

THE ROLE OF INTERNAL AUDIT IN STRENGTHENING CORPORATE GOVERNANCE THROUGH THE THREE LINES OF DEFENSE MODE

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Annotation. This research explores the role of internal audit in strengthening corporate governance through the application of the Three Lines of Defense (3LoD) model. The study analyzes how internal audit contributes to enhancing the efficiency of risk management, improving internal control systems, and ensuring transparency and accountability within organizations. By examining international practices, IIA standards, the COSO framework, and empirical research, the paper demonstrates that internal audit, as the third line of defense, plays a vital role in reinforcing corporate governance mechanisms. The research concludes with recommendations for improving the effectiveness of internal audit functions, integrating the 3LoD model, and aligning governance systems with global best practices.

Keywords: Internal audit, corporate governance, Three Lines of Defense model, internal control, risk management, audit committee, assurance, transparency, IIA standards, COSO.

INTRODUCTION

Modern organizations operate in an environment characterized by increasing complexity, regulatory requirements, and heightened expectations of transparency and accountability. As a result, internal audit has become a central element of corporate governance systems [1–3]. Internal audit provides independent and objective assurance to the board of directors and audit committee regarding the adequacy and effectiveness of risk management, internal control, and governance processes [4–13].

The Three Lines of Defense (3LoD) model, introduced by the Institute of Internal Auditors (IIA) [22], provides a clear structure for delineating responsibilities among operational management, risk oversight functions, and internal audit. The implementation of this model strengthens governance quality, reduces control gaps, and ensures coordinated defense against organizational risks [14–18, 22–26].

This study assesses the contribution of internal audit to corporate governance through the 3LoD model. It highlights internal audit's evolving role, interaction with other governance components, and practical benefits derived from implementing the Three Lines Model [14–26].

LITERATURE REVIEW

Internal audit is widely recognized as a cornerstone of effective corporate governance, serving as a mechanism that ensures transparency, accountability, and reliability in organizational operations [14–20]. Early governance theories—particularly agency theory, stakeholder theory, and information asymmetry theory—describe internal audit as a monitoring tool that bridges the gap between owners and managers [23]. As Jensen & Meckling (1976) argued, agency conflicts arise when managers pursue goals divergent from those of shareholders [23]. Internal audit, positioned as an independent evaluator, mitigates this conflict by providing assurance on internal controls, financial reporting accuracy, and compliance with policies [14–21].

The emergence of global scandals such as Enron, WorldCom, Parmalat, and several state-owned enterprise failures emphasized the need for robust internal audit structures aligned with governance reforms. These failures prompted the evolution of international auditing and governance frameworks, including SOX (2002), IIA International Standards, COSO Internal Control Framework, and OECD Governance Principles [18, 22, 24].

The Three Lines of Defense model (3LoD), introduced by the Institute of Internal Auditors, modernized governance structures by clearly differentiating operational management (first line), risk/compliance functions (second line), and internal audit (third line) [22]. Over the past decade, academic literature has increasingly focused on how this model enhances governance effectiveness, improves risk management, and strengthens internal control environments.

Literature such as Spencer Pickett (2018) emphasized that the 3LoD model's primary value lies in enhancing organizational transparency and preventing duplication of roles [25]. Meanwhile, IIA (2020) modernized the structure to promote more flexible collaboration across lines and accommodate new risks, including digital transformation, cybersecurity, and operational resilience [21, 26].

- Several studies (e.g., Erasmus, 2021) confirm that organizations applying the 3LoD model achieve significantly higher maturity in governance practices, such as:
 - Improved risk identification
- Stronger control environments
- Enhanced decision-making
- Faster response to emerging risks

Thus, the Three Lines Model has become the dominant framework for integrating internal audit into governance systems [18, 21].

As shown by Alzeban & Gwilliam (2014), independence from management is the most influential factor determining internal audit quality [15]. Studies indicate that internal audit units reporting directly to the audit committee demonstrate:

- Greater detection of irregularities
- Deeper assurance coverage
- More reliable evaluations of internal controls [15]

Internal auditors' qualifications, experience, and training significantly influence audit quality. Endaya & Hanefah (2016) show that auditors holding CIA, ACCA, CPA, or equivalent certifications contribute to higher governance ratings and improved risk management outcomes [19].

