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# The Influence of Internal Auditing Independence on Effectiveness of Corporate Governance in Public Sector Organisations – Case of Road Development Agency (RDA) in Zambia

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**Abstract**

This study examined the influence of internal audit independence on corporate governance effectiveness in public sector organisations, focusing on the Road Development Agency (RDA) in Zambia. A descriptive quantitative research design was adopted, targeting 70 respondents comprising board members, managers, supervisors, internal auditors, and other stakeholders from RDA's head office and regional offices. Using a census approach, primary data were collected through structured online questionnaires and analysed using SPSS with regression analysis. Findings showed Internal controls had the strongest positive influence on corporate governance ($\beta = 0.419$, $p<0.001$), followed by compliance and consulting ($\beta = 0.281$) and risk management ($\beta = 0.235$). Internal audit independence significantly strengthened these relationships. The study identified key challenges affecting audit effectiveness, including limited audit independence, inadequate resources, and political interference.The study recommends strengthening risk management and internal control systems, enhancing the independence of internal audit functions through board-level reporting structures, supporting compliance and consulting roles, and implementing reforms to reduce political interference in governance and audit processes.

## 1. Introduction

Corporate governance has become a central concern for scholars and practitioners due to its critical role in ensuring transparency, accountability, and sustainable organisational performance across both private and public sectors. Good corporate governance frameworks support the efficient allocation of resources, enhance stakeholder confidence, and enable organisations to achieve their strategic objectives (Nkansa, Barr-Pulliam & Walker, 2025). In the public sector, effective governance mechanisms are even more important because they safeguard public resources, promote accountability, and uphold trust in government institutions.

Internal auditing is widely recognised as a key governance mechanism that provides independent assurance, evaluates risk management systems, assesses internal controls, and supports compliance and consultative functions (Nkansa et al., 2025; Osagioduwa & Nwankwo., 2024). By examining the adequacy of controls, identifying systemic weaknesses, and recommending improvements, internal audit contributes to both operational efficiency and accountability (Organisation for Economic Co-operation and Development [OECD], 2024a). Moreover, internal audit has evolved from a traditional compliance function to one that plays a strategic role in enterprise risk management, aligning audit activities with organisational goals and emerging risks (Institute of Internal Auditors [IIA], 2025). Such developments underscore the professional expectation that internal auditors will provide insights that enhance risk identification, operational controls, and value-added assurance.

Despite this theoretical importance, the independence of internal audit units remains a major challenge, particularly in many developing economies. Internal audit independence refers to the freedom of auditors from undue influence from management or other organisational actors, enabling them to make objective judgements and report findings without fear or interference (Muyanga, Mwanza, & Mwange, 2025). Research in the Zambian context highlights that organisational hierarchies, political influences, and cultural expectations can constrain auditors' autonomy, shaping the way internal audit independence is experienced and enacted in practice (Muyanga et al., 2025). These constraints can diminish auditors' willingness or ability to challenge management practices or report significant governance weaknesses, thereby reducing the effectiveness of internal audit functions.



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In public sector organisations, particularly those responsible for critical infrastructure and service delivery, limitations on internal audit independence can profoundly affect governance outcomes. Studies from local government and public agencies in southern and eastern Africa show that weak audit independence, coupled with limited risk management capacity and fragile control environments, undermines accountability systems and perpetuates inefficiencies (Magweba, Chikukwa, & Kadzamira, 2024; Osagioduwa & Nwankwo., 2024). Additional research indicates that internal control systems and strong risk management frameworks are essential complements to internal auditing if governance objectives are to be met (OECD, 2024a; Alfina & Utama, 2025).

In Zambia's public sector, documented evidence highlights persistent financial management challenges, including misuse of public funds, weak control systems, and limited follow-up on audit recommendations, despite the presence of internal audit units in many agencies (Transparency International Zambia, 2025). These governance gaps raise important questions regarding why internal auditing does not consistently lead to improved accountability and whether factors such as auditor independence, risk management practices, internal control quality, and compliance functions influence governance effectiveness.

