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Review Article

AI-Driven Proactive Monitoring: Mitigating Agency Costs and Financial Risk

Raden Agrosamdhyo *

Sekolah Tinggi Agama Islam Denpasar, Indonesia

* Corresponding Author : ragrosamdhyo@gmail.com

Abstract. Background: In the domain of corporate governance, the separation of ownership and control generates significant agency conflicts, primarily manifesting as Earnings Management (EM). Traditional reactive auditing methods fail to detect manipulation concealed within unstructured data, leading to high agency costs and diminished stakeholder trust. Objective: This study proposes an "AI Proactive Monitoring Model" utilizing Generative Artificial Intelligence to fundamentally enhance the monitoring mechanisms of Agency Theory. Methods: The research employs a qualitative conceptual framework analysis. It synthesizes Agency Theory with the Technology Acceptance Model (TAM) and Systemic Risk Theory to construct a novel strategic governance model. Results: The proposed model shifts governance from periodic sampling to real-time, continuous analysis of total data populations. By cross-referencing structured financial data with unstructured communications (e.g., emails, contracts), the system generates "Risk Narratives" that contextualize anomalies and flag opportunistic behavior immediately. Conclusion: The integration of AI significantly reduces information asymmetry and moral hazard by creating a "panopticon" effect. However, successful implementation requires distinct regulatory frameworks to manage the systemic risks associated with algorithmic reliance.

Keywords: Agency Theory, Artificial Intelligence, Earnings Management, Financial Risk, Proactive Monitoring.

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1. Introduction

Background of the Problem

The fundamental challenge in modern corporate finance remains the Principal-Agent relationship. As defined by Jensen and Meckling (1976), the delegation of authority from owners (Principals) to managers (Agents) inherently creates a divergence of interests1111. This conflict frequently manifests as Earnings Management (EM), where agents opportunistically manipulate financial reports for personal gain, resulting in significant "Residual Loss" for stakeholders2. While digital transformation has accelerated, governance mechanisms have not kept pace.

Literature Review

Current literature indicates that intentional errors, such as fraud, damage stakeholder trust far more severely than technical mistakes3. While AI is transforming reporting and forecasting, a significant gap remains in utilizing it effectively for governance4444. Commerford et al. (2022) highlight that the traditional method of monitoring periodic financial statements is often inadequate in a fast-paced corporate environment, leading to persistent information asymmetry5.

Research Gap

A critical gap exists in the inability of current systems to correlate complex unstructured data (e.g., internal emails, contract amendments) with structured financial transactions in real-time6. Managers often conceal manipulation within the "narrative" or context of documents, which traditional quantitative auditing overlooks. Current governance is "human speed and sample-based" in a "machine speed and total population-based" world8.

Research Objective

This study aims to bridge this gap by proposing the AI Proactive Monitoring Model. The objective is to demonstrate how Generative AI can serve as a direct monitoring mechanism to deter moral hazard, reduce the cost of verification, and safeguard financial stability9.

2. Research Methods

Approach and Type of Research

This study utilizes a conceptual theoretical framework approach. It is a qualitative strategic analysis that synthesizes established organizational theories—specifically Agency Theory and Systemic Risk Theory—with contemporary technological adoption models like the Technology Acceptance Model (TAM) and Diffusion of Innovation10101010.

Subject of Study

The focus is on the corporate governance structure, specifically the internal audit and monitoring functions within large-scale enterprises characterized by high transaction volumes and complex principal-agent hierarchies.

Research Instrument

The proposed is the AI Proactive Monitoring Model. This conceptual model relies on the capabilities of Generative AI (e.g., Large Language Models like Gemini or ChatGPT) to process unstructured text and numerical data simultaneously\

3. Procedure and Analysis

The study follows a systematic analytical procedure:

1. Problem Identification: Diagnosing the failure of traditional audits to catch "narrative-based" fraud
2. Strategic Integration: Applying AI capabilities to the "Monitoring" pillar of Agency Theory to create a self-correcting governance structure.
3. Impact Analysis: Evaluating the proposed model against Systemic Risk Theory to identify potential market wide externalities.

