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Epistemic Displacement in Financial Accountability under Autonomous Algorithmic Accounting Architectures

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A R T I C L E I N F O

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A B S T R A C T

The development of autonomous algorithmic accounting architectures has transformed the practice of financial accountability through a shift in epistemic authority from human judgment to automated algorithmic systems. This condition raises problems related to transparency, decision legitimacy, and reduced interpretive role of accountants in the digital financial reporting process. This study aims to analyze the form of epistemic displacement in financial accountability in an autonomous algorithm-based accounting system. The research uses a qualitative approach with a critical interpretive design. Data was collected through in-depth interviews, digital system observations, and document analysis of 18 informants consisting of accountants, auditors, fintech developers, and corporate compliance officials. Data analysis was carried out using thematic analysis. The results show that algorithmic accounting systems reduce human interpretive intervention, weaken the audit trail, and increase reliance on algorithmic calculations that are difficult to verify. This study concludes that algorithmic transformation in accounting requires an adaptive governance framework and transparency standards to maintain the integrity of financial accountability in the digital age.

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INTRODUCTION

The development of artificial intelligence (AI) technology in the field of accounting has changed the way organizations process, verify, and present financial information. The integration of autonomous algorithmic accounting architectures allows the accounting system to carry out automatic recording functions, risk analysis, anomaly detection, and financial decision-making without direct human intervention. This transformation is driving increased efficiency, data processing speed, and predictive capabilities in modern accounting practices. However, behind these advances, there is an epistemic problem regarding the shift of knowledge authority from professional accountants to algorithmic systems that work in opaque or difficult to explain. These conditions pose serious challenges to transparency, auditability, and financial accountability in the contemporary digital ecosystem.

Globally, the use of AI in the accounting and finance sectors has increased significantly in recent years. The CPA.com report shows that accounting firms are starting to integrate generative AI, machine learning, and robotic process automation in auditing, financial reporting, and compliance monitoring activities. On the other hand, these developments raise concerns about the loss of human interpretive traces in the financial decision-making process. Bartsch et al. (2025) explain that the increasing autonomy of AI causes conceptual ambiguity in accountability because responsibility is no longer centralized on individuals, but is spread across a network of algorithmic systems.

In the Indonesian context, the adoption of AI in accounting and auditing has also experienced rapid development, especially in the fintech, digital banking, and data-based companies sectors. Nugrahanti et al. (2025) found that Explainable Artificial Intelligence (XAI) plays an important role in improving the quality of auditors' judgments through increasing the interpretability of algorithmic decisions. However, the study also shows that most institutions still rely on the model of black-box systems that are difficult for users to understand. This situation shows that the implementation of AI in the field of accounting has not been fully balanced with an adequate epistemic governance framework to maintain the integrity of financial accountability.

Although the study of AI in accounting is growing rapidly, most previous research has focused more on aspects of operational efficiency, audit quality, and automation of financial reporting. Abbas et al. (2026) highlight organizational and technological factors in the adoption of AI in accounting firms, while Aldemir et al. (2025) emphasize more on the benefits of AI to transparency and efficiency of public sector governance. These studies have not in-depth discussed how autonomous algorithmic accounting architectures create epistemic displacement, i.e. the shift of interpretive authority and legitimacy of accounting knowledge from humans to algorithms.

Another research gap can be seen in the lack of studies that connect accountability theory with epistemic problems in AI-based accounting systems. Bartsch et al. (2025) emphasized that research on accountability for AI systems is still dominated by conceptual approaches and has not explained much practical implications in the domain of accounting and financial reporting. Meanwhile,

Chappidi et al. (2025) show that algorithmic record-keeping practices can actually create accountability capture that changes the structure of supervision and distribution of responsibilities in digital organizations. The findings show the need to re-understand the concept of financial accountability amid the increasing dominance of autonomous algorithmic systems.

In addition, most previous research still places AI as an assistive technology, not as an epistemic actor that has the capacity to determine the validity of financial decisions. Mukherjee and Chang (2025) explain that agentic AI is able to make decisions independently and build an "algorithmic society" that has the potential to create ambiguity in responsibility attribution. In the context of accounting, this condition has implications for the weakening of the role of professional judgment which has been the main foundation of financial accountability and auditability practices. However, empirical studies of how such epistemic shifts occur in algorithmic accounting architectures are still very limited.

