchain. cybersecurity. entrepreneurship. machine learning*

INTRODUCTION

Currently, a tremendous number of developments are emerging worldwide in the field of information and innovative technologies, which are also being applied in the financial and banking sectors of the economy. It is expected that the banking sector will undergo radical changes in the coming decade. The foundation of these changes will be intelligent technologies and innovative projects. The current business models are primarily based on the comprehensive use of all information available in databases (Ugrin & Igou, 2025). This is done to support effective decision-making and elevate businesses to a high level of competitiveness in the digital economy (Krysovatyy et al., 2024).

The use of artificial intelligence in the banking sector provides an opportunity to address urgent issues. However, not every bank can implement such projects, as they require significant financial investment. A major transformation will take place in the provision of banking services. In the future, these services will be able to adapt to virtually any customer preferences and desires (Abbas, 2025). Credit institutions may also use artificial intelligence for risk management, providing real-time consulting, and investing in specific projects. Thus, the use of AI technologies will help enable operations with large volumes of data, which is a crucial factor for the financial sector.

The use of machines to make the most effective management decisions, to optimise work with information databases, and to analyse the effectiveness of investment contributions, without human involvement or with minimal participation, defines a decision-making process based solely on data, without subjective judgment.

One significant advantage of using artificial intelligence is that data collection never stops – the more it is used, the more effective the technology becomes. It is also becoming increasingly evident that the banking sector in our country still has significant room for growth. The outcome of this work will be a new level of customer relations in this sector. The most

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challenging aspect of working with AI is the inability to understand how it operates, even though the creators of these technologies still cannot fully explain or decipher the decision-making algorithms.

From a theoretical standpoint, contingency theory, which holds that organisational structure and procedures must adapt to technological advancements such as artificial intelligence, is used to analyse AI in management accounting. Due to AI's capacity for automation, analysis, and forecasting, the accountant's role will shift from routine tasks to strategic functions. Addressing the impact on human jobs, ensuring ethical data use and AI monitoring, and filling skills gaps through professional and educational development are among the main theoretical challenges.

Meanwhile, the array of publications that contribute to deep, multi-aspect discussions of the impact of digitalisation and the latest AI technologies on management accounting, illustrating how they can create business value and highlighting associated challenges and risks, is quite limited.

With this in mind, the objective of this inquiry was to ascertain the extent to which technological paradigms have been institutionalised in accountancy and its concomitant practices, and to elucidate the pivotal determinants influencing the pragmatic assimilation of artificial intelligence technologies.

LITERATURE REVIEW

The primary focus of AI theories in managerial accounting is on how automation, deeper insights, and better forecasting can improve productivity, accuracy, and strategic decision-making. Frameworks that take into account how AI will affect professional roles, the necessity of ethical standards, and the evolution of educational curricula, while also recognising possible hazards such as data bias and job displacement, support these beliefs. To overcome the drawbacks of conventional accounting and meet the demands of the digital age, a novel "intelligent accounting" hypothesis proposes combining AI with big data (Ugrin & Igou, 2025). It is unclear how organisational procedures and structures have changed due to digital technology, which has a substantial impact on how accounting data is internally collected, processed, and analysed to support managerial decision-making (Krysovatyy et al., 2024; Qatawneh, 2024).

However, given the rise and complexity of digitalisation and AI technologies, it is difficult to understand their impact on the management accounting domain, as research is limited.

One manifestation of artificial intelligence in the banking sector is online applications, which have been rapidly developing and expanding their functionality and capabilities in recent years (Zhang et al., 2023). Among the bank employees who may be affected by the spread of IT, IHS Markit has identified tellers, customer service staff, interviewers and clerks, financial managers, controllers, and credit specialists (Estran et al., 2022; Lee & Tajudeen, 2020). One

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While not all AI capabilities are critically essential for accounting and auditing, further advancements in these fields appear increasingly unlikely without leveraging automation technologies (Hasan, 2021; Hamilton, 2020).

