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Review Article

Accounting and Artificial Intelligence: A Systematic Review of the Literature on the Technological Impacts in the Accounting Field

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ABSTRACT

The incorporation of artificial intelligence (AI) has redefined the boundaries of accounting by shifting the focus from operational tasks to data-driven cognitive processes and strategic decisions. The general objective of this study was to analyze the impacts of artificial intelligence on contemporary accounting, specifically seeking to: (i) identify the main domains of application of AI in accounting practice; (ii) discuss the challenges and limitations associated with its adoption in organizational and professional contexts; and (iii) examine the implications of intelligent automation on human competencies, professional ethics, and the training of new accountants. The systematic literature review (RSL) technique was employed, utilizing 102 peer-reviewed publications published from 2020 to 2025 in the Web of Science database, of which 26 were thoroughly studied and 12 were directly pertinent to the research aims. The results indicate that AI transcends automation by transforming accounting into a strategic function, increasing the efficiency of processes, the quality of decisions, and the reliability of information. However, its adoption imposes ethical, technical, and regulatory challenges, such as algorithmic biases, governance gaps, and the need for continuous reskilling. In addition, automation redefines the accountant's profile by requiring analytical thinking, critical judgment, and mastery of emerging technologies. Thus, it is concluded that artificial intelligence reconfigures the epistemological and institutional logic of accounting, demanding new normative structures, educational strategies, and governance models capable of guiding its application in an ethical, efficient, and socially responsible way.

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1. INTRODUCTION

To achieve these purposes, the systematic literature review (SLR) method is adopted, given its capacity to ensure methodological transparency and analytical consistency in identifying, evaluating, and synthesizing scientific evidence related to the topic. Recently, an academic study suggested that the integration between accounting and artificial intelligence changes the epistemological paradigms of accounting, therefore transferring the emphasis to manual processes and migrating to cognitive processes that are based on data. Murphy *et al.* (2024) demonstrate, based on topic modeling in 930 abstracts, that the academic debate on AI in accounting focuses on efficiency, automation, and informational reliability, which reveals a structural transformation of the profession. Bou Reslan and Al Maalouf (2024) contend that the integration of AI transforms both technical procedures and the requisite skill set, necessitating a reevaluation of the educational and ethical underpinnings of accounting practice. Consequently, technological advancement transforms from a simple operational instrument into a burgeoning institutional logic within the modern accounting domain. Despite the growing enthusiasm for the adoption of intelligent systems, the literature on accounting and artificial intelligence still reveals conceptual and methodological fragmentation. The emphasis on analyses centered on operational efficiency often diminishes the comprehension of the phenomena to its technical aspects, overlooking its institutional and epistemological advancements. This perspective, when applied, makes it difficult to understand how AI can transform the professional game, the autonomy of accountants and the legitimacy of two decision-making processes based on algorithms. Murphy *et al.* (2024) assert that academic discourse prioritizes automation and fraud detection applications, but Bou Reslan and Al Maalouf (2024) note the lack of models that amalgamate human abilities with machine learning within a unified interpretive framework. Consequently, the gap addressed by this systematic review is not only in the paucity of empirical studies but also in the lack of a critical synthesis that connects the technological influence of AI to the cognitive and institutional changes within the accounting profession. In view of the theoretical fragmentation and the absence of critical syntheses that relate technology, practices and accounting skills, the following research question emerges: how has artificial intelligence impacted the practices, challenges and cognitive requirements of contemporary accounting? To answer the question asked, this study aimed to analyze the impacts of artificial intelligence on accounting. For this purpose, specific objectives were formulated that converge with the general aim: to map the main domains and modes of application of artificial intelligence within accounting practice; to examine the organizational and professional challenges and limitations that condition its adoption and diffusion; and to assess the implications of intelligent automation for human competencies, professional ethics, and the training of new accountants. To achieve these purposes, the systematic literature review (SLR) method is adopted.

