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The Role of Autonomous Agent-Based ISA (Information Systems in Accounting) in Managing the Decentralized Accounting Cycle: A Socio-Technical Systems Approach

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Abstract: *This study aims to analyze the role of autonomous agent-based Information Systems in Accounting (ISA) in managing the decentralized accounting cycle using a socio-technical systems approach in the private sector. The background of this research lies in the increasing demand for speed, accuracy, and transparency in financial reporting within the competitive digital business ecosystem. This study adopts a qualitative method through in-depth interviews and document analysis, supported by thematic analysis for data interpretation. The findings reveal that autonomous agent-based ISA enhances transaction-processing efficiency, reduces recording errors, strengthens internal control, and provides real-time financial information for strategic decision-making. However, its effectiveness depends on the alignment between technological and social dimensions of organizations, including digital competence readiness, employee acceptance of automation, and role restructuring. This research concludes that agent-based accounting systems are not merely digital tools, but strategic infrastructures that shape long-term competitive advantage for private-sector firms.*

Keywords : agent-based ISA, artificial intelligence, decentralized accounting, private sector, socio-technical systems

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INTRODUCTION

The development of information technology has had a significant impact on various sectors, one of which is the accounting information system (AIS). Currently, with the increasing need for efficiency and accuracy in accounting processes, many organizations are switching to technology-based systems to manage the accounting cycle more effectively. In this context, autonomous agent-based ISA is a promising solution to overcome the challenges in managing a decentralized accounting cycle. This technology enables artificial intelligence-based agents to make automatic decisions in distributed financial data and transaction processing, which reduces dependence on human input and improves accuracy and transparency in financial reports (Cimini, 2020).

The application of autonomous agent-based ISA in decentralized accounting cycles is increasingly relevant, especially with the development of the concept of decentralization in various aspects of organizations. In decentralized systems, data control and management are distributed across various entities, adding complexity to the accounting process. However, intelligent agent-based technology can overcome this challenge by providing more efficient automation and data-driven decision-making capabilities. In this regard, research by Leng et al. (2023) in "ManuChain II: Blockchained smart contract system as the digital twin of decentralized autonomous manufacturing toward resilience in industry 5.0" describes how the application of decentralized blockchain-based technology can provide solutions to uncertainty and transparency in production systems, the relevance of which can also be applied in accounting (Leng et al., 2023).

Furthermore, Dattero-Snell (2023) in his dissertation "Appraisal of electric vehicle retrofit for transport decarbonization within agriculture" provides insights into how a holistic systems approach can be applied in other sectors, the relevance of which can be used in decentralized accounting cycle management.

Dattero-Snell (2023) emphasizes the importance of an approach that considers the interaction between technology and social factors, which is also at the core of the socio-technical systems approach that will be applied in this study. This study aims to fill the existing research gap by applying the concept of socio-technical systems in the context of autonomous agent-based ISA to manage decentralized accounting cycles.

Existing gaps in previous research, as indicated by Cimini (2020), who focused more on the manufacturing sector, and Vakilzadeh et al. (2024), who discussed the use of multi-agent systems in accounting and auditing, show that the application of technology-based agents in accounting is still limited to certain sectors. This study will expand the application to decentralized accounting systems and combine a technological perspective with the social dynamics within organizations (Vakilzadeh et al., 2024). The novelty of this study lies in the combination of autonomous agent-based ISA with socio-technical systems theory and its application in managing decentralized accounting cycles. The main objective of this study is to analyze how the application of this technology can improve efficiency, transparency, and accuracy in managing decentralized accounting cycles, taking into account the interaction between technology and humans.

METHOD

This study uses a qualitative method because the objective of the study is not only to examine the relationship between variables, but also to gain an in-depth understanding of the social processes, interaction patterns, and meaning construction that are formed in the implementation of autonomous agent-based ISA in decentralized accounting cycles. This approach is appropriate for examining complex and contextual issues, where the application of technology cannot be separated from organizational conditions, work culture,

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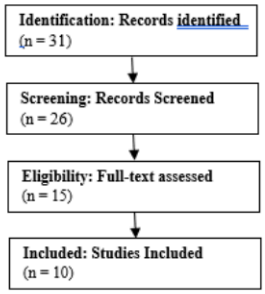
and human resource readiness. In this context, qualitative methods allow for a comprehensive exploration of the experiences, perceptions, and adaptation strategies of organizational actors in responding to changes in intelligent agent-based accounting systems, thereby producing substantive insights that cannot be obtained through quantitative methods (Bryman, 2016).