Although some research has examined internal auditing broadly in Zambia, there remains a lack of recent empirical evidence integrating internal audit independence with key internal audit functions — including risk management, internal controls, and compliance/consulting — and assessing their collective influence on corporate governance effectiveness. This gap is particularly evident in studies focused on parastatals and major public agencies such as RDA, where financial stewardship and governance are critical to national development outcomes. Therefore, this study investigates the influence of internal auditing — including the moderating role of internal audit independence — on the effectiveness of corporate governance in public sector organisations, using the RDA in Zambia as a case study.

### 1.2 Problem Statement

Effective corporate governance is essential for ensuring accountability, transparency, and prudent management of public resources. Internal auditing plays a critical role in supporting corporate governance by providing independent assurance on risk management, internal controls, and compliance with organisational policies and statutory requirements. Despite the establishment of internal audit units across many public sector organisations in Zambia, governance failures and financial irregularities continue to be reported. For example, successive Auditor General's Reports and the Special Audit Report on the Road Development Agency (2017–2022) identified significant weaknesses in internal controls, procurement processes, contract management, and financial accountability, resulting in substantial losses of public resources. These persistent governance challenges raise concerns about the effectiveness of internal auditing in strengthening corporate governance within public institutions.

Although previous studies have examined internal auditing and corporate governance, most have focused on the direct effects of internal audit functions, with limited attention given to the moderating role of internal audit independence in influencing the relationship between risk management, internal controls, compliance and consulting activities, and corporate governance effectiveness. Furthermore, empirical evidence on this relationship remains scarce within Zambia's public sector, particularly at the Road Development Agency. This study therefore examines the influence of internal audit independence on the relationship between internal audit functions and corporate governance effectiveness at the Road Development Agency in Zambia, with the aim of providing evidence-based recommendations for strengthening governance and accountability in public sector organisations.

## 2 Literature Review

### 2.1 Theoretical Framework

Several theories explain the demand for auditing services and corporate governance mechanisms. This study is guided by Agency Theory and Stewardship Theory, which provide insight into the role of internal audit independence in enhancing corporate governance effectiveness in the public sector.

#### Agency Theory

Agency Theory is widely used to justify the existence of auditing and corporate governance systems. According to Michael C. Jensen and William H. Meckling (1976), an agency relationship exists when principals delegate authority to agents to act on their behalf. In organisations, stakeholders are the principals, while managers are the agents responsible for managing organisational resources. The theory suggests that conflicts of interest may arise because managers may pursue personal interests that differ from organisational objectives.

Agency Theory explains the need for auditing because managers usually possess more information about the organisation than stakeholders, creating information asymmetry. This may lead to manipulation of financial information, misuse of resources, or poor accountability. Internal auditing therefore serves as an independent mechanism that monitors management activities, verifies financial information, and strengthens transparency and accountability. Corporate governance instruments such as boards, audit committees, and internal audit units help minimise agency costs and ensure that management acts in the best interests of stakeholders.

#### Stewardship Theory

Unlike Agency Theory, Stewardship Theory assumes that managers are trustworthy stewards who seek to achieve organisational goals rather than personal gain. Davis, Schoorman and Donaldson (1997) argue that managers are motivated by professionalism, responsibility, and commitment to organisational success.

In public sector organisations, Stewardship Theory views managers as guardians of public resources who are expected to promote accountability and efficient service delivery. Internal auditors therefore support management by evaluating internal controls, risk management systems, and governance processes to improve organisational performance.

Both theories are relevant to this study because they explain the importance of internal audit independence in strengthening corporate governance. Agency Theory emphasises monitoring and control of management behaviour, while Stewardship Theory highlights accountability, trust, and support for effective governance.

