

AUDIT COMMITTEE DIVERSITY, FIRM SIZE AND FINANCIAL PERFORMANCE OF INSURANCE COMPANIES IN KENYA

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ABSTRACT

Statement of the Problem: Kenyan insurers continue to experience performance instability, weak profitability, and firm failures despite ongoing governance reforms. This raises concern about whether governance mechanisms, particularly audit committee diversity, translate into improved financial outcomes and whether organisational scale conditions these effects.

Purpose of the Study: This study examined the effect of audit committee diversity on the financial performance of insurance companies in Kenya and assessed whether firm size moderates this relationship within a regulated insurance environment.

Research Methodology: The study adopted a positivist philosophy and a causal research design. A census approach was applied, covering 49 insurance firms operating in Kenya over the period 2015 to 2024, resulting in balanced panel data from 44 firms. Secondary data were obtained from audited financial statements, annual reports, and regulatory publications. Audit committee diversity was measured using gender and nationality composition, financial performance was proxied by return on equity (ROE), and firm size was measured using total assets. Data were analysed using descriptive statistics and panel regression techniques, including random and fixed effects models with cluster-robust standard errors. Moderation analysis was conducted using interaction terms between audit committee diversity and firm size.

Findings: The results show that audit committee diversity has a negative but statistically non-significant association with ROE. Firm size exhibits a positive but non-significant relationship with financial performance. The interaction between audit committee diversity and firm size is also not statistically significant, indicating that firm size does not moderate the relationship between diversity and financial performance. These findings suggest that the effect of audit committee diversity on firm performance remains consistent across firms of different sizes. The study draws on signalling theory, economies of scale theory and shareholder primacy theory to explain governance-performance relationships in a regulated financial sector.

Conclusion: The findings contribute to governance literature by demonstrating that audit committee diversity does not yield differential financial outcomes across firms of varying sizes, highlighting the context-dependent nature of governance effects.

Recommendation: For practice, boards should focus on enhancing the functional contribution of diverse members rather than relying on diversity alone to improve performance. For policy, regulators such as the Insurance Regulatory Authority should prioritise strengthening the operational effectiveness of audit committees rather than assuming that firm size will enhance governance outcomes.

Keywords: *Audit Committee Attributes, Firm Size, Financial Performance, Insurance Governance, Kenya*

INTRODUCTION

The insurance sector plays a significant role in economic systems through risk transfer, capital mobilisation, and financial intermediation (Horvey et al., 2024). Global insurance premiums reached approximately US\$7.19 trillion in 2023, representing about 7 percent of world GDP (Swiss Re Sigma No. 3, 2024). This scale reflects the sector's contribution to economic stability and capital formation. Despite this importance, insurance firms remain exposed to agency conflicts arising from the separation of ownership and control, where managerial interests may diverge from those of shareholders (Berle & Means, 1932; Jensen & Meckling, 1976; Fama & Jensen, 1983). In response to these challenges, the audit committee has emerged as a key governance mechanism intended to strengthen monitoring, enhance transparency, and reduce information asymmetry between insiders and external stakeholders.

Within this governance structure, audit committee diversity has received growing attention as a factor that may influence oversight quality, decision-making processes, and financial outcomes (Mwangi et al., 2017; Arenas-Torres et al., 2021; Rezaee & Haidarinezhad, 2025). Diversity in terms of gender and nationality is associated with broader perspectives, improved deliberation, and enhanced accountability, which may affect how firms manage risk and generate returns. International governance reforms have reinforced the role of audit committees and increasingly recognise the importance of board composition. In the United States, the Treadway Commission Report (1987) and the Sarbanes-Oxley Act (2002) strengthened requirements for audit committee independence and effectiveness. In the United Kingdom, the Cadbury Report (1992) and the Smith Report (2003) formalised expectations regarding audit committee composition, while similar developments in Australia emphasised governance structures that support accountability and transparency (Munro & Buckby, 2008). These reforms have created a foundation for examining how specific attributes such as audit committee diversity influence firm performance and whether such effects vary across firms of different sizes.

In Sub-Saharan Africa, corporate governance reforms have progressively institutionalised audit committees within organisational oversight structures across African jurisdictions. In South Africa, successive King Reports on Corporate Governance have strengthened expectations around audit committee composition, accountability, and effectiveness, with increasing attention to diversity as a component of sound governance practice (Institute of Directors (IOD), 2002, 2009,

2016). These reforms recognise that diverse audit committees can enhance oversight quality through broader perspectives and improved decision-making. In Egypt, regulatory developments followed a phased approach, beginning with Central Bank directives requiring public banks to establish audit committees responsible for financial reporting, external audit coordination, and internal controls. These requirements were later extended to listed firms through capital market regulations, with subsequent governance codes placing emphasis on board composition and diversity as elements that support transparency and accountability (Elhawary, 2021).

