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Operational Risk and Financial Performance of Insurance Companies in Kenya

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Abstract

Purpose: The insurance sector plays a crucial role in economic expansion because it facilitates protection, capital formation, and trade. A steady insurance sector that can reduce hazards and guarantees long-term economic expansion. Kenya's insurance sector has seen a drop in profitability, which has prompted concerns about whether the risks facing the sector are to blame for the downward trend. Uncertainties and risks could cause an organization to fall short of its goals. As a result, the study evaluated how operational risk affected Kenyan insurance companies' financial results.

Methodology: All 58 regulated insurance companies that operated in Kenya between 2015 and 2024 was the study's target audience. A census method was applied. The study employed an explanatory research methodology. The Insurance Regulatory Authority received audited financial accounts for the years 2015–2024, which served as the source of secondary data. Panel data was analyzed using panel linear regression modeling, correlation analysis, and descriptive statistics with the use of STATA software. The results of the study were displayed in figures and tables. To assess the degree to which operational risks impact financial performance over a chosen time period, a panel data regression model was used.

Findings: The results indicated a negative and significant relationship between operational risk and ROE. This suggests that inefficiencies arising from internal processes, system failures, fraud or human errors adversely affected insurer profitability.

Unique Contribution to Theory, Practice and Policy: Agency Theory served as the study's pillars. The research was significant as it provided empirical evidence on the reinsurance risk exposures faced by insurance companies and their effect on overall performance. The findings were beneficial to insurance managers, policymakers, investors, and regulators by offering insights into effective risk management strategies and financial stability measures. Additionally, this study contributed to existing literature on insurance risk management in Kenya's insurance industry and provide recommendations to enhance the resilience of the sector.

Keywords: *Operational Risk, Financial Performance, Insurance Companies, Kenya*

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INTRODUCTION

Financial performance is still a key indicator of an insurance company's viability and success. By facilitating risk management, financial intermediation, and the mobilization of long-term capital, successful insurance businesses in the global financial system make a substantial contribution to economic growth. Insurance companies that do well financially are better equipped to pay claims on time, investment in new ideas, build client trust, and increase shareholder value. Indicators like Return on Equity (ROE), Return on Assets (ROA), and Net Profit Margin can be used to assess financial performance, according to Altman (1968). ROE is a commonly used metric to assess insurers' profitability and ability to create value from the capital of shareholders.

Over the past ten years, the financial performance of the Kenyan insurance sector has displayed a range of trends, influenced by both internal firm characteristics and external economic forces. According to reports by the Insurance Regulatory Authority (IRA, 2023), insurers' profitability varies; some achieve double-digit returns on equity (ROE), while others face ongoing deficits. These discrepancies draw attention to the industry's susceptibility and encourage a more thorough examination of the root reasons. According to Githinji (2019), sustained financial performance is essential for company continuity, enhancing confidence in financial markets, and advancing national development goals in developing nations like Kenya.

The financial performance of insurance businesses also affects several stakeholders, such as shareholders, employees, policyholders, and regulators. Poor performance can lead to insolvency, job losses, and reduced claim settlements, all of which undermine public confidence in the financial system. On the other hand, a successful performance increases employment, investment, and tax revenue, creating a multiplier impact (Ngumi & Gikiri, 2020). As a result, assessing financial performance is an essential way to gauge how well risk management techniques are working within the insurance sector. An essential part of the global financial system is the insurance sector. In 2020, the global insurance premium was 7.4% of global GDP, demonstrating the vital role that insurance plays in guaranteeing sustainable development on a worldwide scale. Financial performance-wise, the COVID-19 pandemic caused the total global direct premiums to drop 1.3% to USD 6,287 billion in 2020, according to Swiss Re Sigma No. 3/2021 statistics. Furthermore, in 2020, insurance premiums from Africa fell 2.9% to USD 60.2 billion. Gross premium performance in 2020 was KES 234.78 billion, down 2.9% in real terms from KES 229.50 billion in 2019. This represents a little 2.3% growth. Kenya ranked fourth in Africa in terms of gross premium revenue, behind Egypt, Morocco, and South Africa (IRA Annual Report, 2020)

Insurance companies take chances for both themselves and their clients, as confirmed by Wani and Ahmad (2015). Since performance and operational efficiency have a direct impact on the market price per share and, consequently, shareholder wealth, the company's leadership aims to maximize both present and future performance. Due to their weaker regulatory frameworks than in developed nations, insurance companies face a number of risks that significantly affect their performance (Omasete, 2014). In developing nations, these risks have a more noticeable effect on their performance (Carrin, Waelkens & Crie, 2005). Wilson (2012) actually emphasizes that a firm's operational outcome is influenced by good risk management, which is an internal issue.

