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*Effect of Internal Control Environment and Internal  
Audit Function on Financial Performance of Insurance  
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## Effect of Internal Control Environment and Internal Audit Function on Financial Performance of Insurance Companies in Kenya

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### Abstract

*This study investigated the impact of the internal control environment and internal audit function on the financial performance of insurance companies in Kenya. A total of 58 insurance companies were selected, and the study adopted both correlational and descriptive research designs. Data analysis was conducted using multiple regression to examine the relationship between the variables. The findings revealed that a strong internal control environment, alongside an effective internal audit function, significantly contributes to improved financial performance in the insurance sector. The study concludes that robust internal control environment and internal audit function are essential for enhancing accountability, risk management, and operational efficiency. The study recommends that insurance companies establish dedicated government audit units. These units should work in close collaboration with internal audit departments to ensure seamless integration of government policies into internal control frameworks. This approach would strengthen regulatory compliance and support sustainable financial performance in the industry.*

**Keywords:** Internal Control Environments, Internal Audit Function, Financial Performance, Companies, Internal Control Systems

### 1. Introduction

The internal control environment and internal audit function are pivotal components in ensuring the accuracy of financial reporting, safeguarding assets, enhancing operational efficiency, and maintaining compliance with relevant regulations. These controls are primarily designed to minimize risks such as errors, fraud, mismanagement, and inefficiencies within the organization. For all organizations, internal controls are essential in managing financial risks, ensuring the integrity of financial statements, and protecting the organization's assets (Bett & Membe, 2017).

Recent empirical studies have underscored the significance of these internal mechanisms in the financial performance of insurance companies in Kenya. For instance, Lagat (2024) found that internal controls, encompassing quality and resource control, significantly impact the financial performance of credit companies. The study revealed that internal control accounts for 24.6% of the performance of insurance companies in Kenya, indicating a substantial influence on financial

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outcomes. Similarly, Ibrahim et al. (2019) demonstrated that audit committee independence positively affects the financial performance of firms, highlighting the role of governance structures in financial outcomes.

Furthermore, the internal audit function plays a crucial role in fraud detection and risk management. Mathenge (2016) established that proactive fraud audits, compliance to policies, risk management, and control of operations significantly contribute to fraud detection among banks and financial institutions in Kenya. This emphasizes the importance of a robust internal audit function in safeguarding financial integrity. Additionally, Were et al. (2023) found that risk-based internal audit practices, including cybercrime security controls and data analytics, have a statistically significant positive effect on the financial performance of agricultural companies listed at the Nairobi Securities Exchange. These findings underscore the necessity for these companies to invest in comprehensive internal audit functions to enhance financial performance and mitigate risks.

In conclusion, the internal control environment and internal audit function are integral to the financial performance of insurance companies in Kenya. Empirical evidence from recent studies highlights their roles in enhancing financial outcomes, detecting and preventing fraud, and ensuring compliance with regulations. Insurance companies should, therefore, prioritize strengthening these internal mechanisms to achieve improved financial performance and sustainability.

## **1.2 Research Problem**

The insurance sector in Kenya has faced numerous challenges that have hindered its growth and stability, including poor internal control systems, weak risk management practices, financial mismanagement, and regulatory compliance issues. Several insurance companies, such as Blue Shield Insurance, Invesco Assurance, and Amaco Insurance, have collapsed due to mismanagement, underpricing of premiums, and failure to meet regulatory requirements, highlighting the critical role of robust internal control systems. Despite the relatively large number of licensed insurance companies, the sector continues to struggle with underdeveloped risk management frameworks, inadequate internal controls, fraud, poor claims management, and low

insurance penetration. These challenges have led to financial instability and a lack of consumer trust in the sector. The challenges faced by these companies underscore the critical need for effective internal control environment and internal audit function. Bett and Membe (2017) and Muthoni and Kariuki (2019) argue that robust internal control environment structures and internal audits are fundamental to ensuring transparency and accountability in financial management. Given these issues, there was a need to investigate the effect of internal control environment and internal audit function on the financial performance of insurance companies in Kenya. The research was particularly important as it addressed gaps in the current body of knowledge, specifically regarding how these internal control systems impact the financial performance and sustainability of insurance companies in Kenya. This research further provided valuable insights for regulators, policymakers, and industry leaders to enhance governance, risk management, and regulatory compliance within the sector.