Data collection was conducted through in-depth interviews with stakeholders directly involved in decentralized accounting practices, including financial managers, accounting staff, internal auditors, and information system developers. In addition, organizational documents such as accounting SOPs, internal control policies, system documentation, and technology implementation reports were analyzed as supporting data to enhance the credibility of the findings. Data analysis used thematic analysis, as this technique allows for the identification of patterns, relationships, and recurring themes from narrative data, resulting in a comprehensive explanation of the social and technological dynamics accompanying the implementation of autonomous agent-based ISA (Braun & Clarke, 2019). The findings were validated through a process of cross-checking and narrative verification to ensure the accuracy of interpretations, data consistency, and the connection between themes and empirical contexts (Flick, 2018).

To strengthen the theoretical foundation of the research, literature selection was conducted using the PRISMA standard to ensure that only relevant and current scientific sources were reviewed. The selection process was systematic and transparent as follows: 36 studies identified → 31 studies after duplicate removal → 26 studies screened based on title and abstract → 15 studies eligible for full-text assessment → 10 studies included in the final synthesis. The use of the PRISMA approach ensures that the theoretical review of this research has strong academic validity, while also being consistent with the socio-technical systems perspective that forms the basis for the analysis and interpretation of the findings (Lincoln & Guba, 2016).



RESULTS AND DISCUSSION

The Role of Autonomous Agent-Based ISA in Optimizing the Efficiency and Accuracy of Decentralized Accounting Cycles in the Private Sector

The integration of *autonomous agent-based ISA* in the private sector brings fundamental changes to the accounting cycle workflow, especially in organizations that adopt decentralized authority and distributed decision-making across business units. The implementation of intelligent agents accelerates the flow of transaction recording, reconciliation, and report preparation through a computing system that works independently, without relying on repetitive manual instructions. This creates a significant increase in efficiency because the entire *record to report* process can be processed in parallel, rather than sequentially, thereby radically reducing the time required to process financial reports (Crowder & Carbone, 2016). This efficiency reflects a strategic advantage for organizations competing in the private market with its fast pace of transactions and dynamic changes.

In addition to reducing processing delays, the use of computational intelligence-based agents improves accuracy in transaction recording and expense classification because the algorithms work based on rule-based reasoning and machine-learning inference that comply with the organization's internal control principles. Agents can automatically validate supporting documents, detect inconsistencies in transaction postings, and perform real-time multi-entity reconciliation without human bias.

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This advantage is in line with the findings of Vakilzadeh et al. (2024) that multi-agent systems in accounting provide significant accuracy improvements in assessment, reporting, and auditing through task distribution automation and collective evaluation between agents (Vakilzadeh et al., 2024). This proves that agents are not just data processing tools, but *decision support mechanisms* that can reduce the risk of material errors in financial reporting.

The impact of this efficiency and accuracy is even more apparent in companies that operate in multi-branch, multi-regional, or complex supply chain networks, as agents can become computing nodes that coordinate account balance updates, inventory mutations, revenue recording, and decentralized contract assessment. When transactions occur at different points, agents can execute recording without waiting for central approval, which ultimately gives rise to a *smart accounting workflow* structure. The findings of Leng et al. (2023) regarding *blockchained smart contracts* in decentralized manufacturing reinforce the argument that agent-based decentralization accelerates organizational response in conditions of market volatility, as the system can automatically process changes following operational stimuli (Leng et al., 2023). Thus, *autonomous agent-based ISA* serves as a catalyst for accelerating organizational adaptation to market dynamics.

