

Effect of Management Soundness on the Financial Performance of Insurance Companies in Kenya

Rachael W. Gitonga^{1*}, Elizabeth Kalunda¹, Francis W. Wambalaba¹

^{1,1,1}United States International University – Africa

ekalunda@usiu.ac.ke¹

fwambalaba@usiu.ac.ke¹

*Correspondence Email: rgitonga@zep-re.com¹

Cite: Gitonga, R.W., & Kalunda, E.M. & Wambalaba, F.W. (2024). Effect of Management Soundness on the Financial Performance of Insurance Companies in Kenya. *African, Journal of Business & Development Studies*,1(1), 156–167. <https://doi.org/10.70641/ajbds.v1i1.68>

Abstract

The purpose of the study was to assess the effect of management soundness on the profitability of insurance companies in Kenya. The study was anchored on the CAMELS model that was advanced by the International Monetary Fund for insurance companies in sub-Saharan Africa. This study used a positivism philosophy, and a descriptive research design and targeted a total of 56 insurance companies. The study used secondary data for 15 years from 2008 to 2022 drawn from the company's financial statements and the Insurance Regulatory Authority industry publications. The gathered quantitative data was analyzed by use of descriptive statistics (percentages, frequencies, mean and standard deviation), and a balanced dynamic panel data regression model. Before conducting the panel regression analysis, diagnostic tests to assess stationarity, linearity test, serial correlation, normality of residuals, and homoscedasticity tests were done. The study included 41 insurance companies that satisfied the inclusion criterion. The research findings determined that management soundness had a significant positive effect on the financial performance of insurance companies in Kenya ($\beta = 0.2128$, $t = 2.95$, $p = 0.001$). The research concluded that management soundness was instrumental in the financial performance of insurance companies in Kenya. The study findings have implications for management and policymakers to nurture a culture of competence and ethical leadership in insurance companies.

Key Words: Financial Performance, Insurance Companies, Kenya, Management Soundness.

Introduction

Globally, the insurance industry's performance has remained weak. The coronavirus disease in 2019 (COVID-19) pandemic triggered a global economic downturn which worsened an already existing performance pressure on the industry. Pre-2020, the insurance industry was already facing performance challenges (McKinsey, 2022). Over the past 20 years, insurance premiums

generated have grown at a lower rate than the gross domestic product (GDP) growth in economies globally. In the United States (US) and Europe, the nominal GDP grew at a compound annual growth rate (CAGR) of 4%, a higher rate than the premiums CAGR of only 2%. Similarly, Asian economies excluding Japan grew at a CAGR of 10%, while premiums generated grew at a CAGR of just 3%. Insurers have not kept pace with the growth of the economies in which they operate (Boston Consulting Group, 2023).

The insurance industry in Kenya has faced financial performance challenges as its global counterparts. According to the Insurance Regulatory Authority (IRA) industry report from January to December 2021, the combined underwriting result for the industry was an underwriting loss of KES 6.3 billion (IRA, 2023). This was a decline from the previous year 2020 which had equally registered a loss of KES 2.2 billion and year 2019 that had a loss of KES 3 billion. The net profit decreased to KES 15.12 billion in 2019 and further to KES 6.39 billion in 2020, a significant decline of 57.7% (IRA, 2022). During the period, the industry net profit increased significantly by 56.5% from KES 5.53 billion to KES 8.65 billion in 2021. As of 2021, Kenya's insurance penetration rate was at 2.24 percent. It has kept a descending tendency since 2016, when the indicator stood at 2.78 percent. In addition, 10 insurance companies were placed under statutory management on grounds of insolvency from 2010 to 2021 (IRA, 2021). The country's penetration rate is lower than similar developing African markets such as South Africa (13.7%) and Morocco (4.5%) (Kitaka et al., 2020).

The importance of the insurance industry in Kenya is underpinned by the vital role in providing financial resilience which is a key pillar for economic recovery. The Insurance Industry in Kenya is a key driver to the country's economic growth, contributing approximately 6.3% to GDP in 2022 (IR, 2022). The industry provides a means of wealth accumulation funding economic development projects and investing in capital markets. The insurance industry allows businesses to take up economic risks without the need for additional capital. Insurance is a risk management mechanism that supports the restoration of economic activities with limited financial losses (IRA, 2021). The industry contributes to the financial stability of economies by providing long-term financial resources (McKinsey, 2022). Insurance companies need to align their corporate strategies towards improved financial performance and maximization of value for a financially sound industry which in turn should meet the needs of key stakeholders (Siddik et al., 2022). Further, the global regulatory trends indicate that tougher regulation measures and increased pressure to improve performance can grow the sector's prospects and encourage investment.