The impetus for AI implementation in accounting and auditing arose from intensified regulatory demands, which complicated auditors' adaptation to the rapid changes in the regulatory landscape (Koc & Koc, 2024; Lamboglia et al., 2021). However, limited knowledge of specialised auditing software has hindered the widespread adoption of AI in these areas. Despite its numerous advantages, such as automating repetitive processes, processing digital data, and transforming textual information, AI remains unable to substitute the uniquely human qualities required for complex problem-solving (McBride & Philippou, 2022; Kapoor et al., 2022).

Although AI can significantly outperform human intelligence in areas of structured analysis and information processing, its susceptibility to fraud, errors, and data distortions creates a need for critical thinking, which remains a distinctly human domain (Agustí & Orta-Pérez, 2023; Kirpitsas & Pachidis, 2022). At the same time, the synergy between AI and human resources enables the efficient identification of systemic anomalies, which can subsequently be meticulously evaluated by auditors (Ibrahim et al., 2021). This highlights the importance of developing employee competencies to manage and interact with AI technologies.

The vogue of digitalisation in the contemporary economy encourages a paradigmatic shift in business methodologies. Anticipating escalating rivalry in both domestic and transnational markets, corporate top managers are wagering on advanced technologies and the implementation of disruptive innovations that engender profound metamorphoses across all facets of society and enable global economic propulsion (Cho et al., 2020). Globalisation and the synergistic evolution of the economy markedly augment entrepreneurial latitude. The world has transitioned into a novel digital epoch, in which organisational undertakings are predominantly focused on the development and utilisation of infotechnologies and aggregated data to render ancillary forms of production more efficient and thus facilitate an emergent stratum of economic advancement. This inclination is likewise discernible in the economic domain, particularly in accountancy, analytical praxis, and managerial operations, wherein nascent digital modalities are being embraced and actualised (Gaber & Lusk, 2021).

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MATERIALS AND METHODS

The research employed methods of analysis, synthesis, induction, systematisation, and survey administration. The integrative review method was applied in the theoretical part of the study. The sample size for the review was compiled by searching databases such as Wiley, JSTOR, and MDPI, as well as Google. Initial screening covered the titles and abstracts of the articles (65 publications were selected), and the second stage included a complete analysis of the publications selected at the first stage (31 entries were included in the final sample).

To attain the aforementioned research desideratum, a clandestine interrogative procedure encompassing 947 informants was orchestrated via the Google platform within the temporal bounds of June to September 2024, in strict conformity with bioethical postulates pertinent to survey execution and the dissemination of empirical insights. A prototypical instrumentarium is delineated in Appendix A. Participants were recruited through Facebook. An appropriate announcement was published, inviting representatives of the accounting sector to take part in the survey. Sampling was closed after achieving the planned number of respondents, 1000. However, 53 participants later refused to take part in the survey; thus, the overall final number of participants was 947.

The mean chronological index of participants was 44.5 ± 12.4 years, with 577 individuals (60.9%) self-identifying as women and 370 (39.1%) as men. Respondents were categorised into groups according to their professional activities: entrepreneurs (254 individuals, 26.8%), business consultants (169 individuals, 17.9%), accountants (305 individuals, 32.2%), and auditors (219 individuals, 23.1%). The survey results are presented graphically.

RESULTS AND DISCUSSION

To evaluate the degree of operationalisation of artificial intelligence (AI) paradigms within the domains of accountancy and auditology, an empirical study was conducted with a cohort comprising entrepreneurial actors, corporate advisors, fiscal practitioners, and audit professionals. The empirical artefacts resultant from this inquiry are graphically encapsulated in Figures 1, 2, 3, and 4.