In Nigeria, audit committees were formalised through statutory provisions under the Companies and Allied Matters Act and reinforced through securities regulations and sector-specific governance codes, including those applicable to insurance firms (Atu, 2014). While these reforms established audit committees as mandatory monitoring structures, emerging governance discourse highlights that the effectiveness of such structures depends not only on their existence but also on their composition, including diversity attributes. Across these jurisdictions, the regulatory trajectory reflects a shift from establishing audit committees as structural requirements to recognising the importance of composition, particularly diversity, in shaping governance outcomes. This evolution provides a basis for examining how audit committee diversity influences financial performance and whether firm size conditions these effects within insurance firms.

In Kenya, the insurance industry continues to face persistent challenges, including low penetration, overcapacity, pricing competition, governance weaknesses, and fraudulent claims (SIB Report, 2013). Insurance penetration in Kenya shows a sustained downward trend over the study period. It dropped from 2.79% in 2015 to 2.75% in 2016 and 2.71% in 2017. It dropped further to 2.43% in 2018 and 2.24% in 2021, and then rose slightly to 2.4% in 2024 (Association of Kenyan Insurers, 2016, 2017; Insurance Regulatory Authority (IRA), 2017, 2021, 2024; Swiss Re Institute, 2024), remaining below the global average of approximately 7% and the African average of about 3.4%. This remains below the global average of 7 percent and the African average of 3.4 percent. Despite recording gross written premiums of Kshs. 395.3 billion and total assets of Kshs. 1,237.41 billion in 2024, the sector continues to experience firm failures and financial distress, often associated with governance weaknesses and risk management challenges (IRA, 2024; Kiptoo et al., 2021; Kitaka et al., 2020). Governance reforms in Kenya have formalised the role of audit committees through the Centre for Corporate Governance Code, Capital Markets Authority guidelines, and

Insurance Regulatory Authority governance framework, establishing audit committees as key oversight structures within insurance firms (Gakeri, 2013). However, increasing attention has shifted from the existence of these structures to their composition, particularly audit committee diversity.

Diversity in terms of gender and nationality is viewed as a mechanism that can enhance oversight quality, broaden perspectives, and strengthen decision-making processes, which may influence financial performance outcomes (Angsoyiri et al., 2025). Despite these developments, it remains unclear whether audit committee diversity translates into improved financial performance within the Kenyan insurance sector and whether such effects vary across firms of different sizes. Given the variation in organisational scale, resource capacity, and market positioning among insurers, firm size may condition how diversity influences performance. These considerations raise continued interest in examining the diversity–performance relationship and assessing whether firm size moderates this linkage within the Kenyan insurance industry.

Firm size introduces an important dimension to the relationship between audit committee diversity and financial performance. Larger insurers often possess broader capital bases, more diversified portfolios, and more developed internal control systems, which may influence financial outcomes (Asola et al., 2023). Organisational scale can also affect the implementation and effectiveness of governance structures, as larger firms are more likely to attract diverse board members with varied professional and demographic backgrounds. This can shape the composition of audit committees and influence how diversity contributes to oversight quality and decision-making processes (Ackah et al., 2024). Prior literature shows that firm size is positively associated with financial performance due to economies of scale, operational efficiency, and access to resources (Kyere & Ausloos, 2020).

In larger organisations, diverse audit committees are more likely to be embedded within structured governance systems, supported by stronger regulatory oversight and greater resource capacity, which can enhance their contribution to decision-making and oversight processes. In smaller firms, constraints in resources and less formalised systems may limit the extent to which diverse perspectives are effectively incorporated, reducing their potential impact on financial outcomes. Although this reasoning suggests a role for organisational scale, there is limited empirical clarity on whether firm size alters the relationship between audit committee diversity and performance in

Kenya's insurance sector. This study therefore investigates the effect of audit committee diversity on financial performance, proxied by return on equity (ROE), while examining the moderating role of firm size. The analysis focuses on whether the influence of diversity differs between large and small insurers operating within a regulated financial environment.

