Paradigm

Integrating RPA and AI-based Technologies into ERP Systems: Challenges, Implications and Future Perspectives

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Abstract. *The latest digital transformations have led organizations to integrate more and more Robotic Process Automation and artificial intelligence technologies to be implemented in ERP systems, analyzing how these technologies can contribute to optimizing organizational processes, increasing operational efficiency and improving decision-making capacity in the modern business environment.*
The paper explores the main challenges associated with integrating RPA and AI into ERP systems, including the technical complexity of implementation, the need for an adequate IT infrastructure, managing large volumes of data, and ensuring cybersecurity. It also highlights organizational challenges, such as resistance to change, lack of digital skills among employees, and the need to redefine professional roles, especially in the field of accounting and auditing.

The research method focused on a quantitative analysis, more precisely through bibliometric analysis using Biblioshiny. This research increases scholarly focus on ERP-enabled intelligent automation.

The future perspective highlighted in the paper suggests that ERP systems will evolve towards intelligent, autonomous platforms, capable of continuously learning and adapting to changes in the economic environment. The integration of RPA and AI will play a key role in the development of these systems, facilitating the transition from reactive to proactive and predictive processes.

In conclusion, the paper highlights the fact that although the integration of RPA and AI into ERP involves significant challenges, the long-term benefits outweigh these difficulties, contributing to the creation of more agile, efficient and innovation-oriented organizations. This transformation has major implications for the accounting and auditing profession, requiring the continuous development of digital skills and adaptation to the new requirements of the digitalized business environment.

Keywords: ERP systems, artificial intelligence, RPA, challenges, future profession, bibliometric analysis, AI agents.

Introduction

Digital transformations have led to numerous stakeholders putting pressure on organizations to prioritize and streamline their processes, reducing operational costs as much as possible and improving the quality of managerial decisions. The integration of artificial intelligence (AI) and Robotic Process Automation (RPA) in ERP systems is considered vital due to the need for rapid response to changes, highlighting the limitations of traditional ERP systems.

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Thus, the integration of emerging technologies, such as Robotic Process Automation (RPA) and artificial intelligence (AI), could become a strategic direction for modernizing and extending the functionalities of ERP systems. The functionalities offered by RPA allow the automation of repetitive, rule-based tasks, contributing to the elimination of human errors and increasing operational efficiency. AI technologies, including machine learning, natural language processing and advanced data analytics, provide organizations with the ability to leverage data in an intelligent way, generating predictive insights and supporting complex decision-making processes.

The integration of RPA and AI into ERP systems represents a massive transformation of the way organizations operate, moving from fragmented processes to automation. For example, financial processes such as account reconciliation, invoice processing, and financial reporting can be significantly automated, reducing execution time and increasing data accuracy. The goal of AI is to analyze financial and operational trends, helping to identify risks and opportunities much faster and more accurately than traditional methods.

Implementing ERP information systems is a complex process, there are still a number of major challenges that organizations face, both technically, organizationally, and culturally. From a technical point of view, organizations are concerned about data security and managing a large volume of data. Organizational and cultural challenges target staff resistance to change, as well as their lack of digital skills. However, it should be noted that digital transformation involves both the adoption of new technologies, the development of human capital, and the adaptation of organizational culture.

Another important aspect of the article is the implications for the accounting and auditing profession. Professional roles are being influenced by process automation and the use of artificial intelligence (AI), shifting the focus from operational activities to analytical and strategic activities. Thus, accounting and auditing professionals will need to acquire new skills, including in the field of data analysis, digital technologies and the interpretation of results generated by intelligent algorithms. Thus, the profession is developing, complemented by advanced analytical and digital skills.

This paper aims to comprehensively analyze the integration of RPA and AI technologies into ERP systems, highlighting both the benefits and challenges associated with this process. It also investigates the implications for organizational processes and the accounting and auditing profession, as well as the future prospects of these technologies within ERP ecosystems.

The paper is based on a review of recent specialized literature, complemented by a bibliometric analysis that allows understanding how organizations implement and use RPA and AI in ERP systems. Thus, the integration of RPA and AI is no longer just a competitive advantage, but a necessity for organizations that want to remain relevant in a dynamic and digitized economic environment. This transformation is redefining the way organizations operate and create value, with profound implications for all areas of activity, including the accounting and auditing profession.