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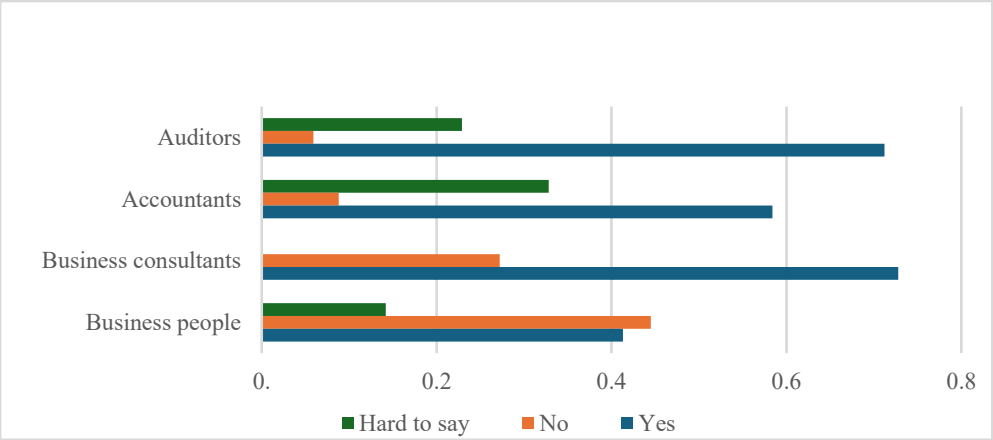

Figure 1: Utilisation of artificial intelligence in professional practices

As illustrated in Figure 1, the apex of artificial intelligence (AI) integration within professional domains is discernibly occupied by auditors and business consultants, reflecting not merely the operational utility of AI technologies, but signaling a broader epistemological shift wherein escalating regulatory complexity and taxonomic volatility necessitate a paradigm in which AI functions not as a mere computational adjunct, but as a catalytic agent of cognitive augmentation, streamlining analytical burdens while enabling a more nuanced alignment of emergent standards with multifaceted fiscal frameworks.

Conversely, the lowest level of AI utilisation is reported among entrepreneurs, suggesting limited awareness of AI's potential to optimise accounting tasks and overall business operations. Additionally, many accountants were unable to provide a definitive "yes" or "no" response regarding their use of AI in their work. This ambivalence suggests a lack of motivation among accountants to engage with new technologies and pursue relevant training.

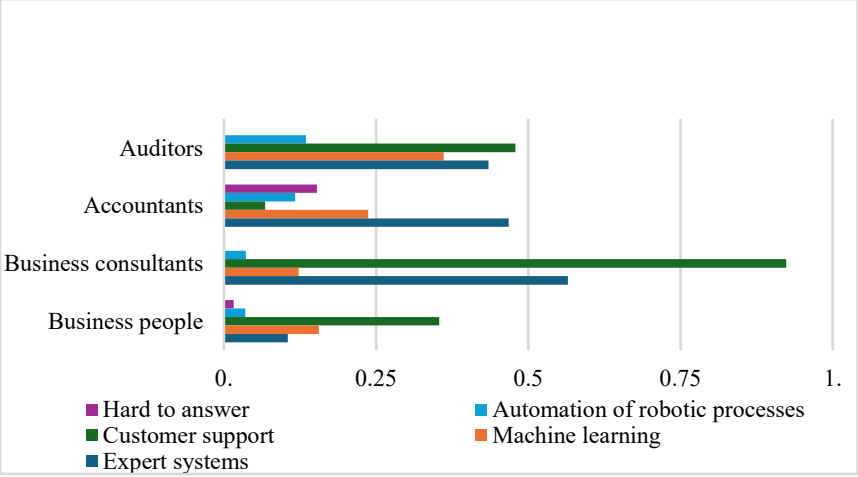

Figure 2: Categories of artificial intelligence technologies utilised by respondents

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As depicted in Figure 2, expert-analytical architectures, client-interfacing automatons, and algorithmic constructs based on machine learning principles were identified as the most widely utilised modalities among the respondent cohort. Regarding epistemological apprehension and cognitive penetration into the conceptual and functional dimensions of artificial intelligence, the survey revealed a marked predominance of epistemic acuity among corporate consultants and audit specialists (Figure 3). The participants articulated the highest degree of proclivity toward adopting expert systems, machine learning methodologies, robotised procedural automatons, and technological facilitators for client interaction.