Operational risk is a significant internal danger to insurers' financial performance which can result from malfunctions in internal systems, procedures, personnel, or outside circumstances. Operational risks in Kenya have taken the form of fraud, IT system malfunctions, inadequate

internal controls, and subpar governance frameworks. According to Wairimu (2021), operational risk is a key factor in determining the profitability of regional insurance companies. They contend that ineffective service delivery, hold-ups in processing claims, and cyberthreats directly affect client satisfaction and long-term financial viability.

Understanding the nexus between operational risk and financial performance is important in explaining performance differences among insurance companies. Reduced investor confidence, longer claim settlement times, and worse profitability are all potential outcomes for businesses exposed to numerous mismanaged risks (PwC, 2022). Thus, to ensure long-term financial health, an integrated risk management approach is required. Furthermore, determining the connection between operational risks and financial results aids in the development of regulatory frameworks by oversight organizations, policy recommendations by researchers, and strategic decisions by management. It enables businesses to improve governance structures, connect capital adequacy with risk appetite, and create insurance products that reflect real risk profiles. This study enhances the function of insurance in economic development and builds sector resilience by analyzing this relationship in the Kenyan context

Statement of the Problem

Kenya's insurance sector is vital to the country's economic growth. The industry has been facing a decline in financial performance as the ROE has been going down gradually for the last 10 years. My study used financial performance as independent variable which is being measured by Return on Equity (ROE). A company's profitability in relation to shareholders' equity is determined by the return on equity (ROE), which is one of the most used metrics of financial performance (Kiraithe & Kimutai, 2023). The metrics for financial performance are ROE, ROA and profitability but in my case am selecting ROE because it shows how well an insurer uses shareholders' capital to produce profits. Ideally, a ROE of 8%–12%, according to IRA (2023) is considered healthy for financial institutions in emerging markets like Kenya, enabling firms to grow sustainably and to contribute to the economy. When ROE drops below the ideal level it compromises the contribution of insurance sector which indicates inefficiencies or excessive risk exposure. The average return on equity (ROE) for Kenyan insurance businesses has varied below the optimal threshold, with several companies reporting percentages below 10%, according to the Insurance Regulatory Authority's (IRA) Annual Industry Reports (2015–2024). The average ROE, for instance, was 12.4% in 2016, then fell to -1.3% in 2020. From 2021-2023 it has been below the ideal ROE percentage of 10%. In 2024, it only slightly increased to 7.3% (IRA, 2024). The capacity of insurers to raise capital, grow their business, or successfully underwrite risks is hampered by this ongoing underperformance. As a result, Kenya's progress toward economic resilience and inclusiveness is hampered by slower financial sector expansion, limited investment growth, and decreased job creation in the overall economy.

There is a substantial knowledge gap about the impact of operational risk despite the fact that several studies have examined the financial performance of the Kenyan insurance business. Without clearly stating how these risks affect financial performance, the majority of the material currently in publication concentrates on descriptive trends or financial institutions in general. Furthermore, it is challenging for insurers and regulators to develop risk-sensitive performance improvement methods because there aren't many studies that break down and empirically examine how operational impact ROE over time in the Kenyan setting. The results would help strengthen risk management frameworks, improve insurer solvency, and advance Kenya's larger economic objectives of stability, job creation, and financial sector expansion.

Objectives of the Study

The objective of the study was to assess the effect of operational risk on the financial performance of insurance companies in Kenya.

Theoretical Review

Agency Theory

Jensen and Meckling (1976) first formally introduced agency theory in their landmark work "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure." The idea expands on previous economic theories about the division of ownership and control in firms and principal-agent relationships. The conflict of interest that results when one party (the agent) is expected to act on behalf of another (the principle), particularly when their interests are not entirely aligned. Based on Agency Theory, "Operational Risk" is the independent variable anchored in this research. The theory helps explain how managerial behavior and governance practices affect the frequency and severity of operational failures, which in turn affects Kenyan insurance companies' financial performance as measured by measures like return on equity (ROE).