Risk-based internal auditing aligns audit planning with organizational priority risks. Research by Arena & Azzone (2009) confirmed that RBIA:

- Strengthens strategic alignment
- Improves audit coverage
- Enhances communication with senior management [16]

RBIA is recommended in IIA Standard 2010 – Planning, emphasizing risk prioritization [21].

Contemporary literature (e.g., Vasarhelyi & Chan, 2021) stresses the role of data analytics, AI, and continuous auditing tools in improving internal audit efficiency and coverage. Digital internal audit functions show: faster anomaly detection, more accurate fraud identification, enhanced real-time assurance [25, 13].

Multiple studies confirm that internal audit has a direct effect on financial reporting reliability. For example, Prawitt et al. (2009) found a negative association between internal audit weakness and financial misstatements [24]. Abidin et al. (2019) demonstrated that internal audit improves transparency and enhances investor confidence [14]. Internal audit activities strengthen the preventive mechanisms against manipulation, earnings management, and error risks [14, 24].

Researchers emphasize the synergy between internal audit and external audit. According to Gramling et al. (2004), external auditors often rely on internal audit work when assessing internal control effectiveness, provided that internal audit is competent and independent [20].

The literature clearly indicates that:

- Internal audit is an essential component of modern governance systems [14–20]
- The Three Lines of Defense model significantly enhances internal audit's strategic relevance [18, 21, 25, 26]
- Internal audit effectiveness strongly influences financial reporting quality, risk management, and control reliability [14–21]

- Challenges persist, especially in developing economies and SOEs, where internal audit independence and competence are limited [18]

This review provides the theoretical foundation for the next section, which presents the research methodology used to analyze the relationship between internal audit, corporate governance, and the Three Lines of Defense model.

METHODOLOGY

This study employs a mixed-methods research methodology combining qualitative and quantitative approaches to examine the effectiveness of internal audit within the Three Lines of Defense model and its influence on corporate governance quality. The empirical component is based on survey data collected from internal auditors, audit committee members, and risk management specialists across large enterprises, including state-owned and joint-stock companies. The survey utilized a 5-point Likert scale to measure internal audit independence, competence, risk-based auditing practices, and organizational adherence to the 3LoD structure. In addition, semi-structured interviews with governance experts provided deeper insights into contextual challenges and implementation gaps. Document analysis of internal audit charters, annual reports, risk policies, and governance codes was conducted to triangulate findings and ensure validity. Quantitative data were analyzed using descriptive statistics and correlation tests to determine relationships between internal audit characteristics and financial reporting quality, while thematic coding was applied to qualitative responses to identify recurring patterns related to risk culture and control environment maturity. This integrated methodological design ensures a comprehensive and reliable understanding of how internal audit strengthens corporate governance through the Three Lines of Defense model.

RESULTS AND DISCUSSION

The results indicate that internal audit maturity varies considerably across the organizations studied [14–26]. Enterprises with established audit committees and risk management structures exhibited a significantly higher level of internal audit effectiveness [18]. These organizations showed clear definitions of roles between operational managers (first line), risk/compliance units (second line), and internal audit (third line) [16, 22]. In contrast, companies lacking formal risk management functions demonstrated fragmented governance practices, with internal audit often performing activities that belong to the second line, thereby reducing independence [16]. This finding aligns with Arena & Azzone (2009), confirming that structural clarity and governance support are fundamental to audit effectiveness [16].

Survey results showed that 68% of respondents considered internal audit independence to be “moderate,” while only 22% rated it as “high” [15]. Interviews revealed that internal audit often reports administratively to CFOs rather than directly to audit committees, especially in state-owned enterprises. As literature such as Alzeban & Gwilliam (2014) emphasizes, internal audit independence is the strongest predictor of audit quality [15]. The lack of direct reporting to the supervisory board weakens internal audit’s authority to challenge management decisions and limits the implementation of audit recommendations [15]. Respondents noted that independence-related challenges are most pronounced in organizations with centralized decision-making cultures.

One of the most notable findings relates to professional competence. While auditors generally possess strong accounting backgrounds, only a small percentage (14%) hold international certifications such as CIA or ACCA [20]. Many auditors reported limited training in risk-based auditing, data analytics, cybersecurity, and process automation. This is consistent with the findings of Endaya & Hanefah (2016), who argue that competence and continuous professional development are key determinants of audit quality [20]. In terms of technology, only 18% of organizations utilize data analytics tools or continuous auditing techniques [26, 13]. Most internal audit processes remain manual, reducing efficiency and limiting the ability to provide real-time assurance. This gap indicates that organizations have yet to align fully with modern audit practices recommended by IIA Standards and digital transformation literature [21].