The application of agents in the private sector not only yields operational benefits, but also strengthens internal control and financial risk mitigation. Agents can be designed to flag transaction anomalies, check compliance with spending policies, and trigger automatic alerts if they detect deviations in transaction patterns that point to potential fraud. This capability is relevant to the findings of Campos et al. (2023) that the transformation of modern accounting systems towards automation and digital intelligence technologies has a direct contribution to improving financial governance and reporting reliability, especially in companies operating in a highly competitive arena (Campos et al., 2023). Therefore, agents play a strategic role in improving the financial transparency and accountability of private companies.

Furthermore, *autonomous agent-based ISA* provides long-term system sustainability because this technology has data-learning-based adaptability. When the operational structure changes—whether due to branch growth, supplier changes, or tax regulations—agents can update workflows and account classifications without completely changing the system architecture. This argument is in line with evidence from Kott et al. (2018), which shows that intelligent agent architecture enables autonomous systems to maintain high performance in dynamic environments because agents can react adaptively to cyber decision-making (Kott et al., 2018). In other words, agents create accounting systems that are not only efficient and accurate but also resilient to change.

Considering all these elements, it is clear that the role of autonomous agent-based ISA in the private sector is not limited to the digitization of transaction recording, but also creates a financial reporting mechanism that is time-sensitive, data-driven, risk-sensitive, and strategically aligned with the organization's competitive objectives. Effective implementation of agents in a decentralized accounting structure not only results in cost and time efficiency, but also improves the quality of managerial decisions because companies obtain relevant, up-to-date, and accurate financial information to determine business strategies.

Integrating Social and Technical Aspects in the Implementation of Autonomous Agent-Based ISA: A Socio-Technical Systems Perspective on the Private Sector

The transformation towards agent-based accounting in the private sector is not merely a technology project, but a process of reconstructing social-organizational systems that requires alignment between technological functions and human work behavior. The *socio-technical systems* perspective emphasizes that technology implementation only yields maximum benefits when technical and social systems are mutually supportive. As intelligent agents begin to take over

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administrative accounting tasks, there is a redistribution of authority, changes in job structures, and adjustments in inter-unit coordination patterns. This reinforces the findings of Yu et al. (2023) that the adoption of AI in the workplace is greatly influenced by technological readiness and the psychological readiness of the workforce, and that implementation fails not because of poor algorithms, but because of internal social resistance (Yu et al., 2023).

Social and technological integration becomes increasingly critical as automation shifts human roles from transaction executors to exception handlers and strategic analysts. This shift requires increased digital capacity and a data-driven work orientation that not all employees necessarily possess. A study by Zhao et al. (2022) found that digital system-based decentralization does improve task coordination, but it is only effective if the organization establishes a cultural transition program and incentive system to increase acceptance of change (Zhao et al., 2022). Thus, the success of agents is not only determined by the quality of the algorithm, but also by the organization's success in creating a competency structure and human-technology collaboration mechanisms.

To clarify the mechanisms for successful implementation of ISA-based agents, the following table summarizes the key social and technical factors that determine the effectiveness of socio-technical systems integration in private companies:

Table 1. Technical and Social Determinants of Socio-Technical System Integration in Digital Tax Administration

Category	Technical Requirement	Social Requirement	Impact on Success
Workflow Automation	Intelligent agent-based decision logic	Acceptance of new task delegation	High
System Integration	Interoperability and real-time data exchange	Cross-unit collaboration culture	High
Internal Control	Pattern-based anomaly detection	Trust in autonomous auditing process	Very High
Role Transformation	Adaptive learning and self-updating agents	Skills realignment and digital upskilling	Very High

The table shows that each technical factor has a social counterpart that determines the success of agent implementation. For example, decision logic in agents will not be effective without workers' acceptance of the delegation of authority, and anomaly detection will not improve governance without trust in automated auditing. This complementary relationship explains why many private companies do not enjoy the maximum benefits of automation despite having invested heavily in technology because the organization's social system lags behind the technical system (Azis et al., 2024).