According to agency theory, managers (agents) in business environments, such as insurance companies, might not always operate in the best interests of shareholders (principals) because of opportunistic behavior, information asymmetry, or conflicting objectives. "Agency costs," like as fraud, ineffective operations, or inadequate internal controls, may result from this imbalance. According to the theory, insufficient internal processes, a lack of supervision, and weak governance frameworks raise the possibility of mistakes, wrongdoing, or system breakdowns in the context of operational risk. As a result, operational risk is not just technological; it is also closely related to organizational governance and human behavior.

A number of fundamental assumptions underpin agency theory, which explains the relationships between principals and agents in an organization. The existence of information asymmetry, where agents, like managers, frequently know more about the business's operations than the principals, like shareholders, is one of the main presumptions. This disparity gives agents the chance to behave in ways that might not be in the principal's best interests. Another presumption is that agents are logical and self-interested, which means that unless they are adequately observed or encouraged, they are likely to pursue their own objectives, such as monetary gain or job security. Additionally, the theory makes the assumption that principals cannot keep a perfect eye on agents' behavior, which leaves space for mistakes, inefficiencies, and even wrongdoing.

Furthermore, agency theory maintains that principal-agent contracts are not comprehensive. It is nearly impossible to foresee and include every potential future event in a contract, particularly in intricate settings like the insurance sector. Agents may be able to take advantage of any holes that result from this. The theory makes the assumption that incentives and oversight tools, such as governance frameworks, internal audits, and performance-based awards, can assist in coordinating the agent's activities with the goals of the principal in order to control these risks. All things considered, these presumptions offer a framework for comprehending how operational risks arise and how prudent governance and strategic interest alignment can reduce them.

Since its introduction by Jensen and Meckling in 1976, agency theory has gained a lot of traction and been developed further. Eisenhardt (1989) affirmed the theory's applicability in

high-risk situations with quantifiable results, while Fama and Jensen (1983) strengthened it by highlighting the division of decision-making and control in organizations. In the insurance sector, Cummins, Lewis, and Wei (2006) found strong links between agency problems and operational failures, supporting the theory's application in financial services.

However, there has also been opposition to the theory. Stewardship Theory was first presented by Donaldson and Davis (1991), who proposed that managers can work in the company's best interests and are not always self-serving. Agency Theory was attacked by Davis, Schoorman, and Donaldson (1997) for ignoring corporate culture, trust, and intrinsic motivation. In a similar vein, Stulz (2005) cautioned that overly stringent control measures could impede creativity and adaptability. In my view, Agency Theory offers a convincing justification for why operational risk continues to exist in the Kenyan insurance sector. Poor governance, weak internal controls, and management's inability to align their interests with shareholders are frequently the primary causes of operational failures, which can range from delayed claims processing to data breaches. The likelihood of agency issues is much greater in a developing market like Kenya, where regulatory enforcement may be uneven.

Empirical Review

In Germany, Stolz and Wedow (2011) investigated how operational risk exposure and financial performance in life and non-life insurers relate to one another. Using Generalized Least Squares (GLS) regression models, they examined panel data for 68 insurance companies from 1997 to 2009. According to their research, lower ROA and ROE were substantially correlated with greater operational risk exposure, as determined by the frequency of loss events and the complexity of internal processes. According to the study, operational inefficiencies that reduced profitability were more likely to occur in major insurers with decentralized procedures and sophisticated IT systems. To lower risk exposure and boost performance, the authors suggested enterprise risk management (ERM) solutions and improved corporate governance.

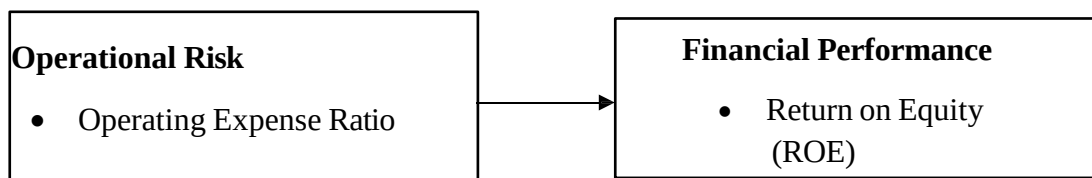
Obasi and Eze (2020) looked on how operational risk affected the financial performance of insurance companies in Nigeria. Their study focused on how internal control failures, fraud, and staff incompetence affect profitability. The researchers used structured questionnaires and a descriptive survey approach to collect data from 25 licensed insurance businesses. In the multiple regression analysis of the data, performance metrics such as Return on Equity (ROE) and Return on Assets (ROA) were employed. Financial performance and operational risk were discovered to be significantly correlated negatively, indicating that businesses with inadequate controls and frequent operational interruptions saw a decline in profitability. The authors came to the conclusion that increasing operational effectiveness and financial outcomes required investments in internal control systems, staff training, and fraud detection tools.