STATEMENT OF THE PROBLEM

The insurance sector remains a key pillar of economic stability through its role in risk pooling, financial protection, and long-term capital mobilisation (Swiss Re Sigma No. 3, 2024; Insurance Regulatory Authority (IRA), 2024). In Kenya, gross written premiums reached Kshs. 395.3 billion in 2024, representing approximately 2.4 percent of GDP, while insurance density increased from Kshs. 7,009 in 2023 to Kshs. 8,105.21 in 2024 (IRA, 2024). Despite this progress and the sector's growth potential under Vision 2030, performance volatility remains evident. Several insurers have experienced financial distress, statutory intervention, or market exit, often associated with governance deficiencies, weak risk management systems, and operational inefficiencies (Kiptoo et al., 2021; Kitaka et al., 2020). Profitability trends further reflect this instability, with return on equity declining sharply from 11.4 percent in 2015 to 3.9 percent in 2020 before recovering to 8.4 percent in 2024, while penetration levels continue to lag behind global and continental benchmarks (IRA, 2024; Swiss Re Sigma No. 3, 2024).

In response, governance reforms have promoted audit committees as mechanisms for strengthening oversight and improving financial reporting quality. However, attention has increasingly shifted from the existence of these structures to their composition, particularly audit committee diversity. Diversity in terms of gender and nationality is expected to enhance oversight by introducing varied perspectives, improving deliberation, and strengthening monitoring processes. Empirical evidence, however, remains inconclusive. Some studies report that gender-diverse audit committees are associated with improved financial performance and reporting quality (Rezaee & Haidarinezhad, 2025), while others find weak, mixed, or even negative effects depending on context and measurement (Agyemang, 2020; Guest, 2019). These inconsistencies suggest that audit committee diversity does not produce uniform outcomes and may depend on underlying organisational conditions. One such condition is firm size.

Insurance firms differ significantly in scale, resource endowment, and operational complexity, which may influence both the composition of audit committees and the extent to which diversity contributes to performance. Evidence on the moderating role of firm size remains equally varied. Some studies show that firm size strengthens governance-performance relationships by enhancing organisational capacity and formalisation (Ayumba et al., 2024; Githaiga et al., 2022), while others report negative or insignificant moderation effects, indicating that scale may introduce inefficiencies or fail to condition governance outcomes (Wasonga et al., 2020). Mixed findings further indicate that firm size may strengthen some governance effects while leaving others unchanged (Solikhah et al., 2022).

Within the Kenyan insurance sector, limited empirical evidence exists on whether firm size alters the relationship between audit committee diversity and financial performance. Given the observed variation in both governance effectiveness and firm scale, this gap remains important. This study therefore examines the direct effect of audit committee diversity on financial performance, measured using return on equity, and tests whether firm size moderates this relationship. Specifically, it evaluates whether organisational scale strengthens, weakens, or does not alter the influence of audit committee diversity on financial performance among insurance companies in Kenya.

OBJECTIVE OF THE STUDY

To assess the moderating effect of firm size on the relationship between audit committee diversity and financial performance of insurance companies in Kenya.

RESEARCH HYPOTHESIS

H₀₁: Firm Size has no significant moderating influence on the relationship between audit committee diversity and financial performance of insurance firms in Kenya

LITERATURE REVIEW

The review draws on signaling theory and shareholder primacy theory to explain how audit committee diversity functions as a governance mechanism influencing financial performance, and how firm size conditions the effectiveness and interpretation of this relationship.

THEORETICAL FRAMEWORK

Signaling Theory

Signalling theory, originating from the work of Akerlof (1970) and formalised by Spence (1973), explains how informed parties convey credible information to reduce information asymmetry in markets (Akerlof, 1970; Spence, 1973). In corporate contexts, governance structures and board characteristics act as observable signals of firm quality, transparency, and future prospects (Connelly et al., 2011). Within insurance firms, audit committee diversity, particularly in terms of gender and nationality, signals inclusiveness, broader oversight perspectives, and stronger governance practices to shareholders, regulators, and policyholders (Choi et al., 2014). These signals may influence investor confidence and, in turn, affect financial performance outcomes such as return on equity. However, the strength and interpretation of these signals are not uniform across firms. Firm size plays an important role in shaping how governance signals are perceived and valued. Larger firms typically attract greater market attention and operate under stricter regulatory scrutiny, which enhances the visibility and credibility of diversity as a governance signal. In contrast, smaller firms may experience weaker signalling effects due to limited disclosure, lower visibility, and constrained governance capacity. In this study, signalling theory explains how audit committee diversity conveys governance quality and how firm size conditions the extent to which these signals translate into financial performance.