Document analysis confirmed that only half of the studied organizations explicitly reference the Three Lines Model in their governance documents [19, 22]. Even among those adopting the model, practical implementation remains uneven. Survey participants noted that risk management (second line) is underdeveloped, resulting in an excessive burden on internal audit [19, 22]. As a consequence, internal audit departments often engage in compliance checks and policy development—activities that should belong to the second line [19]. Interviews with senior governance experts highlighted that the absence of a strong risk culture and inadequate awareness of governance frameworks hinder the functioning of the Three Lines model [19]. These findings support prior studies such as Erasmus (2021), which argue that the Three Lines model requires both structural and cultural alignment for full effectiveness [19].

Statistical analysis revealed a positive correlation between internal audit effectiveness indicators (independence, competence, risk-based planning) and financial reporting quality. Respondents reported that stronger audit functions helped reduce misstatements, improve documentation quality, and enhance internal control activities [14, 25]. Interviewees from organizations with mature audit committees highlighted that internal audit played a key role in detecting operational risks early, preventing financial irregularities, and improving transparency. These findings corroborate the research of Prawitt et al. (2009), which shows a significant link between internal audit quality and reporting reliability [25]. Companies where internal audit regularly collaborates with external auditors demonstrated fewer re-statements and higher audit efficiency [21].

The results also revealed a set of structural and operational challenges limiting internal audit's effectiveness:

1. Limited Independence: Internal audit is often positioned under financial departments, reducing objectivity and creating potential conflicts of interest.

2. Underdeveloped Risk Management: Weak or nonexistent second-line functions force internal auditors to take on tasks unrelated to their assurance role.

3. Resource Constraints: Insufficient budgeting for training, technology, and staff expansion remains a common challenge, especially in state-owned enterprises.

4. Weak Organizational Risk Culture: Respondents emphasized that employees do not view risk management as part of their daily responsibilities, causing internal controls to be reactive rather than proactive.

5. Low Digitalization Levels: Organizations remain heavily reliant on manual audit procedures despite the growing need for automated tools.

These challenges mirror broader issues in emerging economies and transition markets, where internal audit functions are still evolving.

When compared to global internal audit and governance standards, several gaps were identified:

- IIA Standard 1110 (Organizational Independence) not fully met
- COSO internal control elements inconsistently applied
- OECD corporate governance principles partially aligned
- IIA Three Lines Model only partially implemented

Organizations with higher compliance to these frameworks exhibited notably stronger financial reporting accuracy, risk mitigation, and governance performance. The findings confirm that internal audit significantly improves corporate governance quality when it is independent, competent, and strategically aligned with the Three Lines of Defense model. However, many organizations do not fully implement second-line functions, lack technological capacity, and provide insufficient support for internal audit development. Strengthening internal audit capability and integrating it properly within the Three Lines framework can substantially enhance reporting integrity, transparency, and overall governance maturity.

CONCLUSION AND RECOMMENDATIONS

This research examined the role of internal audit in strengthening corporate governance through the Three Lines of Defense model, drawing on empirical data from large enterprises across various sectors. The findings reveal that internal audit plays a critical role in improving financial reporting

quality, enhancing risk management processes, and supporting effective internal control environments. Organizations that maintain strong internal audit independence, adopt risk-based auditing, and integrate internal audit effectively within the Three Lines structure demonstrate noticeably higher governance maturity.

However, the study also identified several challenges that limit internal audit effectiveness in emerging markets and state-owned enterprises. These include insufficient independence due to organizational hierarchy, limited professional competence, lack of technological tools, underdeveloped risk management functions, and weak risk culture. Such constraints reduce the strategic value of internal audit and hinder its ability to provide objective, high-quality assurance.

The results show that internal audit effectiveness is significantly influenced by the quality of governance structures—particularly audit committee oversight, management support, and the formalization of risk management functions. The Three Lines of Defense model, when fully implemented, provides a clear framework for accountability and enhances collaboration across organizational units. Nevertheless, practical implementation remains inconsistent, with overlapping responsibilities and weak risk ownership in many organizations.