## 2.2 Empirical Review

This empirical review is structured around global, regional, and local perspectives on internal auditing and corporate governance. The reviewed studies highlight the role of internal audit independence, internal controls, risk management, and compliance activities in strengthening governance effectiveness in both public and private sector organisations.

### Empirical studies on global perspectives

Globally, several studies have demonstrated the importance of internal auditing in promoting effective corporate governance. Abdullah (2014) examined internal audit performance and corporate governance in publicly listed companies in Malaysia using survey research and the Rasch Model for analysis. The study found that internal auditing significantly improved corporate governance, especially in risk management, information technology audits, and quality audits. The researcher recommended greater collaboration and knowledge-sharing among internal auditors.

Schneider (2014) studied commercial banks listed on Oman's Muscat Securities Market and found that effective internal auditing positively influenced corporate governance. The study revealed that auditor independence, competence, and professional due care significantly enhanced governance effectiveness, while quality assurance programs had limited impact. Similarly, Muhammad (2015), in a study conducted in Pakistan, established a positive relationship between internal auditing, corporate governance, and financial performance in the public sector. The study emphasized the importance of internal control systems in ensuring accountability and transparency.

Alzeban (2019) conducted a quantitative study in Saudi Arabia to examine the role of internal auditors in governance and risk management. Findings showed that effective governance could not be achieved without strong internal audit functions capable of identifying and controlling organisational risks. The study recommended strengthening auditor independence, improving governance competence, and enhancing auditor training.

Other international studies have emphasized the strategic and ethical role of internal auditing. Roussy and Brivot (2016), through qualitative case studies in Canada, observed that internal auditors increasingly act as ethical assessors within organisations. Arena et al. (2020) in Italy found that collaboration between internal auditors and Enterprise Risk Management (ERM) systems improved strategic risk identification and strengthened governance structures. Fargher and Zhang (2019) in Australia similarly reported that integrating internal audit systems within ERM frameworks reduced governance failures and improved compliance.

In Jordan, Al-Thuneibat et al. (2019) found that sophisticated internal audit functions positively influenced accountability and transparency in public organisations. Salehi et al. (2020) in Iran further established that active involvement of internal auditors in promoting ethical conduct improved financial reporting quality and internal controls. The researchers recommended integrating ethical audits into routine audit activities.

Professional and institutional studies have also reinforced the importance of internal auditing. The Institute of Internal Auditors (IIA, 2020) emphasized auditor independence and adequate resource allocation in governance, risk, and control frameworks. Likewise, the Committee of Sponsoring Organisations of the Treadway Commission (COSO, 2017) developed an internationally recognised internal control framework consisting of control environment, risk assessment, control activities, information and communication, and monitoring. COSO argued that aligning audit functions with these components enhances governance effectiveness.

Additional studies have highlighted the evolving role of internal auditing. Asare and Wright (2019) found that collaboration between internal auditors and management strengthened governance systems in public sector organisations. In Germany, Lenz and Hahn (2015) and Eulerich and Kalinowski (2018) established that internal auditors contribute significantly to ethics, compliance, and strategic risk management. Lesmana and Fakhfakh (2021) in Indonesia further noted that consulting roles performed by internal auditors improved decision-making and organisational learning in public institutions.

Recent studies continue to reinforce the strategic importance of internal auditing. Munawer et al. (2020) in Pakistan found that auditor competence, management support, and organisational culture significantly affected audit effectiveness. Saeidi, Rahnama, and Banimahd (2025) demonstrated that management and audit committee influence may affect how auditors report internal control weaknesses. Ahmed, Liu, and O'Connor (2025), through a bibliometric analysis, showed growing global recognition of internal auditing as a strategic governance and risk management tool.

Chen et al. (2025) further revealed that although internal audit consulting roles are increasingly recognised, concerns remain regarding independence and role boundaries within ERM frameworks. Thompson (2025) at the University of Stirling highlighted the growing relevance of Machine Learning in improving internal audit risk assessments and governance efficiency.