While previous bibliometric studies have examined the integration of ERP systems with automation technologies from a broader Industry 4.0 perspective (e.g., Măldăreanu, 2025), the present study focuses more specifically on the relationship between ERP systems, artificial intelligence, robotic process automation and the accounting and auditing domains. In contrast to earlier analyses that mainly addressed technological and operational aspects of ERP-enabled automation, this research also considers themes related to financial reporting, governance mechanisms, risk management and the evolving role of accounting and auditing professionals. In

this way, the study provides a more focused overview of how intelligent automation technologies are discussed in the literature in relation to accounting and auditing processes.

Literature review

Recent articles have focused on topics related to the integration of Robotic Process Automation (RPA) and artificial intelligence (AI) technologies within ERP systems, indicating the importance of these technologies in ERP systems, as well as the challenges and opportunities faced by the accounting and auditing profession. The study by Ma (2025) highlights that the integration of artificial intelligence extends the capabilities of RPA, allowing the automation of more complex processes involving decision-making and operational optimization. Patrício et al. (2024) indicate that this technological combination not only increases operational efficiency, but also contributes to the development of sustainable business models, by optimizing resource use and reducing environmental impact.

Pokala (2024) shows that modern ERPs include AI technologies that allow workflow automation, predictive analytics, and supply chain optimization, leading to a substantial improvement in organizational performance. Dachepalli (2024) identified that "the role of technologies such as Natural Language Processing and Optical Character Recognition in automating data entry and validation, reducing errors and increasing information accuracy". Thus, the automation process reduces repetitive tasks, allowing specialists to focus on strategic activities. In the analysis carried out by Măldăreanu (2025), a significant increase in the number of publications on the integration of ERP with automation technologies can be highlighted, which reflects the growing interest of the scientific community in this field.

Benjelloun et al. (2025) indicated in their article that recent advances in artificial intelligence (AI) and robotic process automation (RPA) are fundamentally reshaping the roles of enterprise resource planning (ERP) systems within accounting and auditing functions, while highlighting persistent challenges related to data quality, implementation costs, skills shortages, and organizational resilience that prevent seamless integration. Similarly, Kassar and Jizi (2026) and Elnakeeb and Elawadly (2025) indicate numerous benefits of adopting AI and RPA in accounting and auditing, including increased operational efficiency, improved reporting quality, and automated decision support, along with important factors and limitations affecting current implementations.

From a management accounting perspective, Abbas (2025) indicates the transformative impact of digital and AI-based technologies on organizational structures, control systems, and professional skills. Complementing this perspective, Oyeniyi et al. (2024) demonstrated in their study that RPA plays a crucial role in automating routine accounting tasks and reallocating human effort towards analytical and decision-making activities with higher value.

Stratopoulos and Wang (2025) presented the strategic importance of these technologies and outlined promising directions for future academic research.

However, it should be noted that recent studies by Patrício et al. (2024) draw attention to issues related to data security, confidentiality and transparency of algorithms, highlighting the need for appropriate regulatory frameworks.

Looking ahead, the literature indicates that ERP systems will evolve towards intelligent AI-based platforms, which may be able to integrate data from multiple sources and support autonomous processes. Recent research by numerous authors on generative AI agents indicates that future ERP systems will be able to automate complex end-to-end processes, significantly reducing

processing time and error rates. This evolution marks the transition towards intelligent ERPs, characterized by adaptability and self-learning capabilities.

The main challenges and opportunities faced by employees of an organization are presented in table 1.

Table 1. Challenges and opportunities faced by employees of an organization

Challenges	Opportunities
● The complexity of technological integration of ERP systems with AI and RPA ● Data quality and governance ● Security and privacy risks ● Organizational resistance to change ● High implementation costs ● Lack of specialized skills ● Auditability and transparency issues	● Automating repetitive processes ● Predictive analytics and advanced decision support ● Improving corporate reporting ● Increasing operational efficiency ● Fraud detection and risk management ● Transforming the role of professional accountants ● Support for sustainability and ESG reporting

Source: Authors' own research

The integration of RPA and AI into ERP is an important step in the evolution of digital transformation of organizations. In the future, ERP systems will become increasingly autonomous, predictive and intelligent, combining process automation with advanced data analytics.

Cognitive ERPs are expected to develop, capable of learning from operational data and optimizing processes in real time. Also, the integration of emerging technologies such as machine learning, process mining and digital twins will transform the way organizations manage financial, operational and reporting processes.

In conclusion, the literature review (Graham & Nelson, 2025; Kassar & Jizi, 2025) highlights that the integration of RPA and AI into ERP systems can be considered a dynamic field with infinite potential for transforming organizations. Although they bring many benefits, successful implementation depends largely on overcoming technical, organizational and ethical challenges. The current literature indicates the need for further research, especially regarding the long-term impact of these technologies and the development of sustainable integration models.