2. LITERATURE REVIEW

The recent technological revolution has caused structural

changes in the world of work, shifting routine activities to automated systems and intensifying the demand for more complex cognitive skills. This phenomenon has heterogeneous effects across sectors and occupations, as technologies such as artificial intelligence (AI) and automation not only replace existing tasks but also create new roles that require continuous reskilling and complementary skills. Eloundou *et al.* (2023) highlight that this transformation expands the scope of action of professionals, redirecting the focus from repetitive tasks to strategic activities and critical analysis. In the public sector, empirical studies show significant gains in productivity and standardization with the adoption of robotic process automation (RPA), which frees up human resources for analytical and supervisory functions, demonstrating that the technological transition transcends industry and is already manifesting itself in different organizational fields (Neto *et al.*, 2024). This transformation is not restricted to the displacement of tasks, but also involves a profound reconfiguration of productive structures, labor relations, and institutional dynamics. Recent research indicates that automation and artificial intelligence operate at multiple levels occupational, functional, and organizational promoting redistribution of activities and requiring new forms of coordination between humans and machines (Filippi *et al.*, 2023). At the same time, the advancement of digital technologies raises dilemmas related to algorithmic transparency, decision-making accountability, and justice in the workplace, requiring new normative structures and governance mechanisms capable of ensuring equity and accountability in socio-technical systems (Santoni de Sio, 2024). The phenomenon also redefines subjective and qualitative dimensions of work, affecting well-being, autonomy, and interpersonal relationships in contexts increasingly mediated by algorithms. The rapid pace of technological innovation demands continuous training policies and institutional adaptations that ensure inclusion and social protection in the face of new labor market configurations (Filippi *et al.*, 2023). It is in this broader context that it is possible to understand the impact of the technological revolution on specific fields, such as accounting sciences, in which the transformations described materialize in a particular way. Digitalization, artificial intelligence, and process automation have driven a paradigm shift in the accounting profession, shifting the accountant from performing routine tasks to being a strategic curator of information and an architect of reliable data. This transition requires advanced technical and ethical skills, the ability to interpret large volumes of data, and mastery of emerging technologies, while raising new challenges related to information security, privacy, and professional responsibility (Barros *et al.*, 2025; Silva *et al.*, 2024; Campana *et al.*, 2025; Silva *et al.*, 2025). Contemporary work structures are being redesigned by the rise of algorithmic management, which incorporates automated systems for monitoring, supervising, and evaluating performance at an organizational scale. An OECD report (2025) identifies that such tools raise concerns about transparency, accountability, and lack of traceability in algorithm-assisted decision-making processes (OECD, 2025). Zhang & Liu (2025) argue that the algorithmic regime introduces a form of indirect governance, reorganizing workflows based on codified rules and objective metrics. In addition, Butler (2025) proposes the



concept of algorithmic management learning, which refers to the continuous learning of algorithmic control systems in response to human behaviors. Sullivan (2024) expands the discussion by emphasizing that the managerial algorithm inserts an interpretative hermeneutic in the organizational space, where "*automatic*" decisions need to be translated into human meaning. In this scenario, the phenomenon is not only technological, but systemic and normative: it requires institutions, regulators, and work cultures to rethink responsibility, agency, and justice in algorithmically mediated environments.

Theoretical Lens: the Resource-Based View (RBV),

The Resource-Based View (RBV) establishes that differential performance stems from the internal heterogeneity of organizations and the imperfect immobility of their assets, relocating the analytical focus on what the firm owns and coordinates. Wernerfelt (1984) formulates the firm as a repertoire of resources and Barney (1991) defines the conditions of sustained advantage through the VRIN attributes (value, rarity, difficult imitation and irreplaceability), linking them to the persistence of incomes. This theoretical inflection shifts the center of strategy to the configuration of assets and to the mechanisms of appropriation of value produced within organizational boundaries.

The logical support of this framework requires explaining when the advantage persists and why. Peteraf (1993) demonstrates that the durability of performance depends on four "*pillars*": superiority of resources, limits to ex ante competition, imperfections of mobility and limits to ex post to competition. By separating conditions of origin and maintenance, this formulation avoids tautologies and clarifies that it is not enough to have resources; It is necessary that the competitive context does not allow rapid diffusion, replacement or erosion of these assets. The strategic problem thus becomes constructive and defensive at the same time.