To properly evaluate the financial soundness of a company both quantitative and qualitative assessments are required. The International Monetary Fund's (IMF) financial soundness indicators compilation guide provided a key performance indicator (KPI) reporting tool kit that was developed for insurance supervisors. This tool kit focused on prioritizing and applying the KPIs in a risk-based manner in the context of Sub-Saharan Africa to assess the risk and financial performance of insurers (IMF, 2004). The tool kit comprises financial indicators that form the acronym CARMELs, that is, Capital adequacy, Asset quality, Reinsurance, Actuarial liabilities, Management soundness, Earnings and business volumes, Liquidity and Subsidiaries, and related parties. The CARMELs model forms a criterion upon which the financial determinants that impact financial performance are identified for the study. This study focused on the effect of management soundness on profitability as this key aspect has been neglected by various studies such as Vigneswara (2020), Tsvetkova et al. (2021), and Siddik et al. (2022) which have mostly focused on financial aspects. Management soundness is the presence of fit and proper individuals, the implementation of sound corporate governance

practices, the effectiveness of risk management and controls, as well as an appropriate organizational structure and operational efficiency in an insurance company.

Statement of the Problem

The insurance industry is viewed as a value-destroying industry in which half the investors do not earn their cost of equity (Tsvetkova et al., 2021). This is a global industry-wide problem, with 54% of listed insurers attaining an ROE lower than the cost of equity over the past five years. This has raised a question of the industry's long-term economic viability, which requires an even greater urgency given the highly uncertain macroeconomic and geopolitical landscape (McKinsey, 2022). The global insurance industry's total shareholder return (TSR) in 2022 at a rate of 8% fell short of meeting investors' cost of equity, perpetuating a trend observed in recent years. This challenge was further highlighted by the industry's five-year annual TSR from 2018 through 2022, which stood at a disappointing 3.9%, significantly lower than the all-industry average of 6.6%. Furthermore, the global insurance industry's market capitalization remained stagnant at approximately \$2.2 trillion over the same period. This stagnation and underperformance present a significant industry problem that needs to be addressed to improve the profitability and growth of the insurance industry globally (Boston Consulting Group, 2023).

The IRA insurance industry report for the period January to March 2023 reconfirms the adverse financial performance trends that the industry has portrayed in the past. During the quarter, General insurance business underwriting results declined from a loss of KES 510.20 million in a similar quarter in 2022 to a loss of KES 2.01 billion in Q1 2023. Further, the report indicates a combined ratio of 106.7% against 101.9% same period in 2022 (IRA, 2023). This study is motivated by the adverse financial performance of Kenya's insurance industry which undermines its role in contributing towards the national economic agenda. Understanding the factors that impact its performance is paramount to supporting industry stakeholders take appropriate action. How well those charged with governance and management optimize these factors impacts the firm's financial performance. Despite the importance of the insurance industry, the interventions put in place by the IRA and the government have not enabled enhanced profitability in the sector. Besides, most previous studies on the profitability of insurance companies in Kenya such as Morara and Sibindi (2021), Kamau et al. (2021), and Kitaka et al. (2020) have focused on financial factors and neglected management soundness. This research focused on filling the above-identified gaps by carrying out a study to find out the influence of management soundness on the financial performance of insurance firms in Kenya.

Objective of the Study

The objective of this study was to evaluate the effect of Management Soundness on the Financial Performance of Insurance Companies in Kenya.

Literature Review

This section provides the theoretical, empirical, and conceptual framework that guided the study.