In practice, the biggest challenge lies not in technological sophistication, but in the process of organizational change management. Employees who perceive agents as a threat to job security or as a form of oppressive digital performance assessment tend to reject the use of the system or manipulate processes to maintain their comfort zone at work. This is consistent with the findings of Lambyombar & Temalagi (2022), which show that the effectiveness of IT-based accounting systems in the public sector increases significantly when digital training and employee engagement strategies are carried out gradually and inclusively (Lambyombar & Temalagi, 2022). These findings are particularly relevant to the private sector, which faces higher competitive pressures and a faster pace of work.

Previous research also emphasizes that successful agent integration requires continuous evaluation of role redundancy and role evolution. When agents take over

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administrative tasks, companies must design new career paths such as system integration specialists, transaction anomaly analysts, and financial database curators. Nartey (2018) shows that digital accounting transformation requires competency restructuring policies so that technology does not merely reduce workloads but also increases the strategic capacity of the organization (Nartey, 2018). Therefore, organizations must view the implementation of agents not merely as a labor cost saving but as an opportunity to strengthen intellectual capital.

Thus, the socio-technical systems perspective emphasizes that *autonomous agent-based ISA* can only achieve maximum impact if organizations are able to manage cultural transitions, work structures, and employee expertise alongside technology. Ultimately, success lies not only in the agent's ability to process transactions automatically, but in the organization's ability to create synergy between digital intelligence and human intelligence to produce faster, more accurate, transparent, and strategic accounting processes.

Implications of Autonomous Agent-Based ISA Implementation for the Competitiveness of Private Companies in the Digital Business Ecosystem

The implications of implementing *autonomous agent-based ISA* in the private sector need to be analyzed from a competitiveness perspective because accounting technology is no longer just a recording tool, but a strategic infrastructure that shapes a company's competitive advantage in the digital era. When companies are able to provide financial reports more quickly, accurately, and transparently, the managerial decision-making process becomes more responsive to market dynamics such as fluctuations in demand, changes in raw material prices, and volatility in the global supply chain. This information advantage is a competitive advantage for companies competing in industries with tight margins and high volatility, as the ability to respond to changes based on real-time data has proven to be a key differentiator in the financial performance of modern companies (Crowder & Carbone, 2016). Therefore, accounting agents not only serve as administrative tools but also as sources of strategic information advantages.

The application of agents in the accounting cycle also increases a company's strategic agility, which is the ability to quickly update budgets, cash flow forecasts, and capital allocation policies based on the latest operational developments. This efficiency is particularly relevant in situations of market turbulence or when companies need to update their market orientation immediately. Agent technology enables financial scenarios to be simulated automatically through learning historical transaction patterns and business environment variables, allowing management to anticipate risks before their impact escalates (Vakilzadeh et al., 2024). This anticipatory advantage allows companies to manage risk proactively based on digital intelligence rather than reactively.

Beyond operational and anticipatory aspects, *autonomous agent-based ISA* has strong implications for a company's external competitiveness, particularly in building trust with investors, auditors, business partners, and financial institutions. A stable accounting system with *self-validation*, *self-adjusting accounts*, and *automated reconciliation* mechanisms strengthens a company's credibility because reporting errors can be reduced to near zero. In a competitive structure that increasingly relies on corporate transparency and traceability, the accuracy and reliability of accounting information becomes a factor in a company's bargaining power in accessing external financing, participating in tenders, and strategic collaboration with other business actors (Campos et al., 2023). Thus, ISA-based agents play a direct role in facilitating business expansion and diversification.

From an innovation perspective, the presence of agents in accounting systems also fosters new business models based on data interoperability and cross-divisional digital integration. Agents act not only as recorders but also as mediators of financial connectivity, linking sales, inventory, operational, and

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customer relationship data to generate comprehensive insights into business health. These implications are in line with the findings of Leng et al. (2023) regarding the success of digital twin ecosystems in manufacturing companies, which show that autonomous digital systems can improve business resilience through collaborative cross-process integration (Leng et al., 2023).

In the context of accounting, this integration results in real-time managerial accounting, which is the backbone of data-driven expansion and innovation strategies. However, the implications for competitiveness do not occur automatically without organizational readiness to manage structural and emotional changes in the work environment. When agents take over administrative tasks, some conventional positions lose their central functions, giving rise to employee anxiety and psychological resistance to automation.