Economies of Scale Theory

Economies of scale theory explains the role of firm size in shaping governance and performance by positing that average costs decline as organisational scale increases due to the spreading of fixed costs, specialisation, and efficiency gains (Smith, 1776; Marshall, 1890; Sraffa, 1926; Coase, 1937). In corporate governance, audit committees entail substantial fixed and semi-fixed costs, including remuneration of qualified members, compliance systems, and audit processes, which do not increase proportionately with firm size, allowing larger firms to operate governance structures more efficiently. In relation to audit committee diversity, firm size influences both the ability to attract diverse members and the extent to which such diversity can be effectively utilised. Larger firms typically possess more developed internal control systems, internal audit functions, and financial reporting infrastructures that complement diverse perspectives and enhance oversight quality, whereas smaller firms face higher average governance costs and may lack the

complementary systems required to translate diversity into improved financial performance (Williamson. 1985).

Shareholder Primacy Theory

Shareholder primacy theory, advanced by Milton Friedman, posits that the primary objective of the firm is to maximise shareholder wealth through improved financial performance, dividends, and firm value (Friedman, 1970). The theory emphasises governance mechanisms that enhance accountability, transparency, and efficiency in financial decision-making in order to protect investor interests (Styhre, 2018). Within this framework, audit committee diversity contributes to governance quality by introducing varied perspectives that can strengthen monitoring, improve deliberation, and enhance the integrity of financial reporting processes. The effectiveness of diversity in achieving these outcomes, however, may depend on organisational context. Firm size influences the capacity of firms to translate governance mechanisms into financial results. Larger insurance firms often operate with stronger governance systems, broader capital bases, and higher disclosure requirements, which can enhance the contribution of diversity to financial performance. Smaller firms, on the other hand, may face structural and resource limitations that reduce the impact of diversity on financial outcomes. In this study, shareholder primacy theory explains how audit committee diversity influences financial performance, measured using return on equity, while recognising firm size as a moderating factor that conditions the strength of this relationship.

EMPIRICAL REVIEW

Several empirical studies report a positive relationship between audit committee diversity and financial performance, alongside evidence that firm size can strengthen governance effects. Evidence shows that gender-diverse audit committees improve firm performance by enhancing oversight quality and decision-making effectiveness (Rezaee & Haidarinezhad, 2025; Gregory et al., 2024). Additional studies indicate that diversity contributes more strongly when combined with broader governance structures, reinforcing monitoring capacity and accountability (Singhania & Panda, 2024). In the Kenyan context, audit committee diversity has been associated with improved financial reporting quality, reflecting stronger governance discipline (Mwangi et al., 2017). In terms of moderation, several studies show that firm size strengthens governance–performance relationships by providing the organisational capacity and formal structures necessary for governance mechanisms to be effective (Ayumba et al., 2024; Githaiga et al., 2022; Saleh, 2021).

These findings support the view that diversity is more likely to translate into improved performance in larger and more structured firms.

In contrast, other studies report negative relationships or adverse moderating effects, suggesting that diversity and firm size do not always enhance financial outcomes. Some evidence shows that gender diversity within audit committees may be inversely related to firm performance, indicating that diversity may introduce coordination challenges or inefficiencies in certain contexts (Agyemang, 2020). Similarly, nationality diversity has been linked to reduced performance due to communication barriers and cultural differences (Khan et al., 2019). In relation to moderation, firm size has been found to weaken financial relationships, as seen in studies where organisational scale dampens the impact of governance or financial variables on performance (Wayongah & Mule, 2019; Mutende et al., 2017). These findings suggest that increased size may introduce complexity and coordination costs that limit the effectiveness of diversity in improving performance outcomes.

Other empirical findings indicate no statistically significant relationship between audit committee diversity and financial performance, as well as no moderating role of firm size. Some studies find that diversity does not improve monitoring outcomes or financial performance, even in firms with higher agency concerns (Guest, 2019). Additional evidence shows that the effect of diversity varies across performance measures and institutional settings, with some dimensions of diversity producing insignificant or inconsistent results (Nyandema et al., 2016; Arenas-Torres et al., 2021). Similarly, several studies report that firm size does not moderate governance–performance relationships, indicating that organisational scale does not consistently influence how governance mechanisms translate into outcomes (Wasonga et al., 2020; Pangaribuan, 2018). These results highlight that both the direct effect of audit committee diversity and its interaction with firm size remain context-dependent and inconclusive. Given these mixed findings, the moderating role of firm size in the relationship between audit committee diversity and financial performance remains empirically unresolved. This study therefore tests the following hypothesis:

H₀: Firm size has no significant moderating influence on the relationship between audit committee diversity and financial performance of insurance firms in Kenya.