Based on these research phenomena and gaps, this study aims to analyze the form of epistemic displacement in financial accountability under autonomous algorithmic accounting architectures. This research specifically focuses on how autonomous algorithmic systems affect the distribution of knowledge authority, transparency of financial decisions, as well as changes in the structure of responsibility in digital accounting practices. This study also aims to identify the epistemic implications of the use of black-box algorithms on the legitimacy and integrity of modern financial reporting.

This research is expected to make a theoretical contribution to the development of accounting science, especially in expanding the discourse on algorithmic accountability, epistemic governance, and digital financial accountability in the era of autonomous AI. Practically, this research is expected to be a foundation for regulators, auditors, and business organizations in designing algorithmic governance frameworks that are more transparent, adaptive, and accountable. In addition, this research also contributes to the development of AI-based financial auditing and supervision standards that maintain professional integrity and public trust in digital accounting systems.

LITERATURE REVIEW

Autonomous Algorithmic Accounting Architectures in Digital Accounting Transformation

Digital transformation has driven fundamental changes in modern accounting practices through the integration of Artificial Intelligence (AI), machine learning, and autonomous algorithmic systems into financial reporting and supervision processes. This development has given birth to autonomous algorithmic accounting architectures, which are algorithm-based accounting systems that are able to carry out the recording process, classification of transactions, risk analysis, and financial decision-making automatically with increasingly limited human involvement. Abbas et al. (2026) explain that the development of AI in accounting has shifted the paradigm of accounting practice from human-centered accounting to data-driven accounting ecosystems that

place algorithms as the main actors in financial information management. These conditions show that algorithmic systems no longer function merely as administrative aids, but have become a new epistemic infrastructure in the production of accounting knowledge.

These changes also affect the organizational structure and financial decision-making patterns in digital companies. Li and Freeborn (2025) state that AI-powered accounting systems are creating a new form of digital accountability based on automation, data prediction, and algorithmic procedural legitimacy. In practice, financial decisions rely more on computational system calculations than on human professional interpretation. This situation shows that autonomous accounting architectures have created a reconfiguration of the relationship between technology, accountability, and knowledge authority in modern organizations.

The Concept of Epistemic Displacement in Algorithmic Accounting Systems

The concept of epistemic displacement refers to the shift of knowledge authority from humans to automated algorithmic systems. In the context of digital accounting, this phenomenon arises when the validity of financial decisions is determined more by AI calculations than by the professional judgment of accountants or auditors. Palese (2026) explained that the development of AI has established artificial truth regimes, which are conditions when institutional truth is produced through computational mechanisms that are difficult to verify humanly. This shows that algorithms have the capacity to build new epistemic authority that affects the legitimacy of information in digital organizations.

In accounting practice, epistemic displacement leads to reduced human interpretive involvement in the financial decision-making process. Mukherjee and Chang (2025) explain that autonomous AI systems have the ability to act independently in shaping organizational decisions, thus creating unclear attribution of responsibility. In the context of financial reporting, this condition has the potential to weaken the principles of transparency and auditability because decisions are made through black-box algorithms that cannot be fully explained to auditors or other stakeholders.

Algorithmic Accountability dan Financial Accountability

Algorithmic accountability theory developed in response to the increasing dominance of AI systems in organizational decision-making. Wieringa (2020) explained that algorithmic accountability includes the mechanisms of answerability, transparency, auditability, and responsibility in automated systems. This perspective emphasizes that AI systems must remain explainable, supervisable, and accountable even if their decision-making processes are complex. In the field of accounting, this concept is important because the quality of financial reporting is highly dependent on the traceability of the decision-making process and the clarity of the distribution of responsibilities.

Bartsch et al. (2025) added that AI accountability is multidimensional because it involves interactions between humans, data, algorithmic systems, and organizational structures. Therefore, financial accountability in autonomous accounting architectures can no longer be understood through traditional administrative approaches. The modern digital accounting system requires a

socio-technical governance approach that considers the relationship between technology, institutions, and organizational power. Under such conditions, financial accountability depends not only on the individual accountant, but also on the design and legitimacy of the algorithmic systems that the organization uses.

Transparansi, Auditabilitas, dan Explainable Artificial Intelligence (XAI)

One of the main challenges in autonomous accounting systems is the low transparency of the algorithmic decision-making process. Cobbe et al. (2021) explain that automated decision-making systems require a reviewability mechanism so that the resulting decisions can still be examined and evaluated legally and professionally. Without these mechanisms, AI systems have the potential to create an accountability vacuum due to the lack of clarity about who is responsible for financial decision errors. In the context of modern auditing, this condition becomes problematic because auditors need access to the logic and decision-making processes of the system to ensure the validity of financial information.