### **1.3 Objectives of the Study**

The main objective of the study was effect of internal control environment and internal audit function on the financial performance of insurance companies in Kenya. The specific objectives are to:

- a) To determine effect of internal control environment on financial performance of insurance companies in Kenya.
- b) To determine effect of internal audit function on financial performance of Insurance companies in Kenya.

### **1.4 Research Hypotheses**

The following research hypotheses were tested in the study:

H<sub>01</sub>: Internal control environment doesn't significantly affect financial performance of insurance companies in Kenya.

H<sub>02</sub>: Internal audit function doesn't significantly affect financial performance of insurance companies in Kenya.

## **2. Literature Review**

### **2.1 Theoretical Framework**

Theories were developed for the study on effect of internal control environment and internal audit function on the financial performance of insurance companies in Kenya. The study was anchored on the following theories:

#### **2.1.1 Agency Theory**

Agency theory provides a conceptual framework for understanding the principal-agent relationship, which arises when a principal, such as a shareholder, entrusts an agent, such as a manager, to act on their behalf. This relationship often introduces agency problems, driven by conflicting interests, goal misalignment, or asymmetrical access to information. Managers, in their role as agents, may prioritize personal gain over the organization's objectives, necessitating governance mechanisms to align interests and reduce inefficiencies. Scholars like Jensen and Meckling (1976) pioneered the theory, which has since been expanded by contemporary researchers such as Rossouw et al. (2018) and van der Voet & Steijn (2020) to explore modern applications in governance and organizational performance.

##### **2.1.1.1 Relationship between Agency Theory and the Current Study as Regards Internal Control Environment**

Agency theory provided valuable insight into the need for internal control environment to mitigate the risks of agents acting in their own self-interest rather than in the interests of the principals. Across all the reviewed studies, the importance of internal control environment in reducing agency costs and improving organizational performance is evident. In the case of insurance companies, these internal controls help manage the conflict between agents (e.g., underwriters and claims managers) and principals (e.g., shareholders or policyholders), ensuring that agents' actions align with the broader organizational goals.

The strengths of agency theory included its ability to clearly explain principal-agent conflicts and its applicability across different sectors. It offered practical insights into how internal control environment could minimize agency costs by aligning agents' behavior with the interests of the principals. However, the theory had its weaknesses, including an overemphasis on financial

incentives, which overlooked non-financial motivations like organizational culture or ethical behavior. Additionally, agency theory assumed that agents are always self-interested, which is not always the case. Furthermore, it often neglects the transaction costs associated with managing principal-agent relationships, such as monitoring and enforcement costs, which are particularly significant in complex industries like insurance.