CONCEPTUAL FRAMEWORK

The conceptual framework presents the relationship between audit committee diversity and the financial performance of insurance companies in Kenya, with firm size incorporated as a moderating variable. Audit committee diversity, captured through gender and nationality composition, is treated as the independent variable and reflects the extent to which varied perspectives are embedded within the oversight structure of the firm. This diversity is expected to influence monitoring effectiveness, quality of deliberation, and governance processes within audit committees. Financial performance, measured using ROE, represents the dependent variable and indicates how effectively firms generate returns for shareholders from available resources. The framework assumes that audit committee diversity can influence financial outcomes through its impact on oversight quality and decision-making processes. Firm size moderates this relationship by shaping both the context and capacity within which diversity operates. Larger firms typically operate under more structured governance systems, stronger regulatory oversight, and greater resource availability, which may enhance the integration and effectiveness of diverse perspectives in audit committees. In contrast, smaller firms may face limitations in fully utilising diversity due to less formalised systems and constrained organisational capacity.

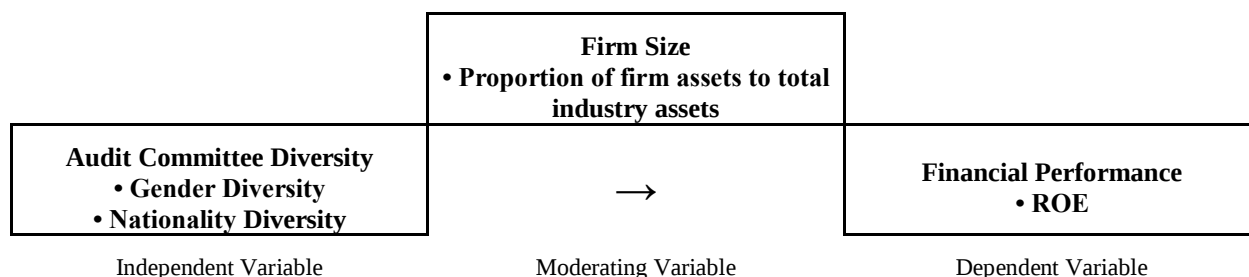


Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

The study adopted a positivist philosophy and a causal research design to examine the effect of audit committee diversity on financial performance and to determine whether firm size moderates this relationship in Kenyan insurance companies. The population comprised 49 insurers operating between 2015 and 2024. A census approach was applied, resulting in balanced panel data from 44 firms with complete records. Secondary data were obtained from audited financial statements, annual reports, and regulatory publications using a structured data capture sheet covering audit committee diversity, firm size, and financial performance. Audit committee diversity was

measured using gender and nationality composition, firm size was measured using total assets, and financial performance was proxied by ROE. A pilot test involving six firms confirmed data consistency and feasibility. Data analysis combined descriptive statistics and panel regression techniques using R and SPSS to estimate both direct and moderating effects. The empirical model specified audit committee diversity as the explanatory variable, firm size as the moderating variable, and included an interaction term between diversity and firm size to test whether organisational scale conditions the diversity–performance relationship across insurance firms in Kenya.

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 (X_{1it} * X_{2it}) + \varepsilon_{it}$$

Where:

Y_{it} = ROE of firm i at time t

X_{1it} = Audit committee diversity

X_{2it} = Firm size

$X_{1it} \times X_{2it}$ = Interaction term between audit committee diversity and firm size

β_0 = Constant term

$\beta_1, \beta_2, \beta_3$ = Coefficients to be estimated

ε_{it} = Error term

Audit committee diversity was operationalized through gender diversity, measured as the proportion of female members, and nationality diversity, measured as the proportion of foreign nationals, combined into a Diversity Index computed as $((\text{proportion of female members} \times 3) + (\text{proportion of foreign nationals} \times 2)) / 5$. Firm size, the moderating variable, was measured as the proportion of a firm's total assets relative to total industry assets. Financial performance, the dependent variable, was measured using ROE, calculated as profit after tax divided by total shareholders' equity.

Diagnostic testing was conducted to confirm that the multiple regression model met key assumptions required for reliable estimation. Multicollinearity was examined using correlation matrices and the Variance Inflation Factor (VIF), where correlation coefficients above 0.7 and VIF values above 10 indicated problematic interdependence among predictors; corrective steps included variable refinement, composite construction, or removal of redundant predictors. Normality of residuals was assessed using the Anderson–Darling test alongside graphical

inspection, with non-normality addressed through large sample properties and, where necessary, data transformation. Serial correlation in residuals was evaluated using the Breusch–Godfrey procedure to detect higher-order dependence, since correlated errors distort standard errors and inference. Heteroscedasticity was tested using the White test, with robust standard errors applied where variance instability was detected. Linearity between predictors and outcome was evaluated using ANOVA. Given the panel structure, stationarity was examined using the Augmented Dickey–Fuller test to confirm stable statistical properties over time. Model significance and explanatory power were then evaluated using the coefficient of determination, F-statistics, and ANOVA, testing the joint hypothesis that audit committee attributes and their interactions with firm size do not explain variation in ROE; rejection of the null indicated overall model validity and statistical significance.