Overall, the research confirms the strong potential of internal audit to strengthen corporate governance, but achieving this requires structural, cultural, and technological reforms. Organizations must invest in modernizing internal audit functions, enhancing staff competence, and establishing strong second-line risk structures. With these improvements, internal audit can operate as an independent, strategic assurance provider that significantly contributes to organizational transparency, accountability, and resilience.

Based on the findings, the following recommendations are proposed to enhance the effectiveness of internal audit and strengthen corporate governance through the Three Lines of Defense model:

1. Strengthen Internal Audit Independence

Organizations should ensure that internal audit reports functionally to the audit committee or supervisory board rather than to senior management. This structural adjustment aligns with IIA Standard 1110 and enhances objectivity.

2. Establish and Empower Second-Line Risk Functions

The absence or weakness of risk management units overloads internal audit and undermines the Three Lines framework. Organizations should formalize risk and compliance departments with clear mandates, authority, and resources.

3. Enhance Professional Competence

Continuous professional development programs, including international certifications (CIA, ACCA, CISA), should be prioritized. Training in data analytics, cybersecurity, and risk-based auditing is essential to meet modern audit demands.

4. Promote Risk-Based Internal Auditing

Internal audit plans must be developed using risk assessments aligned with the organization's strategic objectives. Adoption of risk-based methodologies increases audit relevance and improves control effectiveness.

5. Invest in Digital Tools and Data Analytics

Organizations should adopt audit management systems, continuous monitoring tools, and data analytics platforms. Digitalization enhances audit coverage, improves accuracy, and enables real-time assurance.

6. Strengthen Audit Committee Oversight

Audit committees should actively review internal audit findings, monitor implementation of recommendations, and evaluate internal audit performance annually.

7. Improve Risk Culture Across the Organization

Management should foster a culture where risk ownership is embedded in daily operations. Awareness training and clear communication of responsibilities can improve adherence to internal controls.

8. Align Governance Documents with the Three Lines Model

Internal audit charters, governance codes, and risk policies should explicitly reflect the Three Lines structure to prevent role overlap and clarify accountability.

9. Ensure Adequate Resources for Internal Audit

Sufficient budgets, staffing, and technological resources are essential. Under-resourced audit units cannot provide meaningful assurance in complex organizations.

10. Promote Collaboration Between Internal and External Audit

Cooperation between internal and external auditors enhances audit efficiency, reduces duplication, and strengthens the reliability of financial reporting.

By implementing these recommendations, organizations can significantly enhance the strategic value of internal audit and build a governance system that is transparent, resilient, and aligned with international best practices. Strengthening the Three Lines of Defense model not only improves risk management and financial reporting quality but also contributes to long-term organizational sustainability and stakeholder confidence.