#### **2.1.1.2 Relationship between Agency Theory and the Current Study as Regards Internal Audit Function**

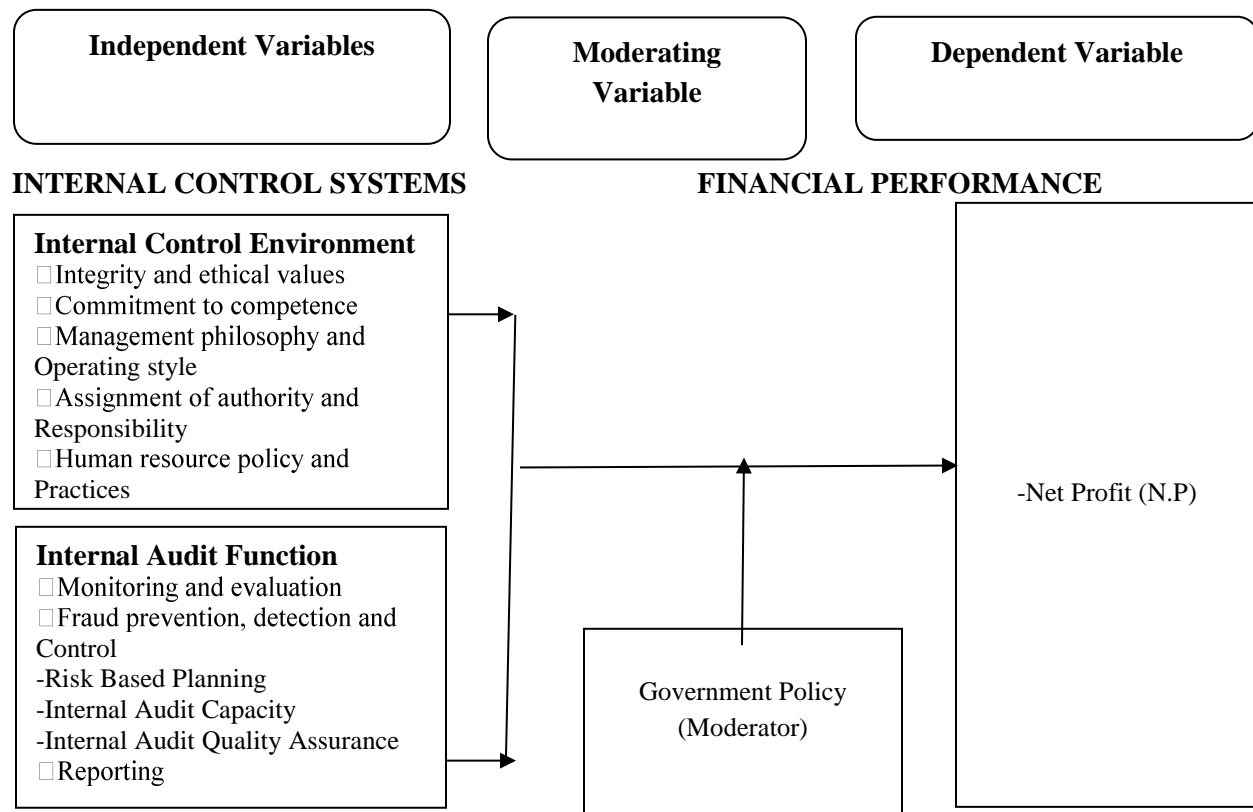
Agency theory serves as a foundational framework for understanding the role of internal audit functions in mitigating principal-agent conflicts within insurance companies. As posited by Jensen and Meckling (1976), agency theory explains how conflicts arise when managers (agents) pursue objectives that may diverge from those of shareholders or policyholders (principals). In the context of insurance firms, where operations involve complex financial instruments, long-term liabilities, and high-stakes decision-making, agency risks are particularly acute. Managers, underwriters, and claims officers wield substantial discretion over underwriting standards, investment choices, and claims settlement practices—areas where opportunism or misaligned incentives can lead to excessive risk-taking, inefficiencies, or even financial misconduct. According to Al-Matari et al. (2017), internal audit acts as an internal governance tool that bridges this gap by enforcing controls and accountability mechanisms that align managerial actions with organizational objectives.

Recent empirical studies reinforce the relevance of agency theory in examining the internal audit function's impact on financial performance. Kabuye et al. (2017) found that robust internal audit structures are instrumental in curbing agency costs by increasing transparency, enforcing compliance, and promoting financial discipline within institutions. Similarly, Wanjala and Wanyoike (2019) observed that in Kenyan financial institutions, including insurers, a strong internal audit presence was positively correlated with improved financial reporting and asset protection, effectively supporting the principal's interests. From 2020 to 2024, more targeted studies, such as by Nyamita and Otieno (2022), have expanded on these findings by demonstrating that internal audit units that operate independently and are well-resourced not only improve financial performance but also contribute to strategic risk management, particularly in sectors with high regulatory oversight like insurance. These functions provide assurance that management

actions are being monitored, assessed, and guided, reducing the probability of decisions that could undermine firm value.