### Empirical studies from selected African nations

In Africa, studies have similarly highlighted the importance of internal auditing in governance effectiveness. Asaolu et al. (2016) examined internal audit activities in Nigeria's public sector using questionnaires and regression analysis. Although the study found that internal auditing had limited influence on governance effectiveness, it recommended stronger legislative support, funding, and institutional backing for audit functions.

Odoyo et al. (2014) examined the role of internal auditing in risk management at Kenya Railways and linked poor governance to operational and financial challenges experienced by the corporation. The researchers emphasized the importance of strong internal audit systems in improving governance and accountability in state-owned enterprises. Similarly, Mohammed et al. (2017) found that internal auditing positively contributed to corporate governance in Nigeria, particularly through its relationship with boards, audit committees, and external auditors.

In Kenya, Kisanyanya (2018) reported that weak internal audit systems and inadequate risk assessment processes negatively affected organisational governance. The study recommended proper training and empowerment of auditors. Changwony and Rotich (2015) further established that internal auditing significantly improved governance in Kenyan commercial banks and emphasized the role of audit committees in supporting audit functions.

More recently, Suluo, Raphael, and Kapaya (2025) studied audit committees in African regulatory authorities and found that corporate governance significantly strengthened the effectiveness of audit committees. However, the researchers observed weak coordination between internal and external audits.

### Empirical studies in the local context

In Zambia, empirical studies have revealed persistent challenges affecting internal auditing and corporate governance. Sililo (2018) examined the effectiveness of internal auditing in Lusaka Province using qualitative methods. The study found that internal auditors were effective when they operated independently, had clear mandates, adequate funding, professional competence, and stakeholder support. However, the study identified challenges such as reporting conflicts, weak legislation, corruption, and loss of auditor independence.

Sibwela (2017) examined the effectiveness of Auditor General's Reports in improving governance within Zambian public institutions. Although the Office of the Auditor General was found to perform its mandate effectively, the study identified weak legal frameworks and insufficient institutional independence as barriers to effective governance. The study recommended greater emphasis on transparency, accountability, and integrity in public institutions.

Mwanawasa (2016) analysed corporate governance regulations and enforcement mechanisms in Zambia and concluded that self-regulation was weak and ineffective. The study argued that poor enforcement mechanisms contributed to governance failures and continued financial irregularities in both private and public sector organisations.

More recently, Saidi (2024) examined the role of internal control systems in fraud prevention at Falls Beverages Zambia Limited. The study found that effective internal controls significantly contributed to fraud prevention and improved accountability within the organisation. Overall, the reviewed studies demonstrate that internal audit independence, effective internal controls, risk management, and governance support systems are critical for enhancing corporate governance effectiveness in public sector organisations.

## 2.3 Conceptual Framework

This study is anchored on the proposition that internal audit independence enhances the effectiveness of corporate governance by enabling auditors to perform objective and unbiased assurance and advisory functions. Internal audit independence is operationalised through three critical dimensions:

- Risk Management, which enables identification, assessment and mitigation of organisational risks;
- Internal Controls, which strengthen accountability, safeguard public resources and improve operational efficiency; and
- Compliance and Consulting, which ensure adherence to laws, regulations and governance standards while providing management with strategic advisory services.

These dimensions collectively influence the effectiveness of corporate governance, reflected in improved transparency, accountability, ethical conduct, regulatory compliance and organisational performance. The strength of these relationships may vary depending on management support, organisational culture, auditor competence and the prevailing regulatory environment, which are proposed as moderating variables.