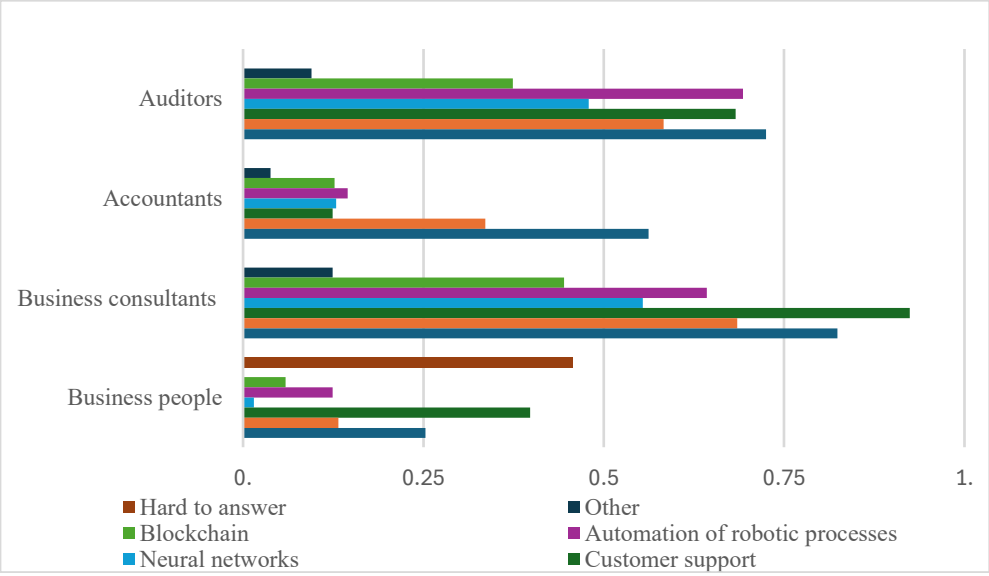

Figure 3: Awareness regarding types of artificial intelligence and their associated benefits

Business consultants and auditors highly praised the potential and efficiency of innovations such as blockchain technologies and artificial neural networks. In contrast, representatives of the accounting profession and entrepreneurial sector exhibited a limited level of proficiency in complex systems, particularly blockchain and neural networks. Moreover, a significant proportion of entrepreneurs demonstrated a complete inability to name any specific artificial intelligence technology, underscoring the pressing need to engage professional consultants to enhance accounting and auditing systems in business practices.

In evaluating the prospects for integrating artificial intelligence into accounting and auditing, it is noteworthy that respondents from the auditing and business consulting sectors exhibited the most optimistic outlook. This reflects not only a high degree of technological awareness but also an intrinsic motivation to adopt innovation-driven transformations. Conversely, within the professional community of accountants, a discernible segmentation of attitudes was observed: approximately one-third of respondents expressed a negative stance toward AI adoption, primarily driven by latent apprehensions about potential job displacement stemming from escalating automation in routine accounting operations.

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Entrepreneurs, on the other hand, demonstrated a markedly conservative technological posture, predominantly informed by concerns about the potential compromise of data confidentiality, anticipated capital expenditures for implementing and maintaining novel software solutions, and the risk of system failures that could precipitate substantial financial and legal penalties (Figure 4).