Methodology

This study conducted bibliometric analysis to map the literature and identify research trends, intellectual structures, and emerging themes. The Web of Science Core Collection was selected because its selective indexing of high-impact journals and reliable citation metadata make it the preferred platform.

The bibliographic data were exported from the Web of Science and processed using the Biblioshiny, Bibliometrix package in R. Biblioshiny was used to clean the data, run descriptive statistics, and produce thematic maps, keyword networks, and factorial analyses.

The study combines quantitative and qualitative bibliometric methods. Quantitative analysis was used to measure publication trends, citation patterns and keyword frequencies. Through qualitative analysis, we interpreted the main themes, conceptual relationships, and the development of the literature over time.

Specifically, the analysis included performance analysis, keyword co-occurrence networks, thematic mapping, thematic evolution and factorial analysis based on multiple correspondence analysis. Combining descriptive and relational analyses gives a clearer picture of the literature.

Similar approaches have been used in previous studies on digital transformation, accounting information systems and intelligent automation, showing that bibliometric methods are suitable for analyzing evolving interdisciplinary fields (Aria & Cuccurullo, 2017; Donthu et al., 2021).

Previous studies used similar methods to map digital transformation and intelligent automation (Măldăreanu, 2025). We added accounting and auditing search terms to capture studies on ERP-enabled RPA and AI and their effects on financial reporting, governance, and roles.

Based on the identified research gaps, this study examines how the literature addresses the integration of intelligent automation technologies, including RPA and AI within ERP systems used in accounting and auditing contexts.In Table 2, the research questions and objectives carried out in the article were presented.

Table 2. Research questions and objectives for this article

Research questions	Research objectives
RQ1. How does the integration of RPA and artificial intelligence-based technologies into ERP systems influence operational efficiency, data management, and decision-making processes in organizations? RQ2. What are the implications of integrating intelligent automation technologies into ERP systems for the future role of accounting and auditing professionals and for the evolution of corporate reporting practices found in the specialized literature?	1. examining how prior studies discuss the adoption of ERP-enabled automation and its reported implications for accounting quality and audit effectiveness. 2. analyze how the literature addresses the impact of ERP-based automation on professional judgment, control mechanisms and risk management practices in accounting and audit processes.

Source: Authors' own research.

These objectives guide the formulation of research questions that explore the evolution of research on ERP-integrated automation, the dominant and emerging thematic areas, and the organizational and professional implications highlighted in prior studies.

To support the investigation of these research questions within a bibliometric framework, three research hypotheses were formulated. The first hypothesis posits a significant increase over time in the volume of scientific publications addressing the integration of RPA and AI-based technologies into ERP systems in accounting and auditing contexts. The second hypothesis assumes that artificial intelligence and robotic process automation constitute central and highly developed themes within ERP-related accounting and auditing research. The third hypothesis suggests that themes related to professional judgment, control mechanisms and risk management are increasingly interconnected with ERP-based automation and analytics-oriented technologies. These hypotheses are examined using a combination of performance analysis, keyword-based network analysis, thematic mapping and factorial analysis conducted through the Biblioshiny interface.

Results and discussions

We searched the Web of Science database using terms related to three main areas: ERP systems, accounting and auditing, and automation and artificial intelligence technologies. The final search string was formulated as follows:

TS = ((“enterprise resource planning” OR ERP OR “enterprise system” OR “enterprise software”) AND (accounting OR audit * OR auditing OR “financial reporting” OR “management accounting” OR “sustainability”) AND (“robotic process automation” OR RPA OR automation OR “business process automation” OR “intelligent automation” OR “artificial intelligence”)).

The initial search identified 112 publications. To improve the relevance of the dataset, we applied several inclusion and exclusion criteria. We limited the analysis to studies published between 2015 and 2025 in order to capture recent developments in ERP-based automation research. In addition, we included only articles and conference papers and excluded publications that were not directly related to accounting, auditing or intelligent automation within ERP systems.

In the second stage of the selection process, we refined the dataset to improve its relevance to the research topic. First, we applied a document type filter and kept only Articles and Proceedings Papers. This step reduced the number of records from 112 to 108.

Next, we limited the dataset to the Web of Science subject categories most closely related to the study. These included Business, Management, Business Finance and Economics, together with Computer Science: Information Systems, Interdisciplinary Applications and Artificial Intelligence. We also included Green and Sustainable Science and Technology.