Theoretical Literature

The study was based on the CAMELS model developed by IMF (2004) to assess the insurance industry's financial soundness. The model was adapted from the CAMEL framework used for the evaluation of banking institutions. The difference between the two frameworks is that some of the indicators are different in construction and require different interpretations when used by insurance companies (Ali *et al.*, 2019). In addition, the CAMELS framework has two additional insurance industry-specific indicators; reinsurance and actuarial issues. The CAMELS framework classifies the KPIs according to the risks faced by insurers. The CAMELS model groups the indicators into four broad areas that include financial soundness, governance, risk management and operations, financial performance and management, and group issues. The study will focus on the “M” indicator in the model that stands for management soundness (Ghauri *et al.*, 2019). Sound management is the most important prerequisite for the strength and growth of any financial institution (Tsvekova *et al.*, 2021). This indicator evaluates an institution's capacity to effectively respond to financial strains and governance. This is the management's capacity to identify, assess, mitigate, and oversee risks in the institution's day-to-day operations (Muthusamy *et al.*, 2023). It encompasses management's capacity to guarantee the secure functioning of the institution while adhering to the required internal and external rules.

Empirical Literature

Abebe *et al.* (2022) conducted a study using panel data from nine insurance companies in Ethiopia, spanning from 2012 to 2020. The study aimed to examine the effect of corporate governance on the financial performance of these companies, as measured by their return on assets and equity. To determine the most significant variables, the study employed a random effect estimation technique, analyzing factors such as board size, management soundness, board remuneration, financial disclosure, debt, and dividend policy. The study found that board size, management soundness, board remuneration, and financial disclosure had a positive and significant effect on the financial performance of insurance companies. In contrast, debt and dividend payout were found to have a negative and significant impact. The study concluded that all corporate governance measures significantly impacted the financial performance of insurance companies in Ethiopia.

Kirimi *et al.* (2022) conducted a study to investigate the impact of financial soundness on the financial performance of commercial banks in Kenya. The study used a dynamic panel model to analyze data from 2009 to 2020 and employed the CAMEL approach, using five CAMEL variables as financial soundness indicators. The results showed that financial soundness had a significant effect on net interest margin (NIM), return on assets (ROA), and return on equity (ROE). Additionally, asset quality and earning quality had a significant effect on NIM, while management efficiency had a significant effect on ROE. The practical implications of these findings are that bank managers should implement effective financial policies to govern changes in CAMEL variables to ensure optimal financial soundness and facilitate positive growth in banks' financial performance. The study contributes to local literature by examining banks in a developing economy and providing reliable and relevant information on their differences, allowing for monitoring their dynamics in financial soundness and financial performance. This information could not be provided by regional or global studies.

Bashatweh and Ahmed (2020) conducted a study analyzing and evaluating the financial performance of 13 commercial banks in Jordan from 2014 to 2018. The study used the

CAMELS framework, which consists of six components: capital adequacy, asset quality, management quality, earnings, liquidity, and sensitivity to market risk. The study concluded that the overall classification of Jordanian commercial banks based on the CAMELS framework was acceptable and that there was a convergence in the rating, indicating a convergence of procedures and policies adopted in Jordanian commercial banks. The study recommended that banks reduce their operating expenses and manage them better. Management efficiency, although it is often expressed qualitatively, can be measured using financial ratios as a proxy for factors such as efficient use of resources, income maximization, and reduced operating costs.

Arora and Bodhanwala (2018) conducted a study examining the relationship between the corporate governance index (CGI) and firm performance in India. The study used a sample of 100 companies listed on the Bombay Stock Exchange (BSE) from 2009-2015 and constructed a CGI based on 25 parameters related to board structure, ownership structure, audit committee, and disclosure practices. Panel data regression models were employed to test the impact of CGI on various performance measures such as return on assets (ROA), return on equity (ROE), earnings per share (EPS), and market capitalization. The results of the study showed that CGI had a positive and significant effect on ROA, ROE, and EPS, but not on market capitalization. The study also found that board size, board independence, board diversity, institutional ownership, and audit quality were the most important determinants of CGI. The study concluded that corporate governance practices play a significant role in enhancing firm performance and creating value for shareholders in India.

Conceptual Framework

The research is underpinned by a conceptual framework, shown in Figure 1, which depicts the predicted influence of management soundness on profitability.