Moreover, the internal audit function's integration with enterprise risk management (ERM) further enhances its agency-reducing capacity. According to Gitau and Limo (2021), the audit function, when aligned with ERM frameworks, enables insurance firms to systematically identify and mitigate strategic and operational risks that agents may ignore or underplay. As documented by Mutua and Mwithi (2023), this integration provides a structured channel for monitoring managerial decisions and aligning them with the risk appetite and long-term goals of the firm, thereby safeguarding the interests of shareholders and policyholders. Thus, in the current study, the conceptual relationship between agency theory and internal audit function is pivotal in explaining how well-designed audit mechanisms not only mitigate risk and improve compliance but also enhance financial performance by reducing agency-related inefficiencies.

## 2.2 Conceptual Framework



### **Figure 1.1: Conceptual Framework**

This study investigated the effect of internal control environment and internal audit function on the financial performance of insurance companies in Kenya, with the internal control environment and internal audit function serving as the independent variables, financial performance as the dependent variable, and government policy acting as the moderating variable.

The first, internal control environment, consisted of elements that shaped the organizational culture and operational values within an organization. These elements included integrity and ethical values, which fostered trust and minimized the potential for fraud and operational risks; commitment to competence, which ensured the proper management of financial operations by qualified personnel; human resource policies and practices that guided hiring, training, and employee evaluations; management philosophy and operating style, which influenced decision-making and risk appetite; and assignment of authority and responsibility, which promoted accountability and reduced inefficiencies.

The second component, internal audit function, involved processes designed to monitor and evaluate compliance with the established controls. It included monitoring and evaluation to track performance and detect deviations, fraud prevention, detection, and control measures to protect against financial irregularities, and reporting that enhanced transparency. Additionally, risk-based planning allocated resources to high-priority risks, while internal audit capacity and quality assurance ensured that auditors were well-equipped and adhered to professional standards.

The dependent variable in the study was financial performance, measured using net profit. Net profit was preferred over other financial performance indicators such as return on assets (ROA) and return on equity (ROE) for several reasons. First, net profit provided a holistic view of the company's financial performance, accounting for all aspects of its operations, including revenues, expenses, and taxes. This comprehensive measure offered a more complete picture of a company's profitability. Second, net profit was easily understood by stakeholders and offered a direct link to operational success. Unlike ROA or ROE, which were influenced by factors like asset values or equity structures that may differ significantly across firms, net profit remained a consistent and universally applicable metric of profitability and sustainability.



Government policy served as the moderating variable, impacting the relationship between internal control systems and financial performance. Government policy could either enhance internal controls by providing structured guidelines or overburden companies with excessive regulation, potentially reducing profitability. For example, regulations that required frequent audits improved transparency but could also increase operational costs, thereby impacting net profit. In this way, government policy either amplified or constrained the effectiveness of internal control systems in improving financial performance.

The study hypothesized that robust internal control systems comprising an effective internal control environment and a strong internal audit function would positively influence financial performance, specifically net profit. A sound internal control environment promoted operational efficiency and reduced fraud, while internal audits ensured compliance and transparency. These factors were expected to contribute to increased profitability. Furthermore, government policy was expected to moderate this relationship by either strengthening or weakening the effects of internal controls on financial performance. Effective regulations would enhance the positive impact of internal controls, while excessive regulations might limit profitability.

In conclusion, the conceptual framework posited that internal control environment and internal audit function had a direct influence on financial performance by reducing operational risks, ensuring compliance, and enhancing efficiency. The role of government policy as a moderating variable suggested that effective regulation could bolster the positive effects of internal controls, while excessive regulation might limit profitability.

### **3. Methodology**

#### **3.1 Research Design**

Correlational and descriptive research designs were employed to examine relationships between variables or describe characteristics of a phenomenon in the study.

### **3.2 Population, Sample Size and Sampling Technique**

The target population was drawn from the 58 insurance companies in Kenya. This population comprised 58 finance officers and 58 internal auditors, representing one finance officer and one internal auditor from each insurance company.