In response to these problems, the concept of Explainable Artificial Intelligence (XAI) developed to improve the interpretability of algorithmic systems. Nugrahanti et al. (2025) found that the implementation of XAI was able to improve the quality of judgment auditors through increasing the readability and transparency of algorithmic decisions. However, Rane et al. (2023) emphasized that explainability is not always able to eliminate algorithmic bias or solve the problem of responsibility distribution in AI systems. Therefore, the development of an AI-based accounting system requires the integration of technical transparency, institutional governance, and ethical oversight to maintain the integrity of financial accountability in the digital environment.

AI Governance and Digital Accounting Governance Reconstruction

The development of autonomous algorithmic systems drives the need for a more adaptive and accountable AI governance framework. Batool et al. (2023) explain that Responsible AI Governance emphasizes the principles of fairness, transparency, accountability, and explainability in the development of an organization's AI system. However, most AI governance models are still oriented towards technical and regulatory aspects, while the epistemic dimension in the formation of organizational knowledge legitimacy is still relatively under-paid.

Ribeiro et al. (2025) added that modern AI governance requires integration between governance mechanisms, stakeholder responsibility, and institutional legitimacy to ensure algorithmic systems remain within the limits of human control. In the context of accounting, such governance is important because AI-based financial decisions have a wide legal, economic, and social impact on organizations and the public. Therefore, the reconstruction of financial accountability in autonomous accounting architectures requires a multidisciplinary approach that combines technology, accounting, ethics, and governance perspectives to maintain the legitimacy of the digital financial system.

METHODOLOGY

Types of Research

This study uses a qualitative approach with a critical interpretive design to analyze the phenomenon of epistemic displacement in financial accountability in autonomous algorithmic accounting architectures. This approach was chosen because the research focuses on an in-depth understanding of changes in knowledge authority, transparency of financial decisions, and the transformation of accountability in Artificial Intelligence (AI)-based accounting systems. Aspers and Corte (2021) explain that interpretive approaches allow researchers to understand social and institutional dynamics in the modern digital environment. This research also uses a socio-technical systems perspective to look at the interaction between humans, algorithms, and organizations in digital accounting practices.

Population and Sample

The research population consists of accounting practitioners, auditors, fintech developers, and corporate compliance officials who use autonomous accounting systems in Indonesia. The sampling technique uses purposive sampling because the research requires participants who have direct experience in the use of AI-based accounting systems. The research sample amounted to 18 participants consisting of auditors, digital company accountants, fintech developers, and compliance officials. The number of participants was determined based on the principle of data saturation as explained by Hennink and Kaiser (2022), which is when the data has shown a consistent pattern and no significant new themes have been found.

Research Instruments

The research instrument is in the form of semi-structured interview guidelines compiled based on the concepts of algorithmic accountability, explainable artificial intelligence (XAI), and epistemic governance from Bartsch et al. (2025), Nugrahanti et al. (2025), and Wieringa (2020). The research also uses digital observations and documentation of company policies related to the use of AI in accounting. The validity of the data was tested through source triangulation and member checking, while reliability was maintained using trail audits during the research process.

Data Collection Procedure

Data collection was carried out through in-depth interviews, observation of AI-based accounting systems, and analysis of organizational documents. Interviews were conducted in person and online with an average duration of 45–60 minutes. All data is recorded, transcribed, and analyzed in stages from data reduction to thematic interpretation. The data collection process is carried out until it reaches the saturation point to ensure the adequacy of research information.

Data Analysis Techniques

Data analysis uses thematic analysis with a critical interpretive approach to identify epistemic displacement patterns in AI-based financial accountability. The stages of analysis include transcription, open coding, theme categorization, data interpretation, and drawing conclusions. The analysis process is carried out using NVivo 14 software to improve the systematization and traceability of research data.

RESEARCH RESULT

Shifting Knowledge Authority in Financial Decisions

The results show that autonomous algorithmic accounting architectures have created a shift in epistemic authority in modern accounting practices. Most participants stated that operational financial decisions now depend more on the output of AI systems than on the professional interpretation of accountants or auditors. The system is used to determine transaction classification, risk assessment, expense recommendations, and predict the company's cash flow automatically. Of the 18 participants, as many as 15 informants admitted that algorithm recommendations are often accepted without an in-depth evaluation process because they are considered faster and more accurate than manual analysis.