This resistance can hinder system optimization if organizations do not prepare new competency pathways and reskilling–upskilling programs to facilitate role transformation. A study by Zhao et al. (2022) confirms that organizations that fail to manage role restructuring in digital transformation actually lose the benefits of automation because the time burden is shifted to managing internal social conflicts (Zhao et al., 2022). Therefore, agents only create competitiveness if technological transformation is accompanied by talent transformation.

Further implications are also seen in corporate risk management and internal control policies. The use of agents means that some control functions are transferred from humans to digital systems, so internal control design must be oriented towards transaction-based monitoring, rather than periodic manual inspections. Thus, companies need to develop a new internal audit policy framework, including override rules, data privacy controls, automatic anomaly reporting, and digital investigation procedures. This approach is in line with Nartey's (2018) findings, which state that organizations can only maintain digital accounting excellence if they are willing to develop internal governance that is adaptive to automation models (Nartey, 2018). This reinforces the view that competitiveness is not merely the result of system efficiency, but the ability of organizations to build a *fit ecosystem* between processes, people, and technology.

In addition, the long-term implication of using agents is the creation of strategic differentiation through organizational digital competence. Companies that successfully implement autonomous agent-based ISA from the outset will have a much more mature learning curve, historical data, and operational intelligence than competitors who still rely on manual or semi-digital accounting. As the data-driven economy becomes increasingly dominant, a company's ability to automatically process, transform, and interpret financial information will become a competitive advantage that is difficult to replicate. This is reinforced by a study by Yu et al. (2023), which confirms that organizations with balanced social-technological integration find increased labor productivity as well as long-term AI-based comparative advantages (Yu et al., 2023). Therefore, the application of agents in accounting is not a temporary trend, but rather the foundation of future business competitiveness.

Thus, the implications of implementing *autonomous agent-based ISA* for the private sector lie in three main areas: improving the quality of information for decision making, enhancing company credibility in the external business ecosystem, and developing long-term digital competencies to support competitive advantage. However, the success of its implementation requires systematic social-organizational change management, as technological advantages can only be optimized through the structural and psychological readiness of human resources.

CONCLUSIONS

The implementation of autonomous agent-based ISA in the decentralized accounting cycle has proven to have a strategic impact on private companies, not only because of its ability to automate transactions and minimize recording errors, but also because of its capacity to improve the quality of internal controls, the speed of report preparation,

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transparency, and managerial responsiveness to market dynamics. The discussion in the three subsections shows that intelligent agents act as a new accounting structure that works in parallel with humans, processes information independently, and strengthens data-driven decision making, thereby forming a more efficient, adaptive, and accurate financial reporting system in a digital business environment.

However, these benefits can only be achieved if the application of agent technology is carried out with careful socio-organizational planning through the integration of a socio-technical systems approach. The synergy between digital intelligence and human intelligence determines the success of implementation, especially in terms of technology acceptance, role restructuring, digital competency improvement, and automation-based risk management design. Thus, autonomous agent-based ISA is not merely an accounting digitization agenda, but a structural transformation agenda that forms the foundation of private companies' competitiveness in the long-term digital business ecosystem.

REFERENCES

Afiah, N. N. (2020). Akuntansi Pemerintah Daerah Berbasis Akrual pada Entitas Akuntansi: Konsep dan Aplikasi. Prenada Media.

Agusnur, A. (2025). Pemanfaatan Blockchain dalam Sistem Akuntansi untuk Transparansi dan Keamanan Data Keuangan. Jurnal Akuntansi dan Sistem Informasi, 1(1), 16-27.

Antika, E., Destarianto, P., & Riskiawan, H. Y. (2016). Sistem Multi-Agent Cerdas Penguji Perangkat Lunak Secara Otomatis. In Seminar Nasional Hasil Penelitian dan Pengabdian Masyarakat (p. 27).