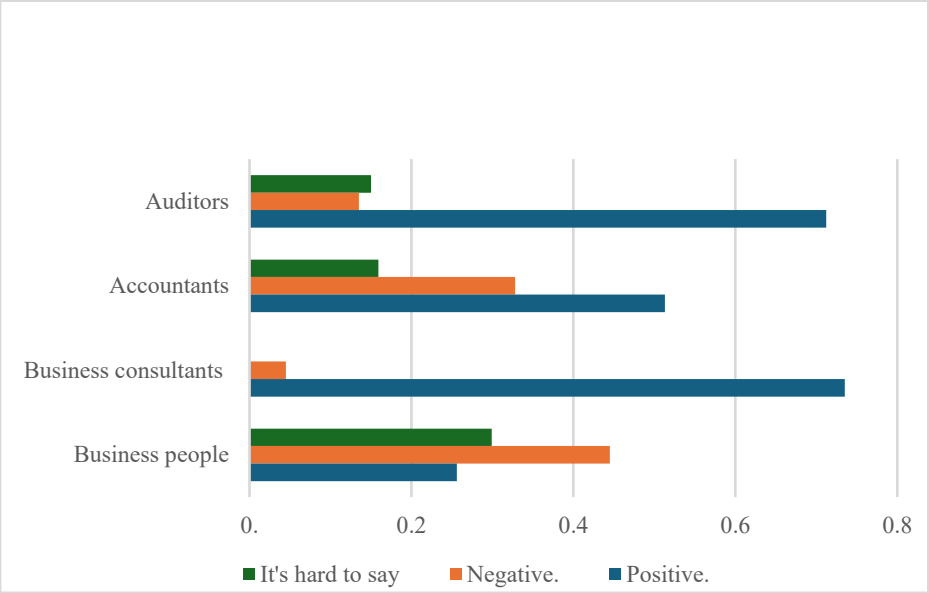

Figure 4: Attitudes towards the fields of accounting and auditing

A synthetic analysis of the empirical findings reveals a relatively high level of practical deployment of AI technologies, primarily concentrated in expert systems, machine learning algorithms, and customer support services. However, more complex paradigms, such as artificial neural networks, blockchain architectures, and hybridised technological frameworks, have yet to achieve widespread application. This is attributable to an ambivalent perception among stakeholders, a general lack of specialised knowledge among entrepreneurs, and the limited capacity of accounting professionals to discern the potential benefits of such advanced tools.

In light of the foregoing, it appears imperative to adopt a systemic approach to enhance accountants' and entrepreneurs' technological literacy regarding contemporary AI innovations. Concurrently, it is advisable to promote the active engagement of business consultants and auditors whose expertise, both theoretical and applied, is demonstrably aligned with the exigencies of integrating artificial intelligence into the practice of accounting and auditing.

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Discussion

In recent decades, artificial intelligence has proliferated across virtually all domains of socio-economic activity, propelled by its capacity for hyper-automation and the intelligent optimisation of both operational and managerial processes. Particularly intensive implementation is observed in intelligent digital infrastructures, including Internet of Things (IoT) systems in the retail sector, client-oriented chatbots, and cognitive algorithms utilised in strategic marketing (Potwora et al., 2024; Qasim & Kharbat, 2020).

Nevertheless, the incorporation of advanced technological solutions within the realms of accounting and auditing unfolds with marked caution and incrementality, a tendency primarily attributable to the existential criticality of errors which may precipitate the loss of confidential data, escalation of fraudulent practices, financial inaccuracies, and legal collisions within the domain of tax compliance (Dameri et al., 2020; Cooper et al., 2019).

Empirical inquiries have revealed a substantial reduction in error rates when complex algorithmic architectures of artificial intelligence are employed (Zhang et al., 2020; Hasan, 2021), while contemporary scholarly literature underscores the positive potential of such technologies in identifying financial misconduct, mitigating corruption risks, and enhancing data accuracy (Qatawneh, 2024; Kussainov et al., 2023).

Our research likewise identifies a strikingly low level of both awareness and practical application of advanced AI systems, such as neural networks, hybrid architectures, genetic algorithms, and blockchain technologies. Despite sporadic attempts at integration, the prevailing discourse points to a significant gap between the technological offerings and the professional field's capacity for adaptation, a discrepancy shaped by both normative-methodological barriers and the necessity of a radical transformation of professional competencies (Demirkan et al., 2020).