The target population was drawn from the 58 insurance companies in Kenya. This population comprised 58 finance officers and 58 internal auditors, representing one finance officer and one internal auditor from each insurance company. The inclusion of two respondents per organization—one finance officer and one internal auditor—was justified by the complementary nature of their roles in relation to the study variables. Finance officers are responsible for financial performance and reporting, while internal auditors oversee the effectiveness of internal control systems. Collecting data from both ensured a comprehensive and balanced perspective on the relationship between internal controls and financial performance.

The study employed a simple random sampling technique, which involved selecting participants in such a way that each individual had an equal chance of being chosen from the defined target population. Using simple random sampling, 45 finance officers and 45 internal auditors were initially selected, resulting in a target sample size of 90 respondents. However, only 89 respondents participated, resulting in a response rate of 98.9%. The decision to randomly select participants from the eligible pool followed the principles of simple random sampling, ensuring that the findings were reflective of the entire population.

The decision to select two respondents per organization—specifically one finance officer and one internal auditor—was based on the need to capture diverse yet interrelated perspectives on the study variables. Finance officers possess in-depth knowledge of financial performance metrics, while internal auditors are directly involved in assessing the effectiveness of internal control systems. By including both, the study ensured a dual-source approach to data collection that enhances validity, minimizes respondent bias, and allows for cross-verification of information related to internal controls and financial outcomes. This approach also reflects the collaborative roles these functions play in corporate governance and risk management within insurance companies. According to Waweru (2019), incorporating multiple functional perspectives in

organizational research strengthens data reliability and provides a more holistic understanding of internal control and financial performance relationships.

### 3.3 Sources of Data

Primary data, gathered through the use of a questionnaire was used for the study in order to arrive at dependent and objective analyses.

### 3.4 Model Specifications

#### 3.4.1 Main Model

The basic relationship between internal control systems and financial performance was expressed as follows:

$$FP_i = \beta_0 + \beta_1 ICE_i + \beta_2 IAF_i + \beta_3 RMC_i + \varepsilon_i$$

Where:

- **FP** = Financial Performance
- **ICE** = Internal Control Environment
- **IAF** = Internal Audit Function
- **RMC** = Risk Management Control
- $\beta_0$  = Intercept
- $\beta_1, \beta_2, \beta_3$  = Coefficients of the independent variables
- $\varepsilon_i$  = Error term

#### 3.4.2 Moderated Model

To incorporate the moderating effect of government policy, interaction terms between government policy and each independent variable were introduced. The moderated model was expressed as follows:

$$FP_i = \beta_0 + \beta_1 ICE_i + \beta_2 IAF_i + \beta_3 RMC_i + \beta_4 GP + \varepsilon_i$$

$$FP_i = \beta_0 + \beta_1 ICE_i + \beta_2 IAF_i + \beta_3 RMC_i + \beta_4 GP + \beta_5 ICE_i(GP) + \beta_6 IAF_i(GP) + \beta_7 RMC_i(GP) + \varepsilon_i$$

Where:

- **GP** = Government Policy
- $\beta_4$  = Coefficient of government policy

- $\beta_5, \beta_6, \beta_7$  = Coefficients of the interaction terms
- $ICE_i(GP_i), IAF_i(GP_i), RMC_i(GP_i)$  = Interaction terms between government policy and each independent variable
- $i$  = Insurance Companies

#### 4. Result Presentation, Analysis and Interpretation

A total of ninety (90) questionnaires were administered and distributed to respondents in order to obtain relevant data for the study. Eighty-nine (89) questionnaires were successfully retrieved from sampled respondents in the context of assessing the impact of internal control environment and internal audit function on financial performance of insurance companies in Kenya showing a response rate of 98.9%.

**Table 4.1: Correlation between Internal Control Environment and Financial Performance**

		Financial Performance	Internal Environment	Control
Financial Performance	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	89		
Internal Environment	Pearson Correlation	.553**	1	
	Sig. (2-tailed)	.000		
	N	89	89	
Control	Sig. (2-tailed)	.000	.000	1
	N	89	89	89

\*\* . Correlation is significant at 0.01 level (2-tailed).