An external auditor explained:

"*Now the position of the auditor is more like checking whether the system is running normally, no longer really assessing transactions one by one as it used to be*." (AUD-04, interview, February 12, 2026)

Another informant said:

"*Management is more confident in the results of the AI dashboard because it is considered to be based on real-time data. Sometimes manual analysis from the accounting team is questionable if it is different from the results of the system*." (ACC-02, interview, February 13, 2026)

In addition, some participants admitted that they did not fully understand the logic of the decision systems that companies used.

"*We only accept the final result. If asked how the model arrived at a certain decision, honestly not all staff can explain*." (COM-01, interview, February 14, 2026)

"*There are conditions when the system flags a certain transaction as high risk, but the reason for the details is not clear on the dashboard*." (AUD-06, interview, February 15, 2026)

The findings show that the legitimacy of financial decisions is starting to shift from professional judgment to algorithm-based procedural legitimacy. This condition is different from the research of Nugrahanti et al. (2025) which still places AI as a decision-support system. In this study, AI was found to have become the main source of validation of organizational financial decisions.

Weakening Transparency and Audit Trail

Research has found that the use of black-box algorithms leads to a decrease in the transparency of the financial decision-making process. A total of 14 participants stated that they had difficulty explaining the basis of the system's calculations to internal auditors and regulators. Observations of digital systems

show that some accounting platforms only display the final output without showing the computational process in detail.

A compliance official stated:

"*The biggest problem is not the end result, but how to explain the algorithm's process to regulators. Sometimes the system just scores it for no reason that is really detailed*." (COM-02, interview, 18 February 2026)

Another participant added:

"*In the past, auditors could trace from journals to clear transaction evidence. Now some automated processes are directly processed by AI without a complete trace of analysis*." (AUD-03, interview, February 18, 2026)

"*When there is a data anomaly, accounting staff are often confused about whether it is a system error, an input error, or indeed the result of an algorithm analysis*." (ACC-03, interview, February 19, 2026)

In addition, some informants stated that the opacity of the system led to the emergence of excessive dependence on technology vendors.

"*If there is a model error or algorithm bias, usually the company has to wait for an explanation from the vendor because the company's own internal team does not really understand the source model*." (DEV-01, interview, February 20, 2026)

These findings show that autonomous accounting systems have the potential to create an accountability vacuum due to weak audit trails and limited human interpretation of the AI system computing process.

Redistribution of Responsibilities in Digital Accounting Systems

The results show that the implementation of AI in accounting changes the structure of responsibility distribution in organizations. A total of 12 participants stated that when financial errors occur, organizations have difficulty determining the responsible party because decisions are made through a combination of humans and automated systems.

A fintech developer explains:

"*If the system misreads the transaction pattern, it is usually difficult to determine who is responsible. The IT team feels like they're just making a model, while the user feels they're just using the system*." (DEV-03, interview, February 21, 2026)

Another informant said:

"*In the past, if there was an error in the report, the auditor or accountant was asked for clarification. Now the answer is often thrown into the system*." (AUD-05, interview, February 22, 2026)

"*Sometimes management says the decision comes from an AI recommendation, so the operational staff feels that they are not the ones making the main decision*." (ACC-01, interview, February 22, 2026)

In addition, research observations show that some organizations do not have clear governance standards regarding the distribution of responsibilities in the use of AI accounting systems.

"*There are no SOPs that really explain the limits of human and algorithmic responsibility when financial mistakes occur*." (COM-03, interview, 23 February 2026)

The findings show that autonomous accounting architectures have formed distributed accountability systems that are different from traditional accounting systems based on human accountability.

Organizations' Reliance on Algorithmic Calculations

Research has found that digital organizations are experiencing an increased reliance on algorithmic calculations in financial decision-making. A total of 16 participants stated that AI systems are considered faster, more consistent, and more efficient than manual analysis.

A digital company accountant stated:

"*Management now trusts AI dashboards more than manual reports because everything is considered real-time and more objective*." (ACC-05, interview, February 25, 2026)

Another participant explained:

"*If the system has given recommendations, usually decisions are made immediately without long discussions like in the past*." (ACC-04, interview, February 25, 2026)

"*The finance team is more focused on reading the system's output rather than conducting in-depth analysis independently*." (AUD-02, interview, February 26, 2026)

However, some informants also expressed concern about the over-reliance on automated systems.