The field advances by distinguishing resources (stocks) from capacities (routines that orchestrate them). Amit and Schoemaker (1993) show that performance comes from coherent bundles and asset selection, integration, and protection mechanisms, while Eisenhardt and Martin (2000) describe capabilities as identifiable processes (product development patterns, alliances, reconfigurations) that, although common in form, produce idiosyncratic results when combined with distinct resource bases. This distinction shifts the analysis from "*possession*" to orchestration.

Conceptual precision is reinforced by the effort to untangle the theory. Peteraf and Barney (2003) reconcile formulations and delimit the analytical domain of RBV, avoiding confusion between efficiency-oriented explanations and derivations outside the resource level. In parallel, Barney *et al.* (2021) re-anchor RBV in Brandenburger and Stuart's framework for value creation and capture, clarifying causal relationships between resources, competition, and appropriation. This adjustment strengthens the testability of the theory and guides which variables belong to its core.

The contemporary agenda reopens and expands RBV's fronts without breaking its essence. Helfat *et al.* (2023) propose renewing the program by incorporating new contexts, concepts,

and methods, including resource reallocation, coordination in distributed organizations, and analytical techniques that delve deeper into microfoundations. The common thread remains: explaining how resources are composed, coordinated, and renewed to sustain advantage. In this continuity, RBV retains ontological and explanatory scope over the internal logic of value creation.

3. METHODOLOGY

This study uses the Systematic Literature Review (SLR) method due to its clear and replicable process for collecting, evaluating, and synthesizing scientific research (Tranfield *et al.*, 2003). A search was performed in the Web of Science (WoS) database using the following search terms combined with Boolean operators: ("*Artificial Intelligence*" OR "*AI*" OR "*Machine Learning*") AND ("*Accounting*" OR "*Digital Accounting*" OR "*Auditing*") AND ("*Impacts*" OR "*Applications*" OR "*Adoption*" OR "*Automation*"). The collection period was delimited between 2020 and 2025, in order to include the most recent literature aligned with the advancement of emerging technologies. The initial search returned 1,503 records.

Automatic filters were applied to restrict the sample to peer-reviewed journal articles, classified as "*article*" or "*review*," written in English, published between 2020 and 2025, and available in open access. After removing duplicates, conference proceedings, book chapters, and opinion papers, 102 studies remained eligible for analysis.

A title screening was then conducted to verify thematic adherence to the research scope. Sixty-six articles were excluded at this stage because their titles did not include simultaneous references to Artificial Intelligence and Accounting, or because they focused on unrelated fields such as computer science, engineering, or education. This step resulted in 36 remaining studies.

Subsequently, the abstracts of these 36 studies were analyzed to assess conceptual and methodological relevance. Articles that were purely technical, focused on algorithmic modeling, or lacked a connection to organizational, professional, or ethical aspects of accounting were excluded, leaving 26 eligible studies. A full-text reading of these 26 papers was then performed to ensure full alignment with the specific objectives of the study. Exclusion criteria at this stage included lack of methodological clarity ($n = 5$), a purely technical scope ($n = 6$), partial duplication ($n = 2$), and unavailability of the full text ($n = 1$). After this process, 12 studies remained, representing the final corpus used for synthesis and analysis.

In accordance with the PRISMA 2020 framework, a flow diagram was incorporated to illustrate the selection process ($1,503 \rightarrow 102 \rightarrow 36 \rightarrow 26 \rightarrow 12$), ensuring transparency and replicability.

Based on the thematic and interpretive analysis, the selected studies were organized into three analytical categories derived from the specific objectives of the review:

- i. applications of artificial intelligence in accounting;
- ii. challenges and limitations of its adoption in organizational and professional contexts; and
- iii. impacts of intelligent automation on human skills, professional ethics, and the training of new accountants.



The macro trends discussed in the literature indicate that the technological revolution is not limited to the automation of tasks but profoundly reconfigures productive structures, institutional relations, and occupational dynamics. This phenomenon finds support in the accounting field, as changes manifest in three interrelated dimensions: the incorporation of artificial intelligence into professional practices, the challenges and limitations associated with its adoption, and the impacts of this transformation on the human and ethical skills of accounting professionals.