FINDINGS AND DISCUSSION

This section presents the empirical findings of the study. It begins with descriptive statistics and correlation analysis, followed by random and fixed effects cluster-robust moderation results, and concludes with hypothesis testing.

DESCRIPTIVE STATISTICS

Table 1: Audit Committee Attributes, Firm Size and Financial Performance

Statistic	Diversity	Firm Size	ROE
Range	73%	15.66%	276.06%
Minimum	0.0%	0.0875%	-88.87%
Maximum	73.3%	15.74%	187.19%
Mean	25%	1.961%	5.19%
Sta. Dev	15.2%	3.102%	20.94%
Median	24%	0.8605%	6.96%
Mode	15%	0.2503%	9.74%
Skewness	0.834	2.843	0.436
SE (Skewness)	0.116	0.116	0.116
Kurtosis	0.565	7.347	16.073
SE (Kurtosis)	0.232	0.232	0.232

Standard Error for Skewness: 0.116; Standard Error for Kurtosis: 0.232

Across the 440 firm year observations, audit committee diversity ranged from 0% to 73.3% (range = 73%), with a mean of 25% (SD = 15.2%), a median of 24%, and a mode of 15%. This indicates relatively low representation of women and foreign members in most audit committees, with many

firms clustered at the lower end of diversity levels. Firm size, measured as the percentage of total firm assets relative to total industry assets, ranged from 0.0875% to 15.74% (range = 15.66%), with a mean of 1.961% (SD = 3.102%), a median of 0.8605%, and a mode of 0.2503%. This shows that most insurers controlled a small share of total industry assets, while a few firms accounted for a disproportionately large share. The distribution of firm size is strongly positively skewed (skewness = 2.843) and leptokurtic (kurtosis = 7.347), which confirms the presence of asset concentration among a small number of dominant firms. Firm financial performance, measured by return on equity (ROE), ranged from -88.87% to 187.19% (range = 276.06%), with a mean of 5.19% (SD = 20.94%), a median of 6.96%, and a mode of 9.74%. This indicates substantial variability in profitability across firms. The distribution shows moderate positive skewness (skewness = 0.436), reflecting the influence of high-performing firms, while the kurtosis value (16.073) indicates a leptokurtic distribution with the presence of extreme observations.

CORRELATION ANALYSIS

Table 2 presents the Pearson correlation coefficients among the study variables.

Table 2: Pearson Correlation

Variable	Statistic	Firm Performance	Audit Committee Diversity	Firm Size
Firm Performance	r	1		
Audit Committee Diversity	r	-0.258**	1	
Audit Committee Diversity	Sig.	0.000		
Firm Size	r	0.469**	-0.513**	1
Firm Size	Sig.	0.000	0.000	

** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).

ROE is negatively and statistically associated with audit committee diversity ($r = -0.258$, $p < 0.01$), indicating that firms with higher levels of diversity tend to report lower short-term financial performance within the sampled insurance firms. Firm size shows a positive and statistically significant association with ROE ($r = 0.469$, $p < 0.01$), which indicates that larger firms record higher financial performance. This suggests that scale advantages, resource capacity, or market position may contribute to improved profitability among larger insurers. Firm size is negatively and significantly correlated with audit committee diversity ($r = -0.513$, $p < 0.01$), indicating that larger firms tend to have relatively lower levels of diversity within their audit committees. This inverse relationship suggests that increases in firm size are not accompanied by proportional increases in diversity representation in this context.

RANDOM CLUSTER-ROBUST MODERATION EFFECTS

The random effects moderation model with firm-clustered standard errors examines whether firm size moderates the relationship between audit committee diversity and return on equity (ROE).

Table 3: Random Cluster-Robust Moderation Effects

Coefficient	β	SE	t	P Value
Intercept	-0.004	0.020	-0.029	0.835
Diversity	-0.061	0.090	-0.680	0.497
Size	2.534	1.585	1.599	0.111
Diversity $\times$ Size	-2.752	2.211	-1.245	0.214
Model Statistics				
R ² (within)	0.592			
R ² (between)	0.589			
R ² (overall)	0.591			
Wald χ^2 (cluster-robust)	724.967			<0.001
Observations (N)	440			
Firms	44			

Using the random effects cluster-robust moderation results in Table 3, the fitted moderation model is:

$$ROE_{it} = -0.004 - 0.061X1_{it} + 2.534X2_{it} - 2.752(X2_{it} \times X1_{it})$$

Where i indexes insurance companies and t indexes years, ROE_{it} is return on equity, $X2_{it}$ is firm size, and the interaction terms $X2_{it} \times X1_{it}$ capture how firm size moderates diversity.