The findings presented in Table 4.1 show a positive and statistically significant correlation between internal control environment and financial performance in Kenyan insurance companies. Specifically, the correlation between financial performance and internal control environment is  $r = 0.553$ ,  $p < 0.01$ . This result indicates that improvements in internal control environment is positively associated with better financial performance. More precisely, for every unit increase in this dimension of internal control environment, financial performance improves by 0.553.

**Table 4. 2: Effect of Internal Control Environment on Financial Performance of Insurance Companies in Kenya (Model Coefficient Results)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-2.468	.939		-2.628	.010
Integrity and ethical values	.623	.217	.271	2.871	.005
Commitment to competence	.061	.029	.187	2.085	.040
1 Organizational structure	-.104	.121	-.105	-.856	.394
Management philosophy and operating style	.132	.088	.131	1.499	.138
Assignment of authority and responsibility	.584	.198	.375	2.956	.004
Human resource policy and practices	.310	.146	.204	2.129	.036

a. Dependent Variable: Financial Performance

The analysis reveals a significant insight into the financial performance of insurance companies in Kenya. It shows that, in the absence of any factors in the model, there is a constant decline in financial performance by 2.468 units, with a baseline value of 0.939 for financial performance when all dimensions of the internal control environment are held constant. This highlights the importance of internal control mechanisms in influencing financial outcomes.

**Table 4.3: Model Summary on Effect of Internal Control Environment on Financial Performance of Insurance Companies in Kenya.**

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	Change in R Square	Change in F	df1	df2	Sig. Change	F
1	.679 <sup>a</sup>	.461	.421	.37840	.461	11.680	6	82	.000	

a. Predictors: (Constant), Human resource policy and practices, Organizational structure, Commitment to competence, Management philosophy and operating style, Integrity and ethical values, Assignment of authority and responsibility

The model results reveal a strong correlation coefficient of 0.679 between the internal control environment and the financial performance of insurance companies in Kenya. This indicates a significant positive relationship between the internal control environment and financial performance, suggesting that the quality of internal controls is an important determinant of financial outcomes in the sector.

Additionally, the combination of the dimensions of the internal control environment accounts for 46.1% of the variance in the financial performance of insurance companies in Kenya ( $R^2 = 0.461$ ,  $p < 0.05$ ). This finding suggests that nearly half of the variation in financial performance can be explained by the internal control environment, highlighting its substantial impact. The adjusted  $R^2$  value of 0.421 indicates a slight shrinkage of 0.04 units, reflecting a minor over-estimation of the model's explanatory power, which is common in regression analyses with multiple predictors.

The standard error value, which is small and below one, further supports the accuracy of the model, indicating that the predictions made by the regression are reliable. Moreover, the change statistics reveal that the model is statistically significant ( $F(6, 82) = 11.680$ ,  $p < 0.05$ ), confirming that the internal control environment is a meaningful predictor of financial performance and that the results are not due to chance. This model, therefore, provides strong evidence that the internal control environment plays a crucial role in shaping the financial outcomes of insurance companies in Kenya.

**Table 4.4: Correlation between Internal Audit Function and Financial Performance**

		Financial Performance	Internal Function	Audit
Financial Performance	Pearson Correlation	1	.599**	
	Sig. (2-tailed)		.000	
	N	89	89	
Internal Audit Function	Pearson Correlation	.599**	1	
	Sig. (2-tailed)	.000		
	N	89	89	
	Sig. (2-tailed)	.000	.000	
	N	89	89	

\*\*. Correlation is significant at 0.01 level (2-tailed).

The findings presented in Table 4.4 show a positive and statistically significant correlation between internal audit function and financial performance in Kenyan insurance companies. Specifically, the correlation between financial performance and internal audit function is  $r = 0.599$ ,  $p < 0.01$ . This result indicates that improvements in internal audit function is positively associated with better financial performance. More precisely, for every unit increase in this dimension of internal control environment, financial performance improves by 0.599.