Munyua and Moronge (2018) included operational risk as a variable in their study, even though their primary focus was on business risk management in East African insurance markets. 35 regional insurance companies with operations in Kenya, Uganda, and Tanzania were polled for their study. The authors discovered that, when compared to other risks (such as market or credit risk), operational risk had the most negative link with financial performance using correlation and multiple regression analysis. According to the model, companies with risk management committees and centralized internal audits outperformed those without. The authors came to the conclusion that implementing proactive operational risk frameworks and institutionalizing risk governance were important factors in promoting sustainable financial performance throughout the area.

In Kenya, Koech and Jagongo (2022) looked into how the profitability of insurance businesses registered on the Nairobi Securities Exchange (NSE) was affected by risk governance, particularly operational risk. Using a quantitative research design, the researchers examined panel data from eight publicly traded insurance companies between 2014 and 2020. They assessed how risk governance procedures, such as operational control systems, affected ROE and net income using a panel regression model. The findings demonstrated that reduced profitability was a direct outcome of poor operational governance, such as the absence of risk committees and ineffective internal auditing. The authors came to the conclusion that insurers with well-organized operational risk oversight systems were more financially stable and more equipped to adapt to changes in the market and regulation

Conceptual Framework.

A conceptual framework shows the connection and structure of studied variable in greater depth (Rezigalla, 2020).



Independent Variable

Dependent Variable

Figure 1: Conceptual Framework

METHODOLOGY

Research Design

The study adopted a descriptive research design. A descriptive design is appropriate because it allows the study to systematically assess patterns, relationships, and trends over the study period. Additionally, the study incorporated a longitudinal approach, examining financial performance data from 2015 to 2024. This approach provided insight into how operational risks evolve over time and their impact on financial performance.

Population of the Study

58 insurance companies licensed by the Insurance Regulatory Authority and operating in Kenya from 2015 to 2024 were included in the target audience. The list of the 58 insurance firms that are licensed by the Insurance Regulatory Authority (IRA) in Kenya as of 2024 make up the sampling frame.

Census Technique

Information from all the insurance firms that are licensed by the Insurance Regulatory Authority (IRA) was gathered for this study using a census technique. Additionally, by avoiding sample bias, this method ensures that the results are representative of the total population.

Data Collection Instruments

A secondary data collection sheet was used to gather the secondary data for this investigation. Financial statements, annual reports, and relevant economic reviews of companies licensed by the Insurance Regulatory Authority (IRA) shall serve as the sources of the data.

Data Analysis

The first steps in data processing were cleaning and validation, during which errors, missing numbers, and inconsistencies were to be found and fixed. After cleaning, the data were normalized and grouped for effective analysis. To enhance accuracy and clarity, SPSS was used for statistical computations, data visualization, and trend analysis. Both descriptive and inferential statistical techniques will be used in the analysis. Descriptive statistics involved use of mean, frequency, variance percentage and standard deviation. Inferential statistics include panel regression and product moment correlation was used. The following regression model was applied:

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \epsilon_{it} \dots \dots \dots \text{equation 1 Where;}$$

- Y_{it} = Financial Performance of insurance company i at time t (measured by ROE)
- X_{it} = Operational Risk
- B_0 = Constant term(intercept)
- B_1 , = Coefficients of the independent variable
- ϵ = Error term
- i is the insurance company under observation with $i = 1 \dots 58$
- t is the time, with $t = 2015 \dots 2024$

FINDINGS AND DISCUSSION

Descriptive Statistics

Descriptive statistics were used to summarize the regression panel data and identify underlying patterns.