4. RESULTS AND DISCUSSION

The incorporation of artificial intelligence into accounting practices has revealed transformative potential by automating tasks and generating value from the analysis of large volumes of data. Its growing presence in audit routines expands the ability to identify risks, improves the efficiency of processes, and strengthens strategic decision-making, converting accounting into a more analytical and less operational axis (Murikah *et al.*, 2024). In this scenario, AI emerges as a disruptive force by improving the accuracy of financial reports, increasing the quality of decision support, and increasing the efficiency of accounting services, repositioning the role of the professional within organizations (Peng *et al.*, 2023).

This dynamic reflects a broader movement in the world of work, in which automation and artificial intelligence not only replace tasks, but create new roles and broaden the scope of competencies required of professionals. Eloundou *et al.* (2023) say that moving automatic tasks to other areas of the business moves people's work toward strategic and analytical tasks. However, Filippi *et al.* (2023) emphasize that technology affects more than one level, listed below: occupational, functional, and organizational. This means that people and tools need to learn new ways to work together. Likewise, the use of robotic process automation (RPA) among the public dedications reveals substantial value creation and standardization, releasing human assets to activities with high value added and showing that technological transformation is beyond industries as well as applications (Neto *et al.*, 2024). In addition to automating traditional tasks, artificial intelligence also transforms the fundamentals of transparency and trustworthiness by integrating with emerging technologies such as blockchain. This convergence reinforces traceability and trust in accounting information, in addition to expanding the ability of professionals to explore distributed data in more robust decision-making processes (Han *et al.*, 2023). In parallel, the application of AI in internal audit functions demonstrates substantial gains by reducing manual procedures, expanding the scope of strategic oversight, and enabling higher value-added services, aligned with the demands of a dynamic organizational environment (Wassie & Lakatos, 2024). These advances dialogue with contemporary discussions on algorithmic governance and accountability. The OECD (2025) emphasizes that automated decision-making systems introduce concerns about transparency and traceability, which increasingly require normative mechanisms capable of guaranteeing equity in sociotechnical systems. Zhang and Liu (2025) add that the algorithmic regime reorganizes workflows based on codified

rules, which enhances efficiency, but also requires greater human supervision. Butler (2025) also proposes the concept of algorithmic management learning, according to which systems learn from human behavior and continuously reorganize their processes, expanding the ethical and operational implications of these instruments. The effect of such relocations is also seen in the professional identity and the accounting job nature. Technological development spurred on by Industry 4.0 values as well as AI re-shaped jobs as well as skills, transferring accountants from manual tasks to analytical as well as strategic tasks with large efficiencies as well as precision advantages (Londono-Cardozo, 2025). Such observation is verified by the professionals themselves, who appreciate the advantage of technologies with the basis on AI as well as refer to their direct role that connects to modern accounting practice modernization as well as enhanced productivity (Banta *et al.*, 2022). This change is not merely technical, but also institutional and subjective. Santoni de Sio (2024) argues that the advancement of digital technologies redefines qualitative dimensions of work, affecting well-being, autonomy, and interpersonal relationships in algorithmically mediated environments. This scenario imposes on professionals the need for continuous adaptation and new cognitive skills to interpret and control intelligent systems. Furthermore, Sullivan (2024) emphasizes that automated decisions require translation into human meaning, introducing a hermeneutic dimension into the work that makes accountants not only executors but also interpreters of complex algorithmic systems. The digitalization promoted by emerging technologies, such as blockchain, RPA, big data, and cloud computing, together with artificial intelligence, also structurally redefines the business models of accounting firms. This digital revolution not only facilitates the improvement of the company's operational performance, but also opens up new possibilities for service innovation and organizational innovation, reinforcing the strategic role of accounting in the business ecosystem (Tiron-Tudor *et al.*, 2022). In the same vein, language models such as ChatGPT and LLMs expand the reach of AI applications in the accounting and finance fields, offering new possibilities for cognitive automation and supporting complex data analysis (Dong *et al.*, 2024). At last, the progression of cognitive computing that mimics the human mental processes without any open supervision supports this evolution through the provision of frontier technologies to cope with sophisticated accounting and management issues. Such technologies expand the field of artificial intelligence utilization in the accounting and finance area besides ushering new modes of accommodating, analysis, and exploitation of strategic information to facilitate decision making (Ao *et al.*, 2025). Thus, the set of studies shows that artificial intelligence transcends operational automation: it reconfigures the logic of accounting practice, boosts its digitalization, and increases its relevance in the organizational decision-making process. Category 2 – Challenges and Limitations of AI Adoption in Organizational and Professional Contexts Despite its transformative potential, the incorporation of artificial intelligence into accounting processes brings with it ethical and technical challenges that cannot be ignored. The presence of algorithmic biases, the lack of transparency in automated processes, and the risks related to