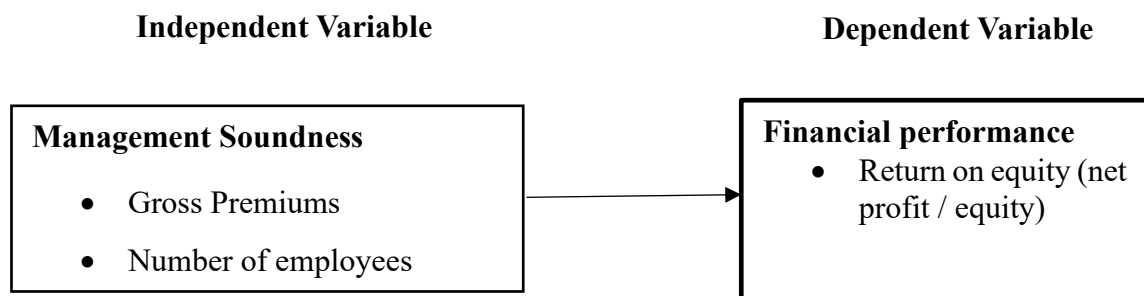


Figure 1: Conceptual Framework

Management soundness was measured by dividing gross premiums by the number of employees in the organization. This showed the efficiency of the insurance companies; and employees to generate premiums (Muthusamy et al., 2023). Profitability, on the other hand, was measured using return on equity (ROE), which is a result of dividing the net profit of the insurance company by the shareholder's equity (Morara & Sibindi, 2021). This shows the capacity of the insurance company to generate returns for its shareholders. This conceptual framework led to the following null hypothesis;

H₀: Management soundness has no significant effect on the financial performance of insurance companies in Kenya.

Research Methodology

This research used a positivist mindset to collect data on the robustness of management and assess its impact on the financial performance of insurance businesses. This study used a descriptive research approach and conducted a correlational analysis on the variables. The research included all 56 insurance businesses in Kenya, both listed and unlisted, that were officially registered with the Insurance Regulatory Authority (IRA) and had been operational from 2008 to 2022 (IRA, 2022). The research inclusion criteria was limited to insurance businesses that have maintained continuous operations for a minimum of 15 years. As a result, 41 insurance firms were included. The research collected secondary data from the audited yearly financial statements of the insurance firms and IRA annual reports. The researcher performed panel regression analysis on the secondary dynamic panel data that was collected. The panel was well-balanced since it consisted of 41 enterprises that have functioned continuously from 2008 to 2022.

Study Results and Discussion

General Information

The study gathered secondary data for management soundness and financial performance from 56 insurance companies in Kenya for a period of 15 years (2008 – 2022). Of the 56 insurance companies that were considered in the study, 41 satisfied the inclusion criteria as they were operational for 15 years and this resulted in 615 observations.

Descriptive Analysis of Management Soundness and Financial Performance

This section covers the descriptive analysis of the secondary data gathered in the study regarding management soundness and financial performance. The descriptive analysis for the panel data gathered includes means, standard deviations, maxima, and minima. The measurement of management soundness involved the computation of a ratio between gross premium and the number of employees in an insurance company in a given year. Table 1 provides the summary statistics.

Table 1
Summary Statistics for Management Soundness

Variable		Mean	Std. Dev.	Min	Max	Observations
Management Soundness	Overall	42,951	14, 616	15,672	97,009	N = 615
	Between		11,639	27,871	62,341	n = 41
	Within		12,333	31,833	55, 086	T = 15

The mean of the management soundness, according to the study results compiled in Table 1 was 42,511 million shillings, so reflecting the average gross premium per employee. While the standard deviation within the 15 years was 12,333, the standard deviation for the whole ratio was 14, 616 between the 41 insurance companies. The high within-group standard deviation indicated that the variability within the 15 years contributed more to the variability in management soundness though there were also variations between insurance companies. Apart from that, the highest was 97,009 and the minimum overall ratio was 15,656. Between insurance firms, the minimum value was 27,871 and the greatest was 62,341. Within the 15 years, the smallest value was 31,883 and the greatest was 55, 086. This shows that some firms experienced high levels of management soundness with others showing low management

soundness. Insurance performance depends on management soundness, which was calculated as a percentage between gross premium and staff count. Over the 15 years, the managerial soundness of Kenyan insurance businesses was 42,511 in thousands, meaning that every staff member generated KES 42,951,000 per year. This points to competent management in the insurance industry.

Financial performance was the dependent variable in the study and it was measured using ROE. The ROE was computed as the profit before tax divided by the average of shareholder funds for the year. Table 2 provides the descriptive study findings.