After applying these filters, the final dataset consisted of 75 articles, which were used for the bibliometric analysis.

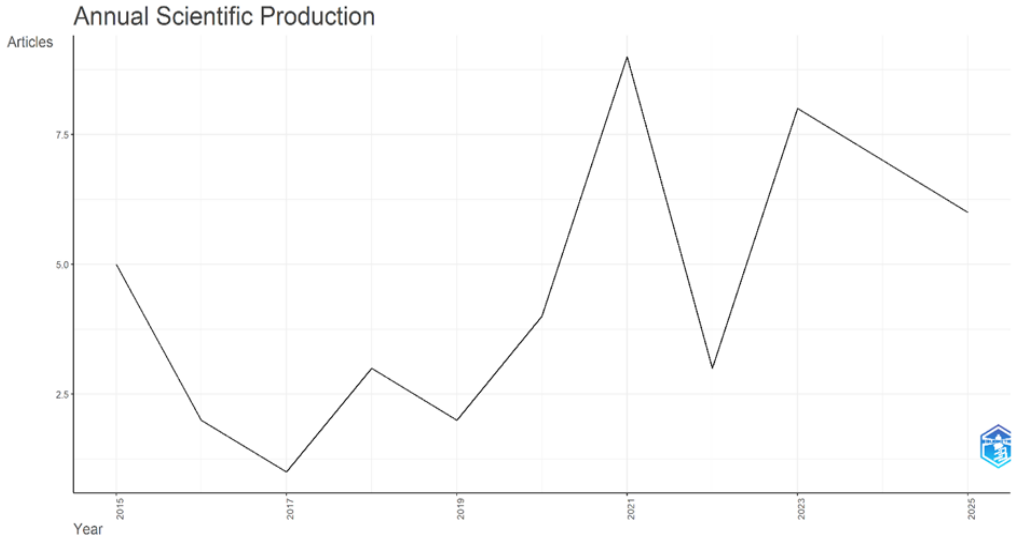


Figure 1. Annual Scientific Production

Source: Authors’ own research using Bibliometrix (Biblioshiny).

Figure 1 presents the annual scientific production related to ERP systems, accounting functions and automation technologies between 2015 and 2025. Research output was low and inconsistent through 2018, increased from 2019 onward, peaked in 2021, declined temporarily in 2022 and then recovered in the following years.

The 2021 peak may reflect the growing interest in digital transformation and the wider adoption of intelligent automation technologies in accounting and business processes. Overall, the results indicate a steady increase in academic interest in ERP-enabled automation research.

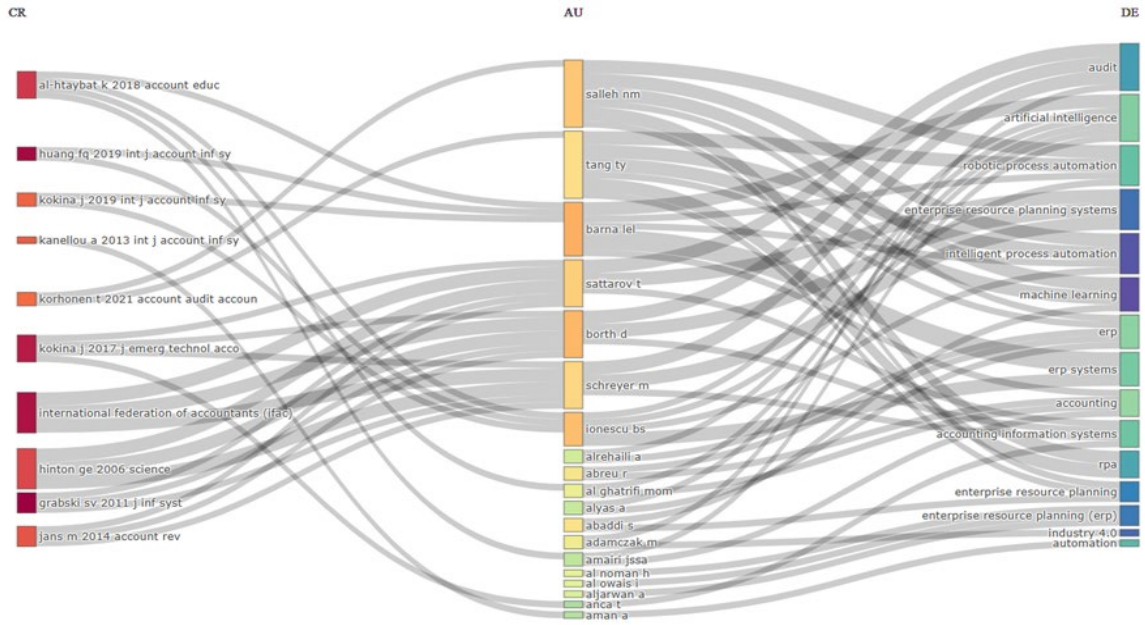


Figure 2. The relationships between the most influential cited references, authors and keywords
Source: Authors' own research using Bibliometrix (Biblioshiny).