4. Results and Discussion

The AI Proactive Monitoring Model

The core finding of this research is a novel governance framework designed to operate in real-time. Unlike traditional audits that review past events, this model functions as a continuous, proactive observer.

1. Contextual Anomaly Generation: The system utilizes Generative AI to analyze

unstructured data (management emails, meeting minutes) alongside numerical ledgers[16]. It detects inconsistencies where the "story" does not match the "numbers." For example, it can flag ambiguous language in emails used to justify aggressive revenue recognition[17].

2. Policy Compliance Verification: The AI is trained on internal governance policies and complex contracts. It automatically cross-references transactions against these texts, identifying deviations that suggest opportunistic behavior.

Discussion and Theoretical Implications

The deployment of this model directly strengthens the monitoring capacity of the Principal. By generating a focused "Risk Narrative"—a concise summary of suspicious patterns delivered to the Audit Committee—the model reduces the complexity of data into actionable intelligence19191919. This aligns with the Technology Acceptance Model (TAM); for such a system to be effective, it must be perceived as useful by auditors, automating tedious tasks to allow human experts to focus on judgment-based investigation20.

Strategic Impact

Implementing this model offers tangible strategic benefits:

1. Deterrence of Moral Hazard: The awareness that an AI is continuously analyzing context creates a "panopticon" effect, deterring managers from attempting manipulation.
2. Lower Cost of Capital: Enhanced reliability of financial reports increases investor confidence, reducing the risk premium and the overall cost of raising funds

Limitations

While effective for internal fraud, the widespread reliance on identical AI models could introduce Systemic Risk. If multiple firms use the same algorithms, unintended feedback loops could trigger market-wide instability, necessitating robust regulatory oversight.

5. Conclusion

This research concludes that the integration of Artificial Intelligence into corporate governance is not merely a technological enhancement but a critical strategic necessity to resolve the enduring conflict of Agency Theory. The study identified that traditional monitoring mechanisms—characterized by periodic, reactive audits and a reliance on structured numerical data—are fundamentally ill-equipped to detect modern Earnings Management, where manipulation is often concealed within the unstructured "narrative" of corporate communications. Consequently, the persistence of Information Asymmetry has allowed Agents to exploit legacy systems, resulting in significant residual losses for stakeholders.

To address this critical gap, this study proposed the AI Proactive Monitoring Model, a novel framework leveraging Generative AI to execute real-time, continuous auditing of the entire data population. By synthesizing unstructured data (such as internal emails, meeting minutes, and contracts) with financial transactions, the model generates context-aware "Risk Narratives". This capability effectively bridges the information gap between Principals (owners) and Agents (managers) by flagging inconsistencies between a company's financial numbers and its internal operational reality. The transition from reactive sampling to

proactive, total-population monitoring creates a powerful deterrent against Moral Hazard, as the perceived probability of detection rises significantly.

Strategically, the adoption of this model offers profound benefits beyond fraud detection. It fosters a culture of transparency that enhances the reliability of financial reporting, which in turn lowers the cost of equity capital by reducing the risk premium demanded by investors. However, this transformation is not without risks. As highlighted by Systemic Risk Theory, the widespread homogenization of AI algorithms could inadvertently synchronize market behaviors, leading to potential liquidity crises or flash crashes if not properly managed.

Therefore, the study implies that the future of AI in accounting depends not on replacing human judgment, but on a "Man + Machine" collaborative approach. While the AI Proactive Monitoring Model provides the necessary tools to detect complex fraud in the digital economy, its implementation must be supported by robust, synchronized global regulations to mitigate systemic instability. Ultimately, this research posits AI as the definitive mechanism for modernizing corporate governance, transforming the internal audit function from a reactive cost center into a strategic value driver that safeguards long-term organizational stability.

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