The results show that audit committee diversity is negatively associated with ROE, although the relationship is not statistically significant ($\beta = -0.061$, $SE = 0.090$, $t = -0.680$, $p = 0.497$). Firm size records a positive coefficient ($\beta = 2.534$, $SE = 1.585$, $t = 1.599$, $p = 0.111$), indicating that larger firms tend to have higher financial performance, although this effect is not statistically significant at conventional levels. The interaction term between diversity and firm size is negative and not statistically significant ($\beta = -2.752$, $SE = 2.211$, $t = -1.245$, $p = 0.214$), indicating that firm size does not moderate the relationship between audit committee diversity and ROE in this model. The model explains 59.2% of the within-firm variation and 58.9% of the between-firm variation in ROE. The overall explanatory power is approximately 59.1%, based on consistent within and between R^2 values. The Wald χ^2 statistic (724.967, $p < 0.001$) indicates that the model is jointly statistically significant, confirming that the included variables collectively explain variation in firm performance across the 440 firm-year observations from 44 insurance firms.

FIXED CLUSTER-ROBUST MODERATION EFFECTS

The fixed effects moderation model with firm-clustered standard errors examines whether firm size moderates the relationship between audit committee diversity and ROE within insurers over time.

Table 4: Fixed Cluster-Robust Moderation Effects

Coefficient	β	SE	t	P Value
Diversity	-0.062	0.080	-0.775	0.439
Size	2.802	1.493	1.877	0.061
Diversity $\times$ Size	-3.610	2.800	-1.289	0.198
Model Statistics				
R^2 (within)	0.640			
R^2 (between)	0.599			
R^2 (overall)	0.620			
Wald χ^2 (cluster-robust)	680.114			<0.001
Observations (N)	440			
Firms	44			

The results show that audit committee diversity is negatively associated with ROE, although the relationship is not statistically significant ($\beta = -0.062$, $SE = 0.080$, $t = -0.775$, $p = 0.439$). This

indicates that changes in diversity within firms are not associated with meaningful changes in financial performance over time. Firm size records a positive coefficient ($\beta = 2.802$, $SE = 1.493$, $t = 1.877$, $p = 0.061$), suggesting that increases in firm size are associated with higher ROE within firms, although the effect is only marginally significant at the 10 percent level. The interaction between diversity and firm size is negative and not statistically significant ($\beta = -3.610$, $SE = 2.800$, $t = -1.289$, $p = 0.198$), indicating that firm size does not moderate the relationship between audit committee diversity and ROE within insurers over time. The model explains 64.0% of the within-firm variation and 59.9% of the between-firm variation in ROE, indicating an approximate overall explanatory capacity of about 62%. The Wald χ^2 statistic (680.114, $p < 0.001$) indicates that the model is jointly statistically significant, confirming that the included variables collectively explain variation in financial performance across the 440 firm-year observations from 44 insurance firms.

HYPOTHESIS TESTING

The study tested the null hypothesis that firm size has no significant moderating influence on the relationship between audit committee diversity and financial performance of insurance firms in Kenya (H_0). Moderation was evaluated using the interaction term from the random effects model with cluster-robust standard errors. The results show that audit committee diversity has a negative but statistically non-significant association with return on equity ($\beta = -0.061$, $p = 0.497$), while firm size has a positive but non-significant effect ($\beta = 2.534$, $p = 0.111$). The interaction term between diversity and firm size is also not statistically significant ($\beta = -2.752$, $p = 0.214$), indicating that firm size does not moderate the relationship between audit committee diversity and financial performance. Based on these results, the null hypothesis is not rejected. This indicates that firm size does not exert a statistically significant moderating influence on the relationship between audit committee diversity and financial performance of insurance firms in Kenya.

The results show that audit committee diversity is negatively associated with ROE, although the effect is not statistically significant, while firm size records a positive but non-significant coefficient. The key result is the interaction term, which is also not statistically significant, indicating that firm size does not condition the relationship between diversity and financial performance. This implies that the influence of diversity on ROE remains stable across firms of different sizes. In practical terms, increasing firm size does not strengthen or weaken the performance implications of audit committee diversity. The findings point to a context where

governance structures exist, but their financial effects are not sensitive to organisational scale. In regulated sectors such as insurance, application of uniform governance structures across all firms irrespective of size, negate scale advantages of large firms.