Figure 2 presents a three-field plot illustrating the relationships between the most influential cited references, authors and keywords within the analyzed literature. The visualization highlights strong links between foundational studies in accounting and information systems and a core group of active researchers. The main keywords include enterprise resource planning (ERP), audit, accounting information systems (AIS), robotic process automation (RPA), and artificial intelligence (AI), which act as the main topics connecting multiple authors. These relationships reveal an interdisciplinary research structure that integrates accounting and auditing perspectives with developments in intelligent automation technologies. Overall, the figure demonstrates how seminal studies and influential contributors shape the main research streams in ERP-based automation research

Figure 3 shows a keyword word cloud of the most frequently used terms in the literature. Keywords such as ERP, artificial intelligence, analytics, management, and systems indicate a clear research emphasis on how ERP affects organizational and managerial functions. In addition, terms related to risk management, performance, fraud detection, and big data show the wider use of intelligent tools and advanced analytics in accounting and auditing. The presence of concepts linked to digitalization, enterprise systems, and emerging technologies further highlights the interdisciplinary nature of the field. Overall, the word cloud reflects a research landscape focused on evaluating the impact and business value of intelligent automation in ERP-enabled environments.



Figure 3. Word cloud

Source: Authors' own research using Bibliometrix (Biblioshiny).

Although the keyword word cloud shows which terms appear most often in the literature, it does not capture the relationships between them. To address this limitation, a keyword co-occurrence network analysis was performed to map the interconnections among ERP, accounting, artificial intelligence, and automation topics. This network analysis complements the word cloud by showing how the research field is organized and how major themes in ERP-enabled intelligent automation are linked.

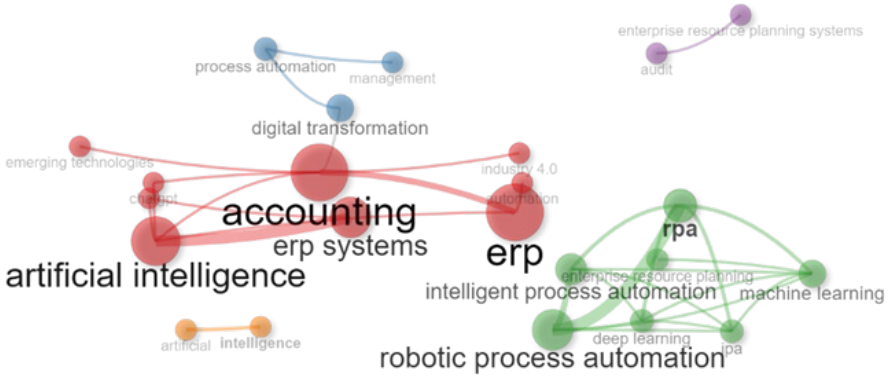


Figure 4. The keyword co-occurrence network

Source: Authors' own research using Bibliometrix (Biblioshiny).

Figure 4 depicts the keyword co-occurrence network and outlines the conceptual structure of the research field. The network centers on ERP, accounting, and artificial intelligence, confirming their dominant role in the literature. ERP systems are frequently associated in the literature with technologies such as machine learning, robotic process automation and intelligent automation, which highlights the increasing focus of research on the digital technology transformation dimension. The relationships identified between these concepts suggest that ERP is no longer analyzed exclusively as a tool for managing organizational resources, but as part of a digital system based on automation and intelligent data analysis.

The structure of the thematic clusters also indicates the existence of strong connections between ERP systems and robotic automation technologies. This aspect reflects the increased interest in the digitalization of accounting processes and the optimization of repetitive activities

within organizations. At the same time, the association between digital transformation, management and audit highlights the trend of convergence between technological and organizational components. This overlap suggests that the processes of implementing new technologies are analyzed not only from a technical perspective, but also through the impact on control mechanisms, decision-making processes and audit practices.