Table 1: Descriptive Statistics Results

Variable	Min	Max	Mean	Std. Dev	Skewness	Kurtosis
Operational	0.0713	0.4876	0.2246	0.0798	0.7654	2.8741
ROE	-0.1024	0.2617	0.0694	0.0651	-0.4872	2.6895
N = 380						

A minimum operational risk of 0.0713 (7.13%) indicates that some insurers operate with highly efficient cost structures. Conversely, the maximum of 0.4876 (48.76%) reflects firms with significantly high operating expenses relative to premiums, potentially reducing underwriting profitability. The mean of 0.2246 (22.46%) indicates moderate operational cost intensity across the sector. The standard deviation of 0.0798 suggests noticeable variation in cost efficiency among insurers. The skewness of 0.7654 indicates a right-tailed distribution, implying that a few firms experience disproportionately high operational costs. The kurtosis of 2.8741 suggests moderate peakedness with limited extreme deviations. These findings align with IRA Kenya industry reports (2021) and Wambua & Ouma (2019), who documented inefficiencies and cost disparities among Kenyan insurers driven by administrative overheads and scale differences.

Trend Analysis

Operational risk trends over a ten-year period were examined to determine how insurers control their exposure via risk transfer methods. The results are shown in Figure 2.

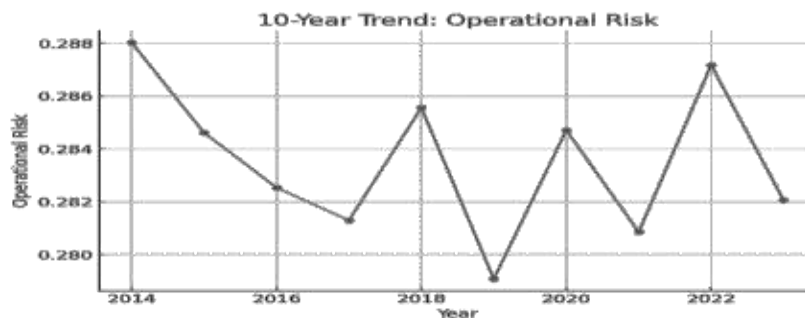


Figure 2: Trend Analysis for Operational Risk

Operational risk rose sharply in 2014, owing primarily to entrenched cost structures, limited digitization, and reliance on conventional administrative approaches. By 2016, a significant drop indicated sector-wide attempts to improve efficiency, most likely driven by early regulatory reforms and the implementation of leaner operating frameworks. The resurgence in 2018 was attributed to renewed cost constraints caused by growth initiatives, compliance upgrades and inflationary adjustments. A second dip occurred from 2020 to 2021, coinciding with the pandemic, as businesses established remote operations and reduced spending to maintain profitability. The final high in 2022 was the result of post-pandemic restructuring and reinvestment in digital infrastructure, followed by a slight correction in 2023 as enterprises adjusted their cost plans. Overall, the pattern reveals a sector that is both responsive and flexible, with operational risk molded by a complex interaction of strategic decisions and external disruptions.

Model Specification

To determine the most appropriate panel data estimation technique, model specification tests were conducted before estimating the regression model.

Breusch–Pagan LM Test

To ensure the regression model's reliability, the Breusch–Pagan LM test was conducted to check for heteroskedasticity in the residuals.

Table 2: Breusch–Pagan LM Test Result

Model	Chi-Square Statistic	p-value	Interpretation
ROE Regression Model	12.47	0.014	Heteroskedasticity detected

As displayed in Table 2, the calculated Chi-Square statistic was 12.47 with a p-value of 0.014. Since the p-value is less than 0.05, the null hypothesis of homoskedasticity is rejected. This finding indicates that the residuals exhibit heteroskedasticity. Consequently, robust standard errors were applied in the regression analysis to ensure valid inference.

Hausman Test

The Hausman test was performed to determine whether the Fixed Effects (FE) or Random Effects (RE) model was more appropriate for the panel data analysis. The test evaluates whether individual-specific effects are correlated with the regressors.

Table 3: Hausman Test Result

Model Comparison	Chi-Square Statistic	p-value	Preferred Model
FE vs RE	18.62	0.001	Fixed Effects

As shown in Table 3, the Hausman test produced a Chi-Square statistic of 18.62 with a p-value of 0.001. Since the p-value is below 0.05, the null hypothesis that the Random Effects model is consistent is rejected. This result implies that the Fixed Effects model is more suitable, as insurer-specific characteristics are correlated with the explanatory variables. Therefore, the study adopted the Fixed Effects model for subsequent analysis.