The process of integrating blockchain platforms into financial monitoring practices proves particularly challenging, with impediments arising not solely from the need to reconceptualise traditional paradigms of managerial cognition, but also from a persistent lack of interdisciplinary consensus between developers of complex intelligent systems and the accounting profession. Accordingly, the institutionalisation of cross-sectoral communication becomes imperative through scientific symposia, interdisciplinary consultations, and expert dialogue platforms to bridge the cognitive divide (Centobelli et al., 2022; Harrast, 2020).

Among the factors underpinning professional scepticism toward AI implementation in accounting is apprehension about the marginalisation of human expertise, i.e., the potential obsolescence of job roles. Nonetheless, representative studies affirm the irreplaceability of human intelligence by technological means, emphasising the necessity for continuous upskilling and AI literacy among practitioners (Ibrahim et al., 2021; Li et al., 2021).

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Equally significant is the entrepreneurial scepticism documented in empirical studies, rooted in concerns about system malfunction, which may entail regulatory sanctions, increased expenditure on AI system updates, and pervasive mistrust in algorithmic safeguards for confidential data. Such shortcomings have also been thoroughly examined in academic literature, particularly within the context of cybersecurity vulnerabilities (Onatuyeh et al., 2025; Han et al., 2023; Haapamäki & Sihvonen, 2022; Zemánková, 2019).

CONCLUSION

The conducted survey revealed a notably high degree of artificial intelligence adoption among auditors and business consultants. A sufficiently robust level of AI utilisation was also identified among accountants and entrepreneurs. The most prevalent forms of AI in practice include expert systems, machine learning applications, and customer support systems. Concurrently, it was ascertained that business consultocrats and fiscal scrutineers exhibit a heightened level of noetic receptivity regarding arcane artificial cognition architectures – such as neurocomputational matrices, decentralised cryptographic ledgers, and automatized procedural robotics which, despite their transfigurative systemic potentialities, have not yet achieved omni-pervasive operational instantiation.

In the accounting system, rudimentary informational constructs are precipitated that are utilised in other enterprise cybernetic governance subsystems, as well as in the system of statutorily mandated epistemic oversight and other institutionalised bureaucratic macrostructures. In the context of widespread technological permeation of management processes, informational intersystemic transference becomes a temporal exigency of ontological magnitude. However, this gives rise to issues such as semantic incongruity, reiterative operational reduplication, and the gratuitous hyperproliferation of algorithmic-solutive infrastructures.

Reports emanating from disparate techno-informational substructures undergo protracted multilevel ratification protocols at all echelons of the enterprise's administrative stratigraphy. These complications can be ameliorated by consolidating heterogeneous infological architectures and anthropocentric data-curation mechanisms into a unified epistemo-informational-analytical continuum.

The preponderance of exogenous macroeconomic vectors at the extant phase of corporate evolutionary trajectory necessitates a paradigmatic recalibration of the juridico-regulatory scaffolding governing fiscal proceduralism within the technologized informatic context. This would furnish a novel impelling dynamic for the ontogenetic advancement of digitalised modalities in the domains of accounting hermeneutics, quantitative-exegetic diagnostics, and executive cybernetic orchestration. Consequently, the operability of executive functionalities shall be augmented, the epistemological integrity and decisional veracity of administrational determinations shall be enhanced, and unprecedented vectors for corporative expansion and transnational geoeconomic entrenchment shall materialise.

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Revised: September 2, 2025
Published: December 2025

REFERENCES

Abbas, K. (2025). Management accounting and artificial intelligence: a comprehensive literature review and recommendations for future research. *The British Accounting Review*, 101551.

Agustí, M. A., & Orta-Pérez, M. (2023). Big data and artificial intelligence in the fields of accounting and auditing: A bibliometric analysis. *Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad, 52*(3), 412–438. https://doi.org/10.1080/02102412.2022.2099675

Amanamah, R. B. (2025). The impact of firm age on independent audit committee and voluntary disclosure quality. *African Journal of Applied Research*, *11*(1), 228-256.