**Table 4.5: Effect of Internal Audit Function on Financial Performance of Insurance Companies in Kenya (Model Coefficient Results)**

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	-4.314	1.014			-4.257	.000
	Monitoring and evaluation	1.012	.226	.414		4.474	.000
	Fraud prevention, detection and control	.273	.119	.187		2.294	.024
	Risk Based Planning	.203	.085	.190		2.370	.020
	Internal Audit Capacity	.554	.184	.267		3.019	.003
	Reporting	-.018	.119	-.013		-.155	.877

a. Dependent Variable: FP Financial Performance

The findings indicate that in the absence of any independent variables, there is a constant decline in the financial performance of insurance companies by 4.314 units. The baseline value of the dependent variable, financial performance, is 1.014 when all independent variables related to the internal audit function are held constant.

**Table 4.6: Model Summary on Effect of Internal Audit Function on Financial Performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change in R Square	Change in F	df1	df2	Sig. Change	F
1	.693 <sup>a</sup>	.480	.449	.36922	.480	15.347	5	83	.000	

a. Predictors: (Constant), Reporting, Risk Based Planning, Fraud prevention, detection and control, Internal Audit Capacity, Monitoring and evaluation

The findings indicate a moderate multiple correlation between the internal audit function and the financial performance of insurance companies in Kenya ( $R = 0.693$ ). This implies a strong relationship between the two variables. By squaring the correlation coefficient, the coefficient of determination ( $R^2$ ) is calculated to be 48.0%, meaning that internal audit function explains 48.0% of the variance in the financial performance of insurance companies in Kenya. The remaining 52.0% of the variance is attributed to other factors outside the scope of this study.

When controlling for overestimation, the adjusted  $R^2$  value shows that internal audit function accounts for 44.9% of the variance in financial performance, which reflects a slight shrinkage of 0.031%. These findings are both positive and statistically significant, as evidenced by the F-value of  $F(5, 83) = 15.347$ ,  $p < 0.05$ . This suggests that the regression model is well-fitted and that the internal audit function has a significant influence on financial performance in the context of insurance companies in Kenya.

## **5. Conclusion**

Based on the research findings related to the first objective, it can be concluded that the combined effect of the internal control environment elements namely integrity and ethical values, commitment to competence, management philosophy and operating style, assignment of authority and responsibility, human resource policies and practices, and operational structure significantly enhance the financial performance of insurance companies in Kenya. However, while four of the dimensions significantly improved financial performance when assessed independently, the operational structure dimension did not show a significant effect. Nonetheless, the overall contribution of internal control environment to improving financial performance is substantial, underscoring the importance of these systems in enhancing organizational outcomes (Kithinji, 2021; Mwangi & Wanjala, 2021).

Regarding the second objective, the study concludes that the internal audit function, with its key dimensions including monitoring and evaluation, fraud prevention, detection and control, risk-based planning, and internal audit capacity, significantly contributes to improving the financial performance of insurance companies in Kenya. However, the effect of poor reporting diminished the overall impact of the internal audit function. Strengthening internal audit functions is critical to enhancing operational efficiency and mitigating risks, which, in turn, drives improved performance in the insurance sector (Mwangi, 2020; Ochieng et al., 2023).

### **5.1 Recommendations**

Based on the first conclusion, it is recommended that the organizational structure of insurance companies be enhanced to strengthen the overall effect of the internal control environment on financial performance. Improving organizational structure can help facilitate clearer lines of



authority, better allocation of responsibilities, and improved coordination within the company, all of which contribute to stronger financial outcomes. This improvement can be achieved through the commitment of management and boards to strengthen their organizational structures, ensuring they are designed to foster better decision-making, accountability, and transparency (Mwangi & Wanjala, 2021; Kithinji, 2021).

Based on the second conclusion, it is recommended that internal audit function practices specifically monitoring and evaluation, fraud prevention, detection and control, risk-based planning, and internal audit capacity be significantly improved through targeted training for insurance officers responsible for managing risks. Organizations should invest in training programs that enhance the capabilities of employees to assess and mitigate emerging risks, such as cyber threats and data breaches. Additionally, insurance companies should undergo regular audits focused on risk management practices, utilizing tools like big data analytics and cyber security audits to minimize risks and enhance organizational resilience (Otieno & Muturi, 2022; Mwaura et al., 2020).

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