"*There is a concern that at some point the system will experience major biases or errors, because most of the decision-making process is already too dependent on AI.*" (DEV-02, interview, February 26, 2026)

"*Junior staff are now more likely to immediately believe the results of the system without questioning the logic behind it*." (ACC-06, interview, February 26, 2026)

These findings show that the legitimacy of financial decisions is increasingly built on algorithm-based procedural legitimacy rather than human professional reasoning.

The Need for Explainable AI and Adaptive Governance

The results showed that most of the participants were aware of the importance of Explainable Artificial Intelligence (XAI) in maintaining transparency and integrity of financial accountability. A total of 13 informants stated that organizations need AI systems that are easier to explain and can be professionally audited.

An internal auditor explained:

"*AI does help speed up the audit process, but without an explainable system, auditors will struggle to ensure the integrity of financial decisions*." (AUD-01, interview, February 27, 2026)

Another participant added:

"*Companies need AI that is not only fast, but can also be explained logically when regulators ask for clarification*." (COM-01, interview, February 27, 2026)

"*Sometimes the AI output looks accurate, but the user still needs a reason why the system is making that decision*." (DEV-04, interview, February 28, 2026)

In addition, some informants assessed that the organization did not have adequate algorithmic governance.

"*The technology is evolving very quickly, but the company's internal rules are often lagging behind*." (COM-02, interview, 28 February 2026)

"*Companies are more focused on system efficiency than building governance and transparency of their algorithms*." (AUD-03, interview, March 1, 2026)

These findings show that autonomous accounting architectures require a governance framework based on transparency, explainability, and auditability to maintain legitimacy and trust in modern digital accounting systems.

DISCUSSION

The results of this study show that the application of autonomous algorithmic accounting architectures has changed the foundation of financial accountability from a system that originally relied on human professional judgment to a system that increasingly relies on algorithmic calculations. The finding that 15 out of 18 informants received algorithmic recommendations without in-depth evaluation shows a shift in epistemic authority in digital accounting practices. That is, the legitimacy of financial decisions is no longer primarily built through the considerations of accountants or auditors, but through trust in the output of a system that is considered faster, objective, and based on real-time data. This condition strengthens the concept of epistemic displacement, which is the transfer of knowledge authority from humans to automated systems. In the perspective of algorithmic accountability, AI systems must still be explainable, supervised, and accountable because algorithmic decisions are not completely neutral, but are influenced by model design, data quality, and organizational interests (Wieringa, 2020).

These findings also show that AI in accounting no longer serves as an administrative tool, but has become an epistemic actor that influences the validity of financial decisions. This can be seen from the use of AI systems for transaction classification, risk assessment, expense recommendations, and cash flow prediction. Conceptually, the findings broaden the understanding of financial accountability because accountability is no longer enough to be understood as the responsibility of individual accountants, auditors, or management, but rather as socio-technical relationships between humans, algorithms, data, technology vendors, and organizational structures. KPMG also emphasized that AI is transforming financial reporting and auditing processes through automation, data analysis, and efficiency improvements, but these changes still require human oversight so that the quality of reporting does not weaken.

The second finding suggests that the use of black-box algorithms undermines transparency and trail audits. A total of 14 participants had difficulty explaining the basis of the system's calculations to auditors and regulators. This condition is important because audits require not only final results, but also traceable process traces from inputs, processing logic, to decision outputs. When the system only displays scores, risk status, or final recommendations without adequate explanation, then the accountability process becomes incomplete. In this context, there is a risk of an accountability vacuum, which is a state when an organization uses AI results as the basis for decisions, but does not have a clear mechanism to explain how those decisions are formed. Finance Watch also highlights that the use of AI in finance can clash with the basic principles of accountability, responsibility, and transparency if the system works as a "black box" that is difficult to monitor.

The third finding relates to the redistribution of responsibilities in the digital accounting system. A total of 12 participants stated that when financial mistakes occur, it is difficult for organizations to determine who should be responsible. This happens because decisions are generated through a combination of users, AI systems, historical data, algorithmic models, and technology vendors. Theoretically, this condition supports the view that AI accountability is multidimensional, not individual. In traditional practice, financial statement errors can usually be traced to a specific accountant, auditor, or management party. However, in algorithmic systems, responsibilities become scattered so that organizations need a more assertive division of roles between business process owners, system developers, auditors, compliance officers, and management.