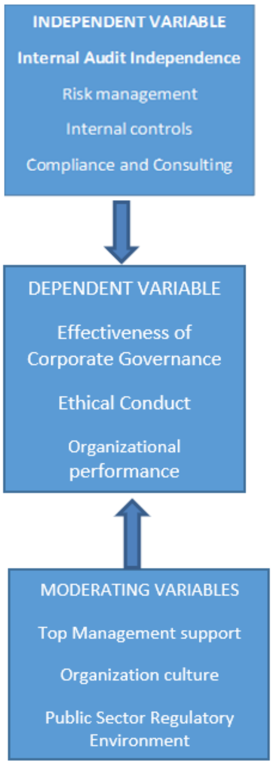


Figure 1: Conceptual framework

The conceptual framework was adapted from Mihret and Yismaw (2017) and Cohen and Sayag (2010) and further modified. It is worth adopting as there has been no literature that has been found on this study undertaken in the Zambian context and it is repeatedly mentioned by different scholars who emphasise its significance in the adoption of the effectiveness of internal audit in strengthening corporate governance.

### Independent variables

This study focused on three independent variables that may have an impact on the effectiveness of corporate governance in the public-sector. Those predicted variables investigated in this study are Risk management, internal controls and compliance and reporting. It should be mentioned that the data for the independent variables were gathered from the internal auditors and other senior management employees of RDA. Therefore, the independent variables indicate management and internal auditors' assessments of these notions. In here the internal audit effectiveness is measured in terms of internal auditors' ability to identify non-compliance activities with the offices procedures and policies, and the contributions added by Internal Audit to the public offices. Compliance audit is a type of audit service that is mostly performed by internal auditors of the organisation (Fadzil, et al., 2005). Compliance is defined as 'adhering to the requirements of laws, industry and organisational standards and codes, principles of good governance and accepted community and ethical standards". Compliance also involves ascertaining the extent of compliance with established policies, plans, procedures, laws and regulations, which could have a significant impact on the organisations operations.

Therefore, internal audit is responsible to regularly assess and verify internal operations conformance with organisations policies and procedures, and then issue compliance report to the concerned body. Based on the aforesaid institutional and agency theoretical analysis and the conclusions of prior research, it is suggested that in today's complex and changing environment, risk management, internal controls, and compliance and consulting may have significant effect on corporate governance effectiveness.

### Dependent variable

In the same way, with the dependable variable items, all of the independent variables' items were measured on a five-point Likert-scale where the lowest scale represents strongly disagree and the highest scale represents strongly agree (Likert, 1932). The dependent variable for this research is effectiveness of corporate governance.

# 3 Methodology

## 3.1 Research Philosophy

This study adopted the positivist research philosophy, which assumes that relationships among variables can be objectively measured using quantitative methods. Positivism is appropriate because the study sought to examine the influence of internal audit independence on corporate governance effectiveness through empirical testing of predefined hypotheses.

## 3.2 Research Approach

The study employed a deductive research approach. Existing theories on corporate governance and internal auditing informed the development of hypotheses, which were tested using quantitative data collected from respondents within the Ministry of Local Government and Rural Development.

## 3.3 Research Design

A descriptive cross-sectional survey design was adopted. The design was appropriate because it enabled the collection of data from respondents at a single point in time while examining relationships between internal audit independence and corporate governance effectiveness.

The design is widely used in governance and public administration studies because it is economical, permits analysis of multiple variables simultaneously, and allows statistical generalisation to the target population.

## 3.4 Study Population

The target population comprised employees involved in governance, finance, auditing and management functions within the Ministry of Local Government and Rural Development.

These included:

- Internal auditors
- Finance officers
- Directors
- Senior managers
- Accountants
- Procurement officers
- Monitoring and evaluation officers

These employees possess adequate knowledge of internal audit operations and governance systems.

## 3.5 Sample Size and Sampling Technique

The study employed stratified random sampling to ensure representation from all professional groups.

The sample size was determined using Yamane's (1967) formula:

The sample size was determined using Yamane's (1967) formula:

n=N1+N(e)2n=

where:

- n = sample size
- N = target population
- e = 5% margin of error

Where the accessible population is relatively small (below 200), all eligible employees may be included through a census approach.

## 3.6 Data Collection Instrument

Primary data were collected using a structured self-administered questionnaire.