Centobelli, P., Cerchione, R., Del Vecchio, P., Oropallo, E., & Secundo, G. (2022). Blockchain technology design in accounting: Game changer to tackle fraud or technological fairy tale? *Accounting, Auditing & Accountability Journal, 35*(7), 1566–1597. https://doi.org/10.1108/AAAJ-10-2020-4994

Cho, S., Vasarhelyi, M. A., Sun, T., & Zhang, C. (2020). Learning from machine learning in accounting and assurance. *Journal of Emerging Technologies in Accounting, 17*(1), 1–10. https://doi.org/10.2308/jeta-10718

Cooper, L. A., Holderness Jr, D. K., Sorensen, T. L., & Wood, D. A. (2019). Robotic process automation in public accounting. *Accounting Horizons, 33*(4), 15–35. https://doi.org/10.2308/acch-52466

Dameri, R. P., Garelli, R., & Resta, M. (2020). Neural networks in accounting: Clustering firm performance using financial reporting data. *Journal of Information Systems, 34*(2), 149–166. https://doi.org/10.2308/isys-18-002

Demirkan, S., Demirkan, I., & McKee, A. (2020). Blockchain technology in the future of business cyber security and accounting. *Journal of Management Analytics, 7*(2), 189–208. https://doi.org/10.1080/23270012.2020.1731721

Estran, R., Souchaud, A., & Abitbol, D. (2022). Using a genetic algorithm to optimise an expert credit rating model. *Expert Systems with Applications, 203*, 117506. https://doi.org/10.1016/j.eswa.2022.117506

Gaber, M., & Lusk, E. J. (2021). Vetting client datasets using an audit decision support system: An enhancement in creating audit-evidence. In: *Auditing Ecosystem and Strategic Accounting in the Digital Era: Global Approaches and New Opportunities.* (pp. 231–251). Cham: Springer International Publishing. https://doi.org/10.1016/j.dss.2020.113402

Haapamäki, E., & Sihvonen, J. (2022). Cybersecurity in accounting research. In: *Artificial Intelligence in Accounting.* (pp. 182–214). Routledge. https://doi.org/10.4324/9781003198123

Hamilton, M. (2020). Blockchain distributed ledger technology: An introduction and focus on smart contracts. *Journal of Corporate Accounting & Finance, 31*(2), 7–12. https://doi.org/10.1002/jcaf.22421

Han, H., Shiwakoti, R. K., Jarvis, R., Mordi, C., & Botchie, D. (2023). Accounting and auditing with blockchain technology and artificial intelligence: A literature review. *International*

Copyright © African Journal of Applied Research

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Revised: September 2, 2025
Published: December 2025

Journal of Accounting Information Systems, 48, 100598. https://doi.org/10.1016/j.accinf.2022.100598

Harrast, S. A. (2020). Robotic process automation in accounting systems. *Journal of Corporate Accounting & Finance, 31*(4), 209–213. https://doi.org/10.1002/jcaf.22457

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

Ibrahim, A. E. A., Elamer, A. A., & Ezat, A. N. (2021). The convergence of big data and accounting: Innovative research opportunities. *Technological Forecasting and Social Change, 173*, 121171. https://doi.org/10.1016/j.techfore.2021.121171

Kapoor, I. S., Bindra, S., & Bhatia, M. (2022). Machine learning in accounting & finance: Architecture, scope & challenges. *International Journal of Business and Management, 17*(5), 13–22. https://doi.org/10.5539/ijbm.v17n5p13

Kirpitsas, I. K., & Pachidis, T. P. (2022). Evolution towards hybrid software development methods and information systems audit challenges. *Software, 1*(3), 316–363. https://doi.org/10.3390/software1030015

Koc, D., & Koc, F. (2024). A machine learning and deep learning-based account code classification model for sustainable accounting practices. *Sustainability, 16*(20), 8866. https://doi.org/10.3390/su16208866

Krysovatyy, A., Desyatnyuk, O., & Ptashchenko, O. (2024). Digital innovations and their ramifications for financial and state security. *African journal of applied research*, *10*(1), 431-441.