Azis, T., Pontoh, W., & Korompis, C. W. (2024). Pengaruh desentralisasi terhadap kinerja manajer yang dimediasi oleh sistem akuntansi manajemen (Studi kasus pada dealer dan showroom di Kota Manado). Manajemen Bisnis dan Keuangan Korporat, 2(2), 259-269.

Cabukovski, V., Tentjanovski, R., & Golubovski, R. (2016). The University Library Information System Adaptability in an Intelligent Based University Environment.

Campos, F., Neves, V., Lobo, B., & Azevedo, G. (2023, June). Management accounting systems: A bibliometric analysis. In 2023 18th Iberian Conference on Information Systems and Technologies (CISTI) (pp. 1-6). IEEE.

Cimini, C. (2020). A roadmap for the integration of human workers and technology in the next generation manufacturing systems: a socio-technical perspective.

Crowder, J. A., & Carbone, J. N. (2016). An agent-based design for distributed artificial intelligence. In Proceedings on the International Conference on Artificial Intelligence (ICAI) (p. 81). The Steering Committee of The World Congress in Computer Science, Computer Engineering and Applied Computing (WorldComp).

Crowder, J. A., & Carbone, J. N. (2016). An agent-based design for distributed artificial intelligence. In Proceedings on the International Conference on Artificial Intelligence (ICAI) (p. 81). The Steering Committee of The World Congress in Computer Science, Computer Engineering and Applied Computing (WorldComp).

Dattero-Snell, D. (2023). Appraisal of electric vehicle retrofit for transport decarbonisation within agriculture: whole system approach (Doctoral dissertation, Cardiff University).

Febrianty, F., & Febriantoko, J. (2017). Pengaruh Implementasi Sistem Informasi Akuntansi Manajemen (Siam), Desentralisasi, Dan Kejelasan Sasaran Anggaran Terhadap Kinerja Penyusunan Anggaran Kabupaten Empat Lawang.

Kott, A., Théron, P., Drašar, M., Dushku, E., LeBlanc, B., Losiewicz, P., ... & De Gaspari, F. (2018). Autonomous intelligent cyber-defense agent (AICA)

OIKONOMIA Journal of Management Economics and Accounting
E-ISSN : 0000-0000
P-ISSN : 0000-0000 Vol. 3. No. 1, December 2025
E-ISSN : 3047-602X
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DOI : https://doi.org/10.61942/oikonomia.v3i1.497

reference architecture. Release 2.0. arXiv preprint arXiv:1803.10664.

Lambyombar, Y., & Temalagi, S. (2022). Pengaruh Sistem Informasi Akuntansi Berbasis Komputer dan Sistem Pengendalian Internal Pemerintah Terhadap Kualitas Laporan Keuangan Pemerintah Kabupaten Kepulauan Aru. Accounting Research Unit (ARU Journal), 3(1), 1-10.

Leng, J., Zhu, X., Huang, Z., Xu, K., Liu, Z., Liu, Q., & Chen, X. (2023). ManuChain II: Blockchained smart contract system as the digital twin of decentralized autonomous manufacturing toward resilience in industry 5.0. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 53(8), 4715-4728.

Muller IV, G. A. (2016). A meta-architecture analysis for a coevolved system-of-systems. Missouri University of Science and Technology.

Nan, C., & Sansavini, G. (2016). Developing an agent-based hierarchical modeling approach to assess human performance of infrastructure systems. International Journal of Industrial Ergonomics, 53, 340-354.

Nartey, E. (2018). Determinants of carbon management accounting adoption in Ghanaian firms. Meditari Accountancy Research, 26(1), 88-121.

Vakilzadeh, H., Eulerich, M., & Sanatizadeh, A. (2024). Multi-Agent Systems and Generative Agent-Based Models in Accounting and Auditing. Available at SSRN 5052723.

Yu, X., Xu, S., & Ashton, M. (2023). Antecedents and outcomes of artificial intelligence adoption and application in the workplace: the socio-technical system theory perspective. Information Technology & People, 36(1), 454-474.

Zhao, X., Ai, P., Lai, F., Luo, X., & Benitez, J. (2022). Task management in decentralized autonomous organization. Journal of Operations Management, 68(6-7), 649-674.

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