The questionnaire consisted of five sections:

Section A: Demographic information

Section B: Internal Audit Independence

Section C: Risk Management

Section D: Internal Controls and Compliance

Section E: Corporate Governance Effectiveness

Responses were measured using a five-point Likert Scale ranging from:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

## 3.7 Validity

Content validity was established through expert review by specialists in auditing, public administration and corporate governance.

The questionnaire was revised following recommendations from academic supervisors and practitioners.

Construct validity was assessed through Exploratory Factor Analysis (EFA) prior to hypothesis testing.

The following thresholds were adopted:

- KMO > 0.70
- Bartlett's Test $p < 0.05$
- Factor loadings > 0.50

## 3.8 Reliability

Reliability of the instrument was assessed using Cronbach's Alpha.

The acceptable threshold was:

$\alpha \geq 0.70$

Variables with reliability coefficients below the threshold were revised before final analysis.

## 3.9 Pilot Study

A pilot study involving approximately 10% of the sample was undertaken among employees from another government institution with similar characteristics.

The pilot study assessed:

- clarity of questions
- completion time
- reliability
- validity

Pilot respondents were excluded from the main study.

## 3.10 Data Collection Procedure

Approval to conduct the study was obtained from the university and the Ministry of Local Government and Rural Development.

Questionnaires were distributed personally and electronically to selected respondents.

Completed questionnaires were checked for completeness before coding.

## 3.11 Data Analysis

Data were analysed using IBM SPSS Version 29.

The analysis consisted of:

Descriptive Statistics

- Frequencies
- Percentages
- Means
- Standard deviations

Inferential Statistics

Pearson Correlation was used to determine relationships among variables.

Multiple Linear Regression was employed to determine the influence of:

- Risk Management
- Internal Controls
- Compliance and Consulting

on Corporate Governance Effectiveness.

The regression model was specified as:

$CGE=\beta_0+\beta_1(RM)+\beta_2(IC)+\beta_3(CC)+\varepsilon$CGE=\beta_0+\beta_1(RM)+\beta_2(IC)+\beta_3(CC)+\varepsilonCGE=β0+β1(RM)+β2(IC)+β3(CC)+ε

Where:

CGE = Corporate Governance Effectiveness

RM = Risk Management

IC = Internal Controls

CC = Compliance and Consulting

ε = Error term

The level of significance was set at:

$p < 0.05$.

### 3.12 Reliability of the Research Instrument

Ethical approval was obtained from the relevant university ethics committee.

Permission to conduct the research was granted by the Ministry of Local Government and Rural Development.

Respondents participated voluntarily after providing informed consent.

Confidentiality and anonymity were maintained throughout the study.

Data were used exclusively for academic purposes.

## 4 Results and Discussion

Correlation analysis was conducted to determine the strength and direction of the relationships between the independent variables and effectiveness of corporate governance (ECG). Results are presented in Table 4.8. The results indicate that internal controls (IC) exhibit the strongest positive correlation (0.561) with corporate governance effectiveness, highlighting their central role in enhancing governance practices within RDA. Risk management (0.432) and compliance and consulting (CC) (0.489) show moderate positive correlations, suggesting their contribution is meaningful but comparatively weaker. Low correlations between risk management and both internal controls (0.281) and compliance/consulting (0.235) indicate opportunities for stronger integration among these governance components.

Table 1: Correlation coefficient

| Variables | ECG | RM | IC | CC |
|---|---|---|---|---|
| ECG | 1.000 | | | |
| RM | 0.432 | 1.000 | | |
| IC | 0.561 | 0.281 | 1.000 | |
| CC | 0.489 | 0.235 | 0.419 | 1.000 |

The following is how the multiple regression analysis's coefficient of determination—which measures the impact of the independent variables on the dependent variable—presents and interprets the model's significance and the analysis of the regression coefficients.