Empirical evidence on audit committee diversity presents mixed results, and this variation becomes more pronounced when interaction effects are considered. Several studies report a positive association between diversity and firm performance, particularly where diversity enhances oversight quality and decision-making. For instance, Rezaee and Haidarinezhad (2025) and Gregory et al. (2024) find that gender-diverse audit committees improve firm performance, while Singhanian and Panda (2024) show that diversity contributes positively when combined with other governance attributes. Evidence from Kenya also indicates beneficial effects, with Mwangi et al. (2017) linking diversity to improved financial reporting quality. In contrast, other studies report weak, insignificant, or negative effects, including Agyemang (2020) and Guest (2019), alongside mixed outcomes across contexts (Dam, 2018; Nyandema et al., 2016; Arenas-Torres et al., 2021). These differences indicate that diversity outcomes depend on institutional conditions and how diversity operates alongside other governance mechanisms. The current findings extend this evidence by showing that even when firm size is introduced as a conditioning variable, diversity does not exhibit differential effects across firms, reinforcing the view that diversity alone may not drive financial performance.

The absence of a statistically significant moderating effect of firm size aligns with studies showing that size does not uniformly influence governance–performance relationships. Some studies report that firm size strengthens governance effects, particularly in structured financial institutions (Ayumba et al., 2024; Githaiga et al., 2022). Others find no moderating effect of firm size in governance contexts similar to audit committees (Wasonga et al., 2020; Pangaribuan, 2018). Mixed evidence is also reported where firm size moderates certain governance attributes but not others (Solikhah et al., 2022; Obaje et al., 2021). The findings in this study fall within this group, indicating that firm size does not alter the diversity–performance relationship. This suggests that the structural advantages associated with larger firms, such as resource access and formal systems, do not translate into stronger or weaker financial effects of audit committee diversity. Instead, the governance–performance link remains largely invariant to firm size in this setting.

From a theoretical perspective, the findings can be interpreted through signalling theory and shareholder primacy theory, with particular emphasis on the interaction between audit committee diversity and firm size. Signalling theory explains audit committee characteristics as observable indicators used by firms to convey governance quality to external stakeholders (Spence, 1973; Connelly et al., 2011). In this context, diversity and firm size operate as signals of inclusiveness and oversight breadth, although the non-significant interaction suggests that firm size does not strengthen or weaken the credibility or effectiveness of this signal. Economies of scale theory provides a structural perspective by linking firm size to efficiency gains arising from the spreading of fixed governance costs, specialisation, and operational capacity (Smith, 1776; Marshall, 1890; Coase, 1937). While larger firms are expected to utilise governance mechanisms more efficiently, the absence of a significant interaction suggests that scale advantages do not amplify the performance effects of audit committee diversity, indicating that diversity-related governance benefits are not dependent on firm size. Shareholder primacy theory frames performance in terms of shareholder returns and would expect governance mechanisms to enhance financial outcomes where they improve efficiency (Friedman, 1970; Jensen & Meckling, 1976). The absence of a significant diversity $\times$ size interaction indicates that scale advantages do not translate into stronger performance effects from diversity, suggesting that the link between governance and shareholder returns remains conditional on other organisational and regulatory factors. In combination, these perspectives indicate that while audit committee diversity contributes to governance quality, its performance implications are not contingent on firm size within the observed context.

CONCLUSIONS

The findings show that firm size does not exert a statistically significant moderating influence on the relationship between audit committee diversity and financial performance in Kenyan insurance firms. The interaction term between diversity and firm size is not significant, indicating that the effect of diversity on return on equity remains unchanged across firms of different sizes. This implies that organisational scale does not strengthen or weaken the performance implications of audit committee diversity. This could indicate the effect of uniform regulatory measures by Insurance Regulatory Authority in Kenya (IRA). All insurance companies in Kenya are required to set up audit committees, with prescriptions on standard practises. The effect of uniform

compliance of all firms irrespective of size, therefore, negates the scale advantages which would accrue to large firms.

RECOMMENDATIONS

Firm size should therefore be treated as a contextual factor that does not alter the effectiveness of audit committee diversity in influencing financial performance. Governance design should not rely on organisational scale to enhance or offset the contribution of diversity within audit committees. Instead, firms should focus on improving the functional quality of diversity by ensuring that diverse members are effectively integrated into decision-making processes, supported with relevant expertise, and aligned with committee objectives. Since the results indicate that diversity does not translate into differential financial outcomes across firms of varying sizes, both large and small insurers can adopt similar approaches to diversity without expecting scale-related advantages. Regulators and boards should prioritise strengthening the operational effectiveness of audit committees, rather than relying on firm size as a mechanism for enhancing governance outcomes, so that oversight functions contribute to long-term stability and credibility within the insurance sector.

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