This finding has serious practical consequences. If an organization does not have SOPs that govern the boundaries of human responsibility and algorithms, then AI can be used as an excuse to avoid accountability. The informant's statement that "the decision comes from AI recommendation" shows a tendency to shift responsibility, which is the transfer of responsibility from human actors to technological systems. In fact, ethically and professionally, AI cannot be the subject of legal or professional responsibility independently. The UK's Financial Reporting Council even asserts that auditors cannot blame AI when there is an audit failure; The responsibility remains with the auditors and audit firms that use the technology.

The fourth finding shows the organization's dependence on algorithmic calculations. A total of 16 participants rated AI to be faster, consistent, and more efficient than manual analysis. These findings support the initial hypothesis that autonomous accounting systems improve the efficiency of financial decision-making. However, the results of the study also show a contradictory side, namely the increased risk of a decline in accountants' critical power, especially in junior staff who tend to accept system outputs without questioning the logic behind it. Thus, AI does speed up the accounting process, but at the same time it can reduce human interpretive capacity if it is not balanced with algorithmic literacy and adequate professional training.

The fifth finding confirms the importance of Explainable Artificial Intelligence and adaptive governance. A total of 13 informants stated that organizations need AI systems that can be explained and professionally audited. XAI is important because it allows users to understand, interpret, and trust the results generated by the AI model. IBM explained that XAI helps humans understand the results and outputs of machine learning algorithms, making it relevant to increase trust, transparency, and oversight in AI-based systems. In the context of auditing, Nugrahanti (2025) also shows that XAI can improve the quality of auditors' decisions by making AI-based insights easier to understand and reducing dependence on black box systems.

Scientifically, the main contribution of this research lies in the development of the concept of digital financial accountability through the lens of epistemic displacement. This research not only sees AI as an efficiency technology, but as a system that changes the structure of knowledge, legitimacy, and responsibility in

accounting. Thus, this study expands the study of digital accounting from mere automation to epistemic issues: who has the right to determine the truth of financial information, how it is constructed, and who should be held accountable when algorithmic decisions produce errors.

However, this study has some limitations. First, the number of informants is limited to 18 participants, so the results cannot be generalized to all industry sectors. Second, this research focuses on the experience of practitioners and has not conducted technical testing of the algorithmic model used by organizations. Third, access to source models, algorithmic parameters, and vendor documentation is still limited, so analysis of algorithmic bias cannot be done in depth. Therefore, follow-up research is recommended using a blended approach by combining interviews, technical audits of systems, algorithmic document analysis, and cross-sectoral comparative studies. Subsequent research can also develop an accounting AI governance model that contains the principles of transparency, explainability, auditability, human oversight, and a clear division of responsibilities between humans and systems.

CONCLUSIONS AND RECOMMENDATIONS

This study concludes that the application of autonomous algorithmic accounting architectures has created a shift in epistemic authority in modern accounting practice, where the legitimacy of financial decisions increasingly depends on algorithmic calculations rather than human professional judgment. The results show that AI systems no longer function simply as administrative tools, but have become epistemic actors that influence the validity, transparency, and distribution of responsibilities in digital financial accountability. The use of black-box algorithms also leads to weakening audit trails, increasing organizational dependence on technology vendors, and the emergence of an accountability vacuum due to the lack of clarity on the responsible party when financial mistakes occur. On the other hand, AI implementations have been shown to improve the efficiency, consistency, and speed of financial decision-making, making organizations increasingly reliant on algorithm-based procedural legitimacy. Therefore, organizations need to build more adaptive AI governance through the application of the principles of transparency, explainability, auditability, and human oversight to maintain integrity and trust in the modern digital accounting system.

Although this study contributes to the development of the concepts of digital financial accountability and epistemic displacement in AI-based accounting, this study still has limitations in the relatively limited number of participants and does not include technical testing of the algorithm models used by organizations. In addition, limited access to system parameters and vendor documentation means that analysis of algorithmic bias cannot be carried out comprehensively. Therefore, further research is recommended to use a multidisciplinary approach and mixed methods by integrating algorithm technical audits, AI governance analysis, and cross-industry comparative studies to be able to produce a more comprehensive and applicable digital accountability model in the face of artificial intelligence-based accounting transformation.

ADVANCED RESEARCH

The follow-up research is expected to develop an AI governance model based on digital accountability by integrating aspects of algorithmic transparency, Explainable Artificial Intelligence (XAI), technology audits, and data protection regulations in AI-based accounting systems. In addition, future research also needs to examine the impact of the use of autonomous accounting systems on audit quality, auditor independence, and financial reporting legitimacy in various industrial and cross-country sectors.

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