Table 2: Model summary

| Model | R | R-Square | Adjusted R-Square | F-Statistic |
|---|---|---|---|---|
| 1[c] | 0.643[a] | 0.414[a] | 0.387[a] | 23.115[b] |

a. Predictors: Risk Management, Internal Controls, Compliance & Consulting
b. Dependent Variable: Effectiveness of Corporate Governance
c. Constant

The R-Square of 0.414 suggests that 41.4% of the variation in corporate governance effectiveness is explained by risk management, internal controls, and compliance/consulting.

The adjusted R-Square of 0.387 accounts for potential overfitting. The F-statistic (23.115, $p < 0.001$) indicates the model is statistically significant, confirming that the included variables collectively influence governance outcomes.

Table 3: ANOVA Test

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Regression | 20.509 | 3 | 6.836 | 23.115 | 0.000[b] |
| Residual | 14.491 | 66 | 0.219 | | |
| Total | 35.000 | 69 | | | |

a. Dependent Variable: Effectiveness of Corporate Governance
b. Predictors: (Constant), Risk Management, Internal Controls, Compliance & Consulting

The ANOVA results confirm that the regression model is a good fit for the data. The significant F-statistic ($p < 0.001$) indicates that the relationships between the independent variables and corporate governance effectiveness are unlikely to have occurred by chance.

The coefficients analysis (Table 4) reveals the influence of each independent variable on corporate governance effectiveness.

Table 4: Regression coefficient

| Model | Unstandardised Coefficients B | Std. Error | Standardised Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|
| Constant[c] | 2.351 | 0.432 | – | 5.443 | 0.000 |
| RM | 0.235b | 0.067 | 0.243 | 3.507 | 0.001 |
| IC | 0.419b | 0.073 | 0.432 | 5.743 | 0.000 |
| CC | 0.281b | 0.069 | 0.292 | 4.067 | 0.000 |

a. Dependent Variable: Effectiveness of Corporate Governance
b. Predictors: Risk Management, Internal Controls, Compliance & Consulting
c. Constant

The resulting regression equation is:

$$Y = 2.351 + 0.235X_1 + 0.419X_2 + 0.281X_3$$

Where:

$Y$ = Effectiveness of Corporate Governance

$X_1$ = Risk Management

$X_2$ = Internal Controls

$X_3$ = Compliance and Consulting

This indicates that corporate governance effectiveness increases by 0.235 units for each unit increase in risk management, 0.419 units for internal controls, and 0.281 units for compliance and consulting, holding other variables constant.

In addition to the main effects, the study examined the moderating effect of internal audit independence ($H0_4$) on the relationships between the independent variables and corporate governance effectiveness. Preliminary analysis shows that respondents perceive internal audit independence as enhancing the impact of risk management, internal controls, and compliance/consulting on governance effectiveness. Stronger independence allows auditors to objectively assess controls, monitor risks, and provide unbiased compliance and consulting guidance, thereby strengthening corporate governance outcomes.

The results confirm that internal controls have the strongest influence on corporate governance effectiveness, followed by compliance and consulting, and risk management. Moreover, internal audit independence plays a moderating role, enhancing the effect of all three internal audit functions on governance outcomes.

Table 5: Summary of hypothesis testing

| Hypothesis | β | p-value | Decision |
|---|---|---|---|
| $H_{01}$: Risk management has no significant effect on corporate governance effectiveness | 0.235 | 0.001 | Rejected |
| $H_{02}$: Internal controls have no significant effect on corporate governance effectiveness | 0.419 | 0.000 | Rejected |
| $H_{03}$: Compliance and consulting have no significant effect on corporate governance effectiveness | 0.281 | 0.000 | Rejected |
| $H_{04}$: Internal audit independence significantly moderates the relationship between risk management, internal controls, compliance & consulting, and corporate governance effectiveness | – | – | Supported by descriptive & inferential findings |

## 5 Conclusion and Recommendations

### 5.1 Conclusion

The primary aim of this study was to assess the influence of internal auditing independence on the effectiveness of corporate governance at RDA. Based on the findings, it is evident that internal auditing plays a pivotal role in enhancing corporate governance by strengthening risk management, improving internal controls, and promoting compliance and consulting activities.