The central cluster, highlighted by the red color and the larger size of the nodes, suggests the existence of a dominant core, which can be associated with ERP systems. The size of the nodes indicates the importance or frequency of the appearance of certain concepts, which suggests that ERP remains the central element in the digital organizational architecture. The dense connections between the nodes in this cluster reflect the high degree of internal integration of the ERP modules (financial, accounting, human resources, supply chain), but also their interaction with emerging technologies.

In this context, the extensive connections between the red nodes and other clusters suggest the role of ERP as an integration platform for RPA and AI. RPA can be represented by intermediate nodes that connect repetitive processes in ERP with the automation of operational flows. This relationship indicates that RPA automates standardized work units and thereby enhances operational efficiency.

The green cluster highlights a high level of connectivity between the analyzed concepts. Algorithms, machine learning models and data sources frequently appear together in the specialized literature. The dense relationships between these terms reflect the greater complexity of digital technologies and their integration into organizational processes.

The results show that artificial intelligence-based technologies are mainly associated with advanced data analysis and decision-making support. The use of predictive models allows for faster and more relevant information for strategic decisions. In this context, ERP systems are no longer viewed only as management and reporting tools. They are gradually evolving towards the platform capable of supporting intelligent analysis and complex managerial processes.The connections between the green and red clusters highlight the integration of AI into ERP processes, such as predictive analytics, anomaly detection or process optimization.

The smaller blue cluster represents the technological or infrastructural support components, such as Cloud platforms or integration systems. Its positioning near the main cluster indicates its role as a facilitator of technological integration. In the context of RPA and AI implementation, IT infrastructure plays a crucial role, ensuring the scalability and interoperability of systems.

The purple cluster contains a few nodes and represents emerging concepts and future research directions, such as fully intelligent automation and the use of autonomous agents.

The relative isolation of this cluster indicates that these technologies are still at an early stage of development and remain less integrated into current ERP systems, despite their strong future potential.

The orange cluster is small and weakly connected, linking topics such as regulations, risks, and ethical issues. Positioned on the periphery of the network, these factors are not directly integrated into the technological architecture, yet they strongly shape how RPA and AI are implemented and used in ERP systems.

These findings provide the foundation for identifying dominant and emerging research themes, which are further examined through the thematic map analysis.

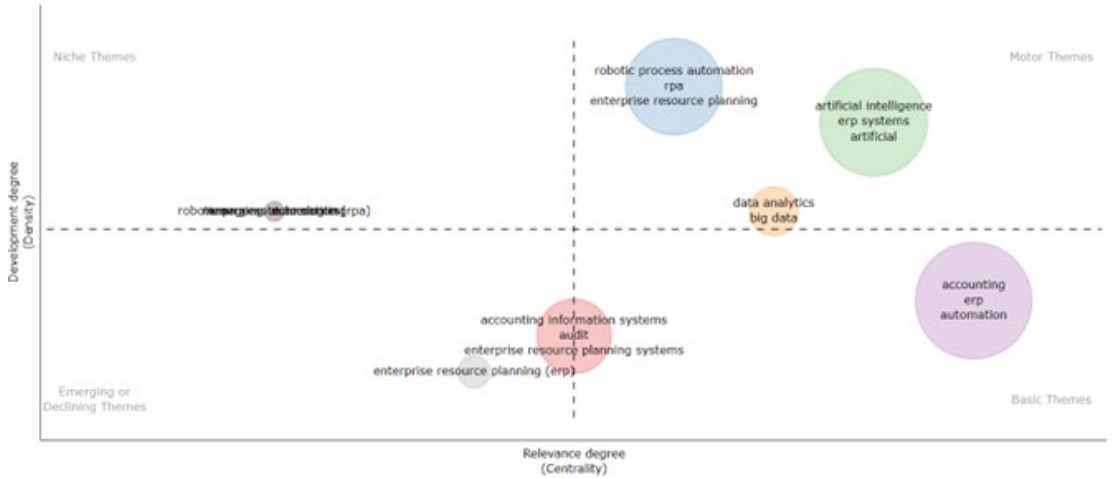


Figure 5. Thematic Map

Source: Authors' own research using Bibliometrix (Biblioshiny).

Figure 5 shows the thematic map based on centrality and density. Artificial intelligence and ERP (Enterprise Resource Planning) are motor themes because they combine high centrality with strong internal development, confirming their central role in the research field. RPA (robotic process automation) and ERP research also appear as mature, well-developed topics with sustained academic attention. In contrast, accounting automation and ERP-related accounting themes are classified as basic themes, reflecting their foundational importance but lower conceptual development. Additionally, themes related to data analytics and big data are positioned in the middle of the thematic map, suggesting that they are becoming more central to the field and may evolve into core research areas.