accountability and equity represent central barriers to their large-scale adoption, requiring the creation of appropriate regulatory frameworks and governance structures (Murikah *et al.*, 2024). Although AI demonstrates significant gains in efficiency and accuracy, its use through algorithms and complex data analysis also imposes practical challenges that demand attention from organizations and accounting professionals (Peng *et al.*, 2023). These obstacles are not limited to the accounting environment: they are part of a broader phenomenon that affects the world of work as a whole. As Filippi *et al.* (2023) point out, automation and artificial intelligence operate at multiple levels occupational, functional, and organizational which implies the need for new forms of coordination between humans and machines and raises questions about algorithmic transparency, decision-making accountability, and fairness in the workplace. Santoni de Sio (2024) reinforces this perspective by indicating that the expansion of digital systems requires normative structures capable of ensuring accountability and equity, challenges that are directly reflected in the accounting field when algorithms start to mediate critical decisions related to auditing and compliance. The adoption of technologies associated with artificial intelligence, such as blockchain, also faces resistance due to a lack of organizational maturity and ignorance of its structural implications. This caution reveals the need to deepen the understanding of the limitations and risks that accompany the implementation of these tools in the accounting environment (Han *et al.*, 2023). The literature evidences, for example, significant gaps in research on the use of AI in internal audit, highlighting the low adoption rate in different geographical contexts and the absence of comprehensive frameworks that guide its application effectively (Wassie & Lakatos, 2024). Another critical point lies in professional training. Accounting education faces the challenge of preparing new professionals for a highly dynamic digital environment, in which mastery of automated tools and analytical skills becomes indispensable. The need for curricular and methodological transformation emerges as a fundamental requirement to ensure that training keeps pace with technological changes (Londono-Cardozo, 2025). Although professionals do not perceive artificial intelligence as a direct threat to employment, they recognize the urgency of reskilling and are willing to adapt their skills to remain relevant in this new scenario (Banta *et al.*, 2022). These demands for reskilling dialogue directly with the analysis of Eloundou *et al.* (2023), who emphasize how the technological revolution expands the need for complementary skills and continuous training. In this sense, policies of continuous training and institutional adaptation are pointed out as central elements to ensure inclusion and social protection in the midst of the new configurations of the labor market, which reinforces the urgency of reviewing curricula and methodologies in accounting education. Additional challenges present themselves in the management and monitoring of multiple stakeholders in blockchain-based ecosystems, in the logistics associated with the integration of different technologies, and in the absence of legal frameworks regulating digital assets. These conditions make the scene complex for artificial intelligence adoption as it necessitates developing public policies as well as regulations

that define the minimum levels of safety, interoperability, and compliance (Garanina *et al.*, 2022). The rise of algorithmic management, highlighted by the OECD (2025), also introduces concerns about transparency, accountability, and traceability into algorithm-assisted decision-making processes, amplifying the regulatory and ethical challenges associated with AI adoption. Zhang and Liu (2025) go on to state that the regime of the algorithm redefines the workflows grounded on codified rationale and quantitative measures, with this compelling the institutions to readjust their practice of governance. Sullivan (2024), conversely, maintains that the workplace inclusion of algorithms necessitates the interpretative hermeneutic that can convert the automatic decision into meanings communicable on the human level something necessary also within accounting practices, wherein the automated decision should be capable of being auditable as well as defensible. In addition, digital transformation demands an articulated response between educational institutions, companies, and other social actors, creating synergies capable of accelerating professional training and ensuring the adaptation of the workforce to the requirements imposed by this new paradigm (Tavares *et al.*, 2023). In summary, the challenges associated with the adoption of artificial intelligence in accounting go beyond technical barriers: they involve ethical dilemmas, structural limitations, educational gaps, and the need for robust regulatory frameworks. Overcoming these constraints requires coordinated efforts between academia, the market, and society, in order to promote a safe and efficient transition towards an accounting model guided by smart technologies.