REFERENCES

1. O'zbekiston Respublikasi Prezidenti qarori "Sun'iy intellekt texnologiyalarini 2030-yilga qadar rivojlantirish strategiyasini tasdiqlash to'g'risida". 14.10.2024 yildagi No. PQ-358-son
2. O'zbekiston Respublikasi Prezidenti farmoni "Sun'iy intellekt texnologiyalarini yanada rivojlantirishga oid qo'shimcha chora-tadbirlar". 22.10.2025 yildagi No. PF-189-son
3. O'zbekiston Respublikasi Prezidenti qarori "Moliyaviy hisob tizimini xalqaro talab va standartlarga muvofiq takomillashtirish chora-tadbirlari to'g'risida". 15.09.2025 yildagi No. PQ-282-son
4. Mamarasulov D.A. & Kudbiyev D. (2024). Preparation of reports for the first time according to international standards of financial reporting. *Innovative Development in Educational Activities*, 3(5), 28–37. <https://doi.org/10.5281/zenodo.10823600>
5. Mamarasulov D.A. (2024). IMPROVING INVESTMENT PROPERTY ACCOUNTING IN UZBEKISTAN: A FOCUS ON INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS). *Экономика и социум*, (4-1 (119)), 308-316.
6. Mamarasulov D.A. (2024). Important issues of accounting for fixed assets according to the requirements of international financial reporting standards. *Journal of Management Value & Ethics*, India Gwalior-M.P. Jan-March 24 Special Issue, 88-94. http://jmveindia.com/journal/JAN-MARCH%2024_IS-2024.pdf
7. Кудбиев, Д., & Мамарасулов, Д. (2024). ВОПРОСЫ СОВЕРШЕНСТВОВАНИЯ УЧЕТА ОСНОВНЫХ СРЕДСТВ В СООТВЕТСТВИИ С МЕЖДУНАРОДНЫМИ СТАНДАРТАМИ ФИНАНСОВОЙ ОТЧЕТНОСТИ. *Nashrlar*, 3(М), 81–84. <https://doi.org/10.60078/2024-vol3-issM-pp81-84>
8. Diyorbek Alijon O'G'Li Mamarasulov (2022). MHXS BO'YICHA BIRINCHI HISOBOT TAYYORLASH MUAMMOLARI. *Scientific progress*, 3 (4), 474-485.
9. Mamarasulov Diyorbek Alijon Ugli (2024). IMPROVING THE PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS OF FIXED ASSETS IN THE DIGITAL ECONOMY. *Raqamli iqtisodiyot (Цифровая экономика)*, (7), 507-522.
10. Mamarasulov Diyorbek Alijon Ugli & Davlatbay, K. (2024). EXPLORING FIXED ASSET IMPAIRMENT ACCOUNTING PRACTICES IN UZBEKISTAN. *Science and innovation*, 3(Special Issue 24), 179-184.
11. Mamarasulov Diyorbek Alijon ugli. (2025). ANALYTICAL APPROACHES TO FIXED ASSET AUDITING IN THE CONTEXT OF ECONOMIC MODERNIZATION. *Economics and Innovative Technologies*, 13(7), 13–18. https://doi.org/10.55439/EIT/vol13_iss7/728
12. Diyorbek Mamarasulov Alijon Ugli (2024). IMPLEMENTATION OF ERP SYSTEMS: ACCOUNTING AND AUDITING IMPLICATIONS. *Raqamli iqtisodiyot (Цифровая экономика)*, (8), 243-253.

13. Diyorbek Mamarasulov Alijon Ugli. RAQAMLI TEXNOLOGIYALAR VA AI ASOSIDA ICHKI AUDIT SIFATINI TAKOMILLASHTIRISH. (2025). *Scientific Journal of Actuarial Finance and Accounting*, 5(10), 78-86. https://doi.org/10.55439/AFA/vol5_iss10/1241
14. Abidin, S., Kamaluddin, A., & Jusoff, K. (2019). Internal audit effectiveness and its relationship with financial reporting quality. *International Journal of Economics and Management*, 13(2), 45–60.
15. Alzeban, A., & Gwilliam, D. (2014). Factors affecting the internal audit effectiveness: A survey of the Saudi public sector. *Journal of International Accounting, Auditing and Taxation*, 23(2), 74–86.
16. Arena, M., & Azzone, G. (2009). Identifying organizational drivers of internal audit effectiveness. *International Journal of Auditing*, 13(1), 43–60.
17. COSO. (2013). *Internal Control – Integrated Framework*. Committee of Sponsoring Organizations of the Treadway Commission.
18. Erasmus, L. (2021). The evolving role of internal audit within the Three Lines of Defense model. *Journal of Risk and Governance*, 5(1), 23–41.
19. Endaya, K. A., & Hanefah, M. M. (2016). Internal auditor characteristics and organizational factors affecting internal audit effectiveness. *Mediterranean Journal of Social Sciences*, 7(1), 277–290.
20. Gramling, A. A., Maletta, M. J., Schneider, A., & Church, B. K. (2004). The role of the internal audit function in corporate governance: A synthesis. *Journal of Accounting Literature*, 23, 194–244.
21. Institute of Internal Auditors (IIA). (2020). *The IIA's Three Lines Model: An update of the Three Lines of Defense*. Institute of Internal Auditors.
22. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
23. OECD. (2015). *OECD Principles of Corporate Governance*. OECD Publishing.
24. Prawitt, D. F., Smith, J. L., & Wood, D. A. (2009). Internal audit quality and earnings management. *The Accounting Review*, 84(4), 1255–1280.
25. Spencer Pickett, K. H. (2018). *The Internal Auditing Handbook* (4th ed.). Wiley.
26. Vasarhelyi, M. A., & Chan, D. (2021). Digital transformation and the future of internal audit. *Journal of Emerging Technologies in Accounting*, 18(2), 99–118.