These findings show a shift from traditional ERP-centered accounting research toward AI-driven automation approaches, highlighting important directions for future research.

To further examine the structure of the research field, we used multiple correspondence analysis to map relationships between keywords. This method projects keywords into a multidimensional space and helps identify how specific concepts are positioned relative to one another.

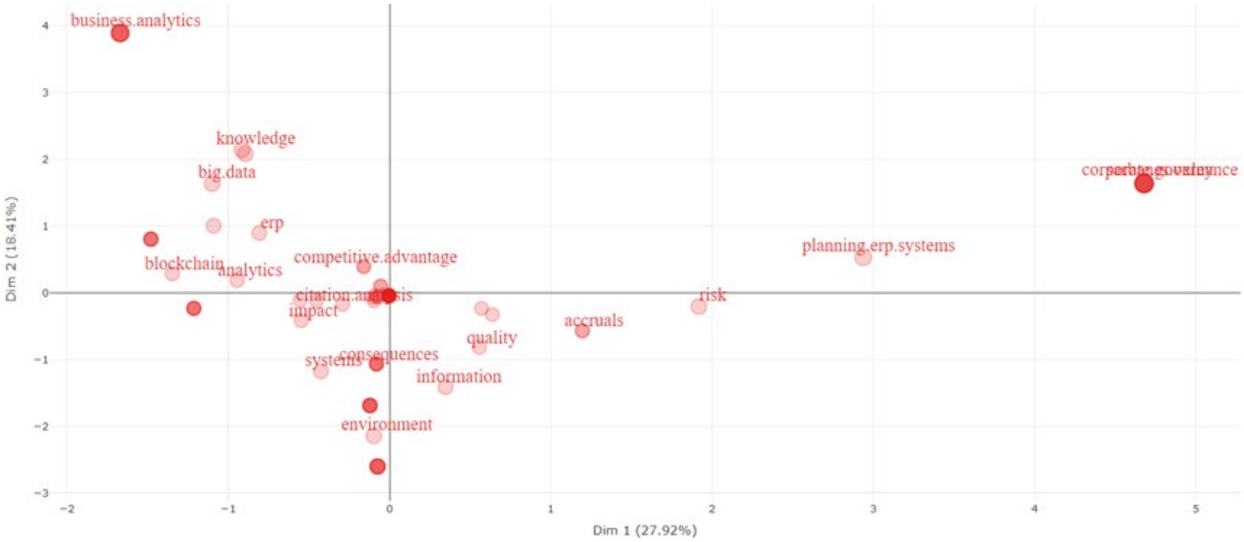


Figure 6. The factorial analysis of keywords based on multiple correspondence analysis
Source: Authors' own research using Bibliometrix (Biblioshiny).

Figure 6 illustrates the factorial analysis of keywords based on multiple correspondence analysis, depicting the conceptual structure of the research field across two main dimensions. The first dimension (Dim 1) highlights themes related to governance, risk and ERP planning, emphasizing the organizational and strategic implications of ERP-enabled automation. The second dimension (Dim 2) reflects a technological and analytical orientation, characterized by keywords such as business analytics, big data, blockchain and knowledge. Central terms such as ERP, impact, information, and quality appear near the origin, linking multiple research streams. The factorial map shows how the research field centers on the interaction between technological innovation and organizational value creation in ERP-based accounting systems.

Future research should combine advanced analytics with governance perspectives in ERP-based accounting automation.

Conclusion

The analysis of annual scientific production indicates a constant increase in interest in the integration of RPA-based technologies and artificial intelligence within ERP systems, a trend that becomes more evident starting from the period after 2019. The expansion of the number of publications and the diversification of the topics addressed suggest that intelligent automation is starting to be viewed as a relevant research direction in the context of the digital transformation of accounting and auditing activities.

The results obtained through the analysis of word clouds, co-occurrence networks and thematic maps show that artificial intelligence and robotic process automation occupy an important position in the conceptual structure of the analyzed literature. The high frequency with which these concepts appear in association with ERP systems indicates an increasingly accentuated orientation of research towards the development of data management and analysis models based on automation and intelligent technologies.

Similarly, factor analysis and co-occurrence relationships between terms highlight consistent connections between automation technologies integrated into ERP and topics such as risk management, internal control or modern audit practices. The association of concepts related to

governance, risk and professional reasoning with ERP planning and implementation suggests the existence of an interdisciplinary perspective, in which technological and decision-making processes are analyzed in an integrated manner.

