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Commentary

Agentic AI and Human–AI Collaboration in Auditing: Roles, Benefits, and Risks in the Korean Audit Market

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Artificial intelligence (AI) is rapidly transforming the auditing profession (Dong et al. 2023; Gu et al. 2024). Early applications primarily focused on automating routine tasks, such as journal entry testing or anomaly detection. More recently, advances in AI have given rise to agentic AI—systems capable of autonomous goal setting, iterative reasoning, and adaptive task execution (Li et al. 2025). Unlike traditional decision-support tools, agentic AI can actively participate in audit processes by identifying risks, proposing procedures, and generating documentation. This shift raises fundamental questions regarding auditor responsibility, professional judgment, and accountability. These issues are particularly salient in jurisdictions with strong regulatory oversight and high legal exposure for auditors. The Korean audit market provides a distinctive and informative setting in this regard. Korea is characterized by stringent auditor liability under the External Audit Act, intensive regulatory inspections by the Financial Supervisory Service (FSS), and a growing emphasis on audit process documentation and consistency. This commentary examines how agentic AI may be integrated into auditing through a human–AI collaboration framework, focusing on the roles, benefits, and risks of such collaboration in the Korean audit environment.

KEYWORDS

Agentic Artificial Intelligence,Human–AI Collaboration,Auditing,Audit Quality and Risk,Professional Judgment,Regulatory Environment,Korea Audit Market

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1 | INTRODUCTION

Artificial intelligence (AI) is rapidly transforming the auditing profession (Dong et al. 2023; Gu et al. 2024). Early applications primarily focused on automating routine tasks, such as journal entry testing or anomaly detection. More recently, advances in AI have given rise to agentic AI—systems capable of autonomous goal setting, iterative reasoning, and adaptive task execution (Li et al. 2025). Unlike traditional decision-support tools, agentic AI can actively participate in audit processes by identifying risks, proposing procedures, and generating documentation. This shift raises fundamental questions regarding auditor responsibility, professional judgment, and accountability. These issues are particularly salient in jurisdictions with strong regulatory oversight and high legal exposure for auditors. The Korean audit market provides a distinctive and informative setting in this regard. Korea is characterized by stringent auditor liability under the External Audit Act, intensive regulatory inspections by the Financial Supervisory Service (FSS), and a growing emphasis on audit process documentation and consistency. This commentary examines how agentic AI may be integrated into auditing through a human–AI collaboration framework, focusing on the roles, benefits, and risks of such collaboration in the Korean audit environment.

2 | AGENTIC AI IN THE AUDIT CONTEXT

2.1 | From Assistive Analytics to Agentic Systems

Most audit technologies currently used in practice function as assistive tools. They apply predefined rules or models and require auditors to interpret the results. Agentic AI differs in that it exhibits a degree of operational autonomy: it can decompose objectives, select analytical strategies, iterate based on intermediate results, and adapt to new information. In auditing, an agentic AI system may perform multiple interconnected tasks, such as scanning full transaction populations, cross-referencing prior inspection findings, and drafting preliminary issue summaries. These capabilities move AI beyond passive assistance toward active participation in audit workflows.

2.2 | Institutional Fit in Korea

The Korean audit environment emphasizes procedural rigor, documentation, and ex post accountability. Regulatory inspections frequently scrutinize not only audit outcomes but also whether auditors followed consistent and defensible processes. As a result, agentic AI is unlikely to be accepted as a substitute for professional judgment. Instead, its practical role is better understood as a process-enhancing agent that supports auditors in meeting regulatory expectations.

3 | ROLES OF AGENTIC AI IN HUMAN–AI COLLABORATIVE AUDITS

3.1 | Risk Assessment and Audit Planning

Risk assessment is central to auditing and increasingly shaped by regulatory enforcement trends. In Korea, recurring inspection findings often relate to revenue recognition, related-party transactions, and asset capitalization. Agentic AI can integrate firm-level data, industry benchmarks, historical enforcement cases, and prior inspection feedback to generate dynamic risk assessments. Unlike static models, such systems can update their evaluations as new evidence emerges, supporting more adaptive audit planning.

3.2 | Audit Execution and Monitoring

During audit execution, agentic AI can function as a continuous monitoring agent, examining full populations rather than samples. This aligns with regulatory expectations in Korea, where inspectors often question the adequacy of traditional sampling when advanced analytics are available. By generating follow-up tests and revising its focus, agentic AI may help auditors identify issues earlier in the audit cycle, reducing last-minute adjustments and inspection risk.

3.3 | Documentation Support

Documentation quality is a persistent challenge in the Korean audit market. Agentic AI can assist by drafting preliminary working papers, linking procedures to identified risks, and checking internal consistency. This function is particularly valuable in large audit firms (Ex: Big Four Accounting Firms) with frequent staff rotation and standardized methodologies.

4 | BENEFITS OF HUMAN–AI COLLABORATION

4.1 | Audit Quality and Consistency

A key benefit of agentic AI is its potential to reduce audit quality variability. In Korea, where quality dispersion across engagement teams remains a concern, agentic AI can embed firm-wide methodologies and inspection lessons into daily audit practice. By standardizing risk identification and procedural responses, agentic AI may enhance consistency while allowing human auditors to focus on judgment-intensive decisions.

4.2 | Human Capital Constraints

The Korean audit profession faces high junior staff turnover and uneven skill distribution. Agentic AI can serve as a cognitive support system, providing real-time guidance and explanations to less experienced auditors. While not a substitute for professional training, this support may shorten learning curves and improve resource allocation.

4.3 | Toward Continuous Auditing

Regulators increasingly emphasize early detection of financial irregularities. Agentic AI enables a shift toward continuous auditing, where risks are identified during the fiscal year rather than after year-end. This capability may also support the development of new assurance services, subject to independence constraints.

5 | RISKS AND CHALLENGES

5.1 | Automation Bias and Professional Skepticism

A central risk of agentic AI is automation biasing the tendency to over-rely on automated outputs. In hierarchical organizational cultures, such as those often observed in Korean audit firms, junior auditors may be reluctant to challenge AI-generated conclusions. Without explicit safeguards, agentic AI could weaken professional skepticism rather than strengthen it.

5.2 | Explainability and Regulatory Scrutiny

Korean regulators require auditors to clearly explain the basis for audit judgments. Black-box AI systems pose challenges in this respect. If auditors cannot articulate why an AI agent flagged—or did not flag—a particular issue, the use of such systems may increase regulatory risk. Accordingly, agentic AI adoption must be accompanied by explainability mechanisms, including transparent reasoning logs and clear documentation of human review and overrides. Under Korean law, audit responsibility rests solely with licensed auditors and audit firms. Agentic AI lacks legal personhood and cannot bear responsibility. As AI systems become more autonomous, auditors may be held accountable for decisions they did not fully originate. This tension underscores the need for governance frameworks that clearly define the scope of AI autonomy and mandate human oversight at critical points.

6 | IMPLICATIONS AND CONCLUSION

Agentic AI represents a significant evolution in audit technology (Xiong et al. 2025). In the Korean audit market, its potential benefits—improved quality, consistency, and efficiency—are counterbalanced by regulatory expectations and strict accountability standards. This commentary argues that agentic AI should be viewed not as a replacement for auditors but as a collaborator whose effectiveness depends on careful governance. The future of auditing in Korea will hinge on the profession's ability to integrate advanced AI systems while preserving professional judgment, skepticism, and public trust. Moreover, Korea is in the process of mandating non-financial disclosures, and the introduction of mandatory assurance requirements would create further scope for the use of AI agents in this domain.

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