Kussainov, K., Goncharuk, N., Prokopenko, L., Pershko, L., Vyshnivska, B., & Akimov, O. (2023). Anti-corruption management mechanisms and the construction of a security landscape in the financial sector of the EU economic system against the background of challenges to European integration: Implications for artificial intelligence technologies. *Economic Affairs (New Delhi), 68*(1), 509–521. https://doi.org/10.46852/0424-2513.1.2023.20

Lamboglia, R., Lavorato, D., Scornavacca, E., & Za, S. (2021). Exploring the relationship between audit and technology: A bibliometric analysis. *Meditari Accountancy Research, 29*(5), 1233–1260. https://doi.org/10.1108/MEDAR-03-2020-0836

Lee, C. S., & Tajudeen, F. P. (2020). Usage and impact of artificial intelligence on accounting: Evidence from Malaysian organisations. *Asian Journal of Business and Accounting, 13*, 213–240. https://doi.org/10.22452/ajba.vol13no1.8

Li, S., Fisher, R., & Falta, M. (2021). The effectiveness of artificial neural networks applied to analytical procedures using high level data: A simulation analysis. *Meditari Accountancy Research, 29*(6), 1425–1450. https://doi.org/10.1108/MEDAR-06-2020-0920

Likarchuk, N., Andrieieva, O., Likarchuk, D., & Bernatskyi, A. (2022). Impression marketing as a tool for building emotional connections in the public administration sphere. *Studies in Media and Communication, 10*(1), 9–16. https://doi.org/10.11114/smc.v10i1.5463

McBride, K., & Philippou, C. (2022). "Big results require big ambitions": Big data, data analytics and accounting in masters courses. *Accounting Research Journal, 35*(1), 71–100. https://doi.org/10.1108/ARJ-04-2020-0077

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Onatuyeh, E. A., Oghorodi, D., Okpako, E. A., Ojei, E., Osakwe, G., Chinedu, N. B., ... & Nwankwo, W. (2025). Cybersecurity and Business Survival in Nigeria: Building Customer's Trust. *African Journal of Applied Research*, *11*(1), 786-813.

Potwora, M., Vdovichena, O., Semchuk, D., Lipych, L., & Saienko, V. (2024). The use of artificial intelligence in marketing strategies: Automation, personalisation and forecasting. *Journal of Management World, 2024*(2), 41–49. https://doi.org/10.53935/jomw.v2024i2.275

Qasim, A., & Kharbat, F. F. (2020). Blockchain technology, business data analytics, and artificial intelligence: Use in the accounting profession and ideas for inclusion in the accounting curriculum. *Journal of Emerging Technologies in Accounting, 17*(1), 107–117. https://doi.org/10.2308/jeta-52649

Qatawneh, A. M. (2024). The role of artificial intelligence in auditing and fraud detection in accounting information systems: Moderating role of natural language processing. *International Journal of Organisational Analysis*. https://doi.org/10.1108/IJOA-03-2024-4389

Ugrin, J., & Igou, A. (2025). *Managerial accounting: Principles, analytics, and artificial intelligence.* Wiley.

Zemánková, A. (2019). Artificial intelligence and blockchain in audit and accounting: A literature review. *WSEAS Transactions on Business and Economics, 16*, 568–581. https://doi.org/10.1109/ICCAIRO47923.2019.00031

Zhang, C., Issa, H., Rozario, A., & Soegaard, J. S. (2023). Robotic process automation (RPA) implementation case studies in accounting: A beginning to end perspective. *Accounting Horizons, 37*(1), 193–217. https://doi.org/10.2308/HORIZONS-2021-084

Zhang, Y., Xiong, F., Xie, Y., Fan, X., & Gu, H. (2020). The impact of artificial intelligence and blockchain on the accounting profession. *IEEE Access, 8*, 110461–110477. https://doi.org/10.1109/ACCESS.2020.3000505

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