Category 3 – Impacts of Intelligent Automation on Human Skills, Professional Ethics and Training of New Accountants. The incorporation of artificial intelligence in auditing and accounting routines profoundly redefines the human role, bringing with it ethical dilemmas and practical consequences that go beyond operational efficiency. While increasing productivity and reducing errors, intensive automation can compromise professional diligence and the quality of accounting judgment by shifting the emphasis from human reasoning to reliance on data and algorithms. In addition, risks arise associated with the violation of privacy and the inappropriate use of personal information, which imposes the need to rethink ethical governance in the use of these technologies (Murikah *et al.*, 2024). These changes do not occur in isolation. The ongoing technological phenomenon has profoundly reconfigured not only the content of work, but also its subjective and social dimensions. Filippi *et al.* (2023) highlight that automation and artificial intelligence operate at organizational and institutional levels, promoting redistribution of tasks and changing power and authority relations in productive structures. This redistribution directly impacts the autonomy economic and social outcomes and agency of professionals, who start to work in hybrid ecosystems mediated by algorithms, requiring new forms of interaction between humans and machines and a repositioning of professional responsibilities. Technological evolution also changes the strategic scope of the accounting profession, bringing it closer to areas such as data analysis and decision-making. AI, by automating repetitive tasks, frees up time and resources for professionals to take on more value-



added functions, linked to planning and organizational decision support. This change expands the field of action of accounting and aligns it with global goals, such as the Sustainable Development Goals, by reinforcing its relevance in strategic and governance processes (Peng *et al.*, 2023). This is in line with the discourses of Eloundou *et al.* (2023); Zhang and Liu (2025) who explain that the algorithm regime reconfigures workflows based on codified reasoning and numerical measures, forcing institutions to reformulate their governance practices. Sullivan (2024), conversely, maintains that the workplace inclusion of algorithms necessitates the interpretative hermeneutic that can convert the automatic decision into meanings communicable on the human level something necessary also within accounting practices, wherein the automated decision should be capable of being auditable as well as defensible. The literature indicates that the profession tends to move away from mechanical tasks and focus on strategic and interpretive roles, which require greater cognitive sophistication (Londono-Cardozo, 2025). This need is in line with Santoni de Sio (2024), who argues that the ethical and normative dilemmas emerging in the digital age require not only technical expertise but also new structures of responsibility and accountability, especially when automated decisions directly impact economic and social outcomes. The perception of professionals in the area reinforces this need for adaptation. Although they do not consider AI a direct threat to employment, they recognize that survival in the market requires constant updating and development of new skills to operate automated solutions effectively and continue adding value to accounting services (Banta *et al.*, 2022). This implies a change in mindset and a continuous investment in education throughout one's career, with an emphasis on interdisciplinarity and the strategic use of technology. In the same sense, continuous training policies and adaptive educational models are therefore indispensable to deal with the accelerated pace of innovation and reduce inequalities resulting from the digital transition (Eloundou *et al.*, 2024). In addition, the impacts of AI extend to the field of internal auditing, as it offers instruments to improve risk assessment and compliance processes. Understanding the potential and limits of automation is essential to guide future

research, whether to guide auditors in making informed decisions using these tools and weighing the benefits and risks inherent in the process (Wassie & Lakatos, 2024). The development of algorithmic management is also reported by the OECD (2025) and Zhang and Liu (2025), which advances this argument by illustrating that organizational control mechanisms can be significantly transformed through the use of algorithmic mediation within supervision and evaluation procedures such that professionals must produce interpretive skills to convert automated resultant decisions into usable and verifiable information. To make sure that training meets the needs of the market, universities, businesses, and other social actors must work together to train a new breed of accountants who can handle digital environments that are complex and change quickly (Tavares *et al.*, 2023).

This need for structural alignment supports the idea that the technological revolution is not just about tools, but a systemic and normative event that means we need to rethink our jobs, ethics, and training methods in the age of AI (Sullivan, 202).