Inferential statics.

This section uses inferential statistical analysis to determine the relationship between operational risk and financial performance of insurance companies in Kenya.

Correlation Analysis

Pearson correlation analysis was performed to examine the direction and strength of the linear relationships between reinsurance risk and financial performance (ROE). The results are presented in Table 4.

Table 4: Correlation Matrix

	ROE	Operational Risk
ROE	1	
Sig. (2-tailed)	—	
N	380	
Operational Risk	-.356	1
Sig. (2-tailed)	.009	—
N	380	380

Operational Risk had a correlation coefficient of -0.356 and a p-value of 0.009, both less than 0.01, showing a moderate and statistically significant negative relationship with financial performance. This shows that increased operational risk, caused by inefficiencies, systems breakdowns or internal processes flaws relates to a lower return on equity. It suggests that poor operational controls reduce corporate profitability.

Analysis of Variance (ANOVA)

To evaluate the regression model's explanatory power, the ANOVA result from the panel regression was assessed. Table 5 presents the results.

Table 5: ANOVA Fixed Effects Regression

Source	Sum of Squares	Df	Mean Square	F	Sig.(p-value)
Regression	3.404	1	3.404	36.998	0.000
Residual	34.766	378	0.092		
Total	38.170	379			

Table 5 presents the Analysis of Variance (ANOVA) results for the regression model

examining the effect of reinsurance risk on the financial performance of insurance firms in Kenya, measured using Return on Equity (ROE). The model is statistically significant, as indicated by an F-statistic of 36.998 and a corresponding p-value of 0.000, which is less than the 0.05 significance level. This indicates that the regression model provides a significantly better fit than a model without the predictor variable.

The findings imply that reinsurance risk significantly explains variations in the Return on Equity of insurance firms. Consequently, the null hypothesis that reinsurance risk has no significant effect on financial performance is rejected. The results therefore demonstrate that reinsurance risk is a significant predictor of the financial performance of insurance firms in Kenya.

Regression Analysis

Panel regression analysis was used in evaluating the effect of operational risk on financial performance. The results are reported in Table 6.

Table 6: Regression Results for Operational Risk and ROE

ROE-Operational	Coef.	St. Err.	T-value	P-value
Operational Risk	-0.297	0.081	-3.667	0.000
Constant	0.128	0.024	5.333	0.000
R-squared			0.189	
F-test			13.447	
Prob > F			0.000	
Number of observations			380	

The findings show a negative, statistically significant relationship between operational risk and ROE. A value of -0.297 indicates that a one-unit increase in operational risk results in a 29.7% fall in ROE. The p-value of 0.000 indicates great statistical significance, allowing us to reject the null hypothesis. The R-squared value of 0.189 suggests that operational risk explains 18.9% of the variation in ROE. This shows that inefficiencies and internal process breakdowns have a considerable negative impact on corporate profitability.

Based on the regression results, the estimated model is:

$$Y_{it} = 0.128 - 0.297X_{it} \dots\dots\dots \text{Equation 2}$$

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The objective was to determine the effect of operational risk on the financial performance of insurance companies in Kenya. The results indicated a negative and significant relationship between operational risk and ROE. This suggests that inefficiencies arising from internal processes, system failures, fraud or human errors adversely affected insurer profitability. Increased operational costs and losses associated with operational failures reduced overall financial performance.

Conclusion

Based on the findings, the study concludes that operational risks significantly influence the financial performance of insurance companies in Kenya.

Recommendations

The study found that operational risk significantly and negatively affects financial performance. In order to lower errors and inefficiencies, it is advised that insurance companies invest in strong internal control systems and automate important procedures. To increase competency and lower human-related risks, businesses should also give staff training and capacity building top priority. Adopting contemporary IT solutions is necessary to enhance operational dependability, fraud detection, and data management. To quickly identify and reduce operational risks, real-time monitoring tools and routine internal audits should be put in place.

Suggested Areas for Further Research

Future studies may explore the effect of macroeconomic factors such as inflation, interest rates, and exchange rate fluctuations on the financial performance of insurance companies in Kenya. Further research could also incorporate qualitative factors such as corporate governance, managerial competence, and technological innovation to provide deeper insights into insurer performance. Additionally, comparative studies between life and general insurance companies could enhance understanding of risk dynamics across different insurance segments.

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