Firstly, internal auditing has significantly contributed to risk management at RDA. Auditors identified, assessed, and monitored various organisational risks and ensured that appropriate mitigation strategies were implemented. These efforts helped the agency to proactively manage its exposure to financial, operational, and compliance-related risks, which is essential for sustainable governance. The findings resonate with existing literature which emphasises the indispensable role of internal audit in enterprise risk management and strategic decision-making.

Secondly, the efficiency and effectiveness of internal controls have improved as a result of regular internal audits. The internal audit function enhanced control frameworks, improved the accuracy of financial reporting, and ensured the proper functioning of operational systems. This has reinforced accountability and transparency in the management of public resources within the agency.

Thirdly, internal auditing has had a substantial impact on compliance and consulting practices. By advising on the achievement of strategic goals, reviewing adherence to ethical standards, and ensuring conformity with financial and administrative procedures, internal auditing has promoted a culture of good governance. It has also played a consulting role by offering constructive recommendations that align organizational operations with legal, procedural, and policy requirements.

Collectively, the study concludes that the internal audit function at RDA is not only an assurance mechanism but also a critical driver of effective corporate governance. This confirms prior research that underscores the importance of internal audit independence, professional competence, and managerial support in fostering transparency, accountability, and operational excellence in public sector entities.

## 5.2 Recommendations

Based on the findings and conclusions drawn from the study, the following recommendations for policy-makers are proposed to further enhance the role of internal auditing in corporate governance at RDA:

**Strengthen the Independence of the Internal Audit Function**

The RDA should ensure that the internal audit unit operates with a high degree of independence and objectivity. This includes allowing direct reporting lines to the Board of Directors or an Audit Committee rather than solely to executive management. Independent auditing helps in providing unbiased and credible assurance to stakeholders.

**Enhance Capacity Building and Training**

Continuous professional development should be prioritized to ensure that internal auditors remain abreast of emerging risks, auditing standards, and governance practices. This will enable them to perform more sophisticated audits, especially in areas such as IT governance, cybersecurity, and environmental compliance.

**Institutionalise Enterprise Risk Management (ERM)**

The internal audit function should be more closely integrated with the organization's enterprise risk management framework. This would allow for a holistic approach to risk identification, mitigation, and monitoring, improving resilience and strategic alignment.

**Leverage Technology and Data Analytics**

The Road Development Agency should adopt audit software and data analytics tools to enhance the efficiency and accuracy of internal audits. Technology-enabled auditing supports the identification of irregular patterns, improves real-time risk assessment, and enhances the quality of audit reporting.

**Promote a Strong Ethical and Compliance Culture**

Internal auditors should continue to play a leading role in promoting an ethical culture by reviewing and reinforcing codes of conduct, ethics training, whistleblower protection mechanisms, and compliance with legal frameworks. This fosters a values-based organisational culture.

**Expand the Consulting Role of Internal Auditing**

While maintaining its assurance responsibilities, internal auditing at RDA should increase its consultative engagements. This involves providing strategic advice on governance matters, organizational restructuring, and policy formulation to enhance efficiency and service delivery.

**Periodic Performance Evaluations of the Audit Function**

The RDA should regularly evaluate the performance of its internal audit unit to ensure that it meets its objectives and aligns with best practices. Feedback mechanisms and stakeholder satisfaction surveys can help in identifying areas for improvement.

### Declaration of Competing Interests

The Authors declare no competing interests.

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### Authors' Contribution Statement

Formulated and designed the study; established the research framework and technique; directed the composition of the initial manuscript draft.

### Ethical considerations

The article followed all ethical standards appropriate for this kind of research.

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