4.1. Theoretical Integration and Summary of Findings

From the perspective of the Resource-Based View (RBV), the incorporation of Artificial Intelligence (AI) into accounting practices represents not only a technological advancement but also the development of new organizational capabilities. The studies analyzed reveal that AI operates as a strategic resource that enhances efficiency, analytical capacity, and decision-making quality, generating competitive advantages through innovation and knowledge management. In this sense, the RBV lens enables the interpretation of artificial intelligence as an intangible asset that reconfigures the competencies, routines, and structures of the accounting field, promoting new forms of value creation and institutional adaptation.

Therefore, to strengthen the analytical clarity of the discussion, Table 1 summarizes the key findings of this review, linking each analytical category with its supporting evidence and theoretical implications under the RBV framework. This synthesis highlights how the use of AI in accounting reflects the dynamic relationship between technological resources, organizational capabilities, and strategic transformation.

Table 1. Summary of key findings, supporting references, and implications (RBV Perspective)

	Key Findings	Supporting References	RBV-Theoretical Implications
Applications of Artificial Intelligence in Accounting	AI automates repetitive tasks, enhances analytical capacity, and increases strategic value. Integration with blockchain and RPA improves transparency and efficiency.	Murikah <i>et al.</i> (2024); Peng <i>et al.</i> (2023); Han <i>et al.</i> (2023); Wassie & Lakatos (2024); Ao <i>et al.</i> (2025)	AI emerges as a strategic resource, reinforcing firms' dynamic capabilities and enabling the reconfiguration of processes for sustained competitive advantage.
Challenges and Limitations of AI Adoption	Algorithmic bias, lack of transparency, and weak governance hinder full adoption. Education gaps and institutional immaturity persist.	OECD (2025); Zhang & Liu (2025); Santoni de Sio (2024); Londono-Cardozo (2025); Tavares <i>et al.</i> (2023)	The effective use of AI depends on the organizational capacity to manage intangible assets, emphasizing the need for governance mechanisms to protect and develop technological competencies.



Impacts on Human Skills, Ethics, and Training	Automation redefines human roles, demanding new cognitive, ethical, and interpretive skills. Professional identity becomes intertwined with algorithmic decision-making.	Sullivan (2024); Banta <i>et al.</i> (2022); Eloundou <i>et al.</i> (2023); Filippi <i>et al.</i> (2023); Wassie & Lakatos (2024)	Human capital becomes the core strategic resource, and AI integration strengthens the organization's learning and absorptive capacities, aligning with RBV's view of sustainable advantage.
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5. CONCLUSION

The present study aimed to analyze the impacts of artificial intelligence on accounting, guided by the following research question: how has artificial intelligence impacted the practices, challenges, and cognitive requirements of contemporary accounting? Throughout the investigation, it was sought to understand how the incorporation of intelligent systems transforms not only the technical routines, but also the institutional and cognitive logic of the accounting profession, redefining competencies, ethical values and the very nature of professional judgment. The systematic review of the literature allowed us to map a rapidly evolving field, marked by significant technological advances, ethical and regulatory tensions, and structural changes that go beyond the operational dimension, reaching the epistemological core of accounting in the twenty-first century. Regarding the first specific objective to map the main domains and modes of application of artificial intelligence within accounting practice the results demonstrate that intelligent technologies increase efficiency, automate routine tasks, and strengthen strategic decision-making, thereby repositioning accounting as a high-value-added analytical axis. In relation to the second objective to examine the organizational and professional challenges and limitations that condition AI adoption the study revealed the presence of ethical, technical, and institutional barriers, including algorithmic bias, the absence of comprehensive regulatory frameworks, and deficiencies in professional training. These findings highlight the need for robust governance mechanisms and continuous capacity-building policies to ensure safe and effective integration of AI into accounting environments.

Finally, regarding the third objective — to assess the implications of intelligent automation for human competencies, professional ethics, and the training of new accountants the results indicate that the technological transition demands a profound curricular and methodological reconfiguration. It also requires the development of analytical and interpretive skills, critical thinking, and the ability to collaborate with intelligent systems, fostering a structural transformation in the professional profile and strategic role of accounting. In answer to the guiding question, we can see that AI not only automates processes but also redefines the content and meaning of accounting work, in addition to altering decision-making structures and imposing new ethical and regulatory parameters on the profession. This transformation, however, while full of opportunities, still faces significant challenges. This could open up promising avenues for future research.

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