The results of the bibliometric analysis confirm both the continued importance of ERP systems in organizational processes and the growing interest in emerging technologies associated with digital transformation. At the same time, the specialized literature highlights the fact that the implementation of AI and RPA-based solutions involves more than the simple adoption of technological tools. Their efficiency depends, to a large extent, on how organizations manage to integrate automated processes into existing structures and manage the challenges generated by technological changes.

The studies analyzed suggest that the use of RPA can contribute to the efficiency of repetitive and standardized activities, reducing the time required to process routine operations and limiting the risk of human errors. In parallel, the integration of artificial intelligence offers the possibility of more complex data analysis, facilitates the formulation of predictions and can support the decision-making process by providing relevant information in a timely manner. From this perspective, ERP systems tend to evolve from simple reporting and record-keeping tools to platforms capable of supporting decision-making processes and advanced analytical activities.

These developments can also have implications for the level of organizational transparency and the ability of companies to respond to compliance requirements and changes in the economic environment. The integration of AI and RPA-based technologies into the ERP infrastructure can contribute to increasing organizational flexibility and supporting processes more oriented towards innovation and adaptability.

Overall, the digital transformation associated with ERP systems goes beyond the strictly operational dimension and influences the way organizations manage information, processes and value creation mechanisms. In the field of accounting and auditing, this evolution is gradually shaping a framework in which intelligent technologies become an integral part of professional practices and analysis and control processes.

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References

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

Aria,M. & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959-975.

Benjelloun, M., Hmamed, H., Rzine, B., Dadda, A. (2025). Navigating Challenges When Integrating Artificial Intelligence with Enterprise Resource Planning: A Literature Review. *International Conference on Advanced Intelligent Systems for Sustainable Developent (AI2SD 2024).. Lecture Notes in Networks and Systems* (1403).

Dachepalli, V. (2024). A Smarter ERP: How Artificial Intelligence is Reshaping Enterprise Workflows. *Journal of Artificial Intelligence and Machine Learning*, 2(2). DOI: 10.55124/jaim.v2i2.265.

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W.M (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285-296.

Elnakeeb S, Elawadly HSH (2025;), Automation and artificial intelligence in accounting: a comprehensive bibliometric analysis and future trends. *Journal of Financial Reporting and Accounting*.

Graham, O., & Nelson, J. (2025). The Role of AI in Streamlining ERP Systems: Reducing Errors and Improving Efficiency, available at: https://www.preprints.org/manuscript/202504.0453, accessed at February 13, 2026

Kasar, M., & Jizi, M. (2025). Artificial intelligence and robotic process automation in auditing and accounting: a systematic literature review, Journal of Applied Accounting Research, 27(1), 217-241, https://doi.org/10.1108/JAAR-05-2024-0175

Kassar M, Jizi M (2026), Artificial intelligence and robotic process automation in auditing and accounting: a systematic literature review. *Journal of Applied Accounting Research*, 27 (1), 217–241.

Ma, S. (2025). A Review of Integration of Robotic Process Automation and Artificial Intelligence: Advancements, Applications and Challenges. *Applied and Computational Engineering*, 121, 161–165. DOI: 10.54254/2755-2721/2025.19845.

Măldăreanu, A. (2025). The Integration of ERP Systems and Technologies for Process Automation: A Bibliometric Analysis. *Proceedings of the International Conference on Business Excellence*, 19(1), 341–354. DOI: 10.2478/picbe-2025-0029

Oyeniyi, L.D., Ugochukwu, C.E., & Mhlongo, N.Z. (2024) Robotic process automation in routine accounting tasks: A review and efficiency analysis. *World Journal of Advanced Research and Reviews* , 2024, 22(01), 695–711

Patrício, L., Varela, L., & Silveira, Z. (2024). Integration of Artificial Intelligence and Robotic Process Automation: Literature Review and Proposal for a Sustainable Model. *Applied Sciences*, 14(21), 9648. DOI: 10.3390/app14219648

Pokala, P. (2024). The Integration and Impact of Artificial Intelligence in Modern Enterprise Resource Planning Systems: A Comprehensive Review. *International Journal of Computer Engineering and Technology*, 15(6), available at: https://ijcet.in/index.php/ijcet/article/view/60, accessed in February 13, 2026

Stratopoulos, T.C. & Wang, V.X. (2025) Artificial intelligence and accounting research: a framework and agenda. *International Journal of Accounting Information Systems*, 56.