Table 2

Descriptive Analysis of Financial Performance

Variable		Mean	Std. Dev.	Min	Max	Observations
ROE	Overall	.0785	0.1182	-0.4727	0.3978	N = 615
	Between		0.0977	0.0246	0.2257	n = 41
	Within		0.0656	0.0525	0.1015	T = 15

The findings in Table 2 reveal both average profitability across all firms and periods, as well as variations in ROE between different firms and within each firm over time. Overall, the average firm has a ROE of 0.0785, indicating an average profitability across all firms and periods. There is also some variability in ROE performance, with a standard deviation of 0.1182. The minimum ROE of -0.4727 suggests that some firms experienced significant losses, while the maximum ROE of 0.3978 indicates that others achieved substantial profitability.

The 'Between' statistics summarize the average ROE across different firms (41 in total). The higher mean ROE of 0.0977 compared to the overall mean suggests that some firms have consistently stronger profitability over time. There is also less variation in ROE between firms (standard deviation of 0.0246) compared to the overall variation across all observations. The 'Within' statistics focus on the variation in ROE within each firm over the 15 time periods. The mean ROE of 0.0656 within firms suggests an average level of profitability within each firm over time. The standard deviation of 0.0525 reflects the degree to which ROE fluctuates within each firm over the observed periods.

Diagnostic Tests for Panel Data Regression

The study applied panel regression analysis and this necessitated the diagnostic tests that included the stationarity test, linearity test, serial correlation test, the test of normality of residuals, homoscedasticity tests and Hausman test. The research used the Augmented Dickey-Fuller (ADF) test to assess stationarity. The ADF test results for management soundness showed that the absolute value of the test statistic (-3.172) was above the absolute 5% critical value (2.908). Furthermore, the findings indicate that the Mackinnon approximation Z (t) p-value ($p = 0.0216$) was below the 5% threshold of significance. This indicates that the data series for management soundness was stationary. Further findings showed that the absolute values for ROE (4.613) exceeded the absolute 5% critical value (2.908). Furthermore, the research findings indicate that the Mackinnon approximation Z (t) p-value ($p < 0.05$) for ROE was below the 5% threshold of significance. This indicates that the series for these variables were similarly stationary and thus, they could be fitted in a panel linear regression analysis without the need for any differencing.

Test of linearity was undertaken using the analysis of variance (ANOVA) deviation from linearity test to assess the assumption of linearity between management soundness and financial performance. The findings indicated that management soundness was linearly related

to ROE ($F = 1.721$, $p = 0.263$). The test for serial correlation was also undertaken using the Wooldridge test for autocorrelation in panel data. The findings demonstrate the absence of autocorrelation ($F = 1.184$, $p = 0.1722$). The heteroscedasticity test was conducted using the modified Wald test for groupwise heteroscedasticity. The findings indicated homoscedasticity (chi-square = 1.985, $p = 0.2903$). This suggests that the variability of residuals was consistent for all the predicted values of ROE. Moreover, the research conducted a test to assess the normal distribution of the regression residuals, and the Shapiro-Wilk test was used for this test. The findings indicated that the Shapiro-Wilk test did not provide significant results, since the p-value was higher than 0.05 ($z = 0.547$, $p = 0.2417$). These findings indicate that the regression residuals followed a normal distribution.

Following the completion of the diagnostic tests, a Hausman test was performed to ascertain if random effects or fixed effects panel data models were the most suitable representation of the data for the study. The Hausman test identifies endogenous predictor variables, which are variables that are influenced by other components in the regression model. These factors may be used to enhance the precision of forecasts. The study results indicate that the null hypothesis, which states that the difference in coefficients is not systematic, was rejected based on the statistical analysis (Chi-square = 146.53, $p < 0.05$). This supported the deduction that the fixed effects model was a suitable fit for the empirical data. The fixed effects model allows for the adjustment of unit-specific properties that are not apparent across time. This model assumes that there is a relationship between these qualities and the predictor variables it uses.

Fixed Effects Model

This section presents the findings of the fixed effects model that was fitted to test the effect of management soundness on the financial performance of insurance companies. A total of 615 data points were used over 15 years (2008 to 2022) from the 41 insurance companies in Kenya that met the inclusion criteria. The research used standard errors in the process of fitting the model, and the outcomes of the fixed effects model are shown in Table 3.

Table 3

Fixed Effects Model for Management Soundness on Return on Equity

Fixed-effects (within) regression			Number of obs	=	615
Group variable: Insurance Company			Number of groups	=	41
R-sq			Obs per group		
Within	=	0.6512	min	=	15
Between	=	0.6083	avg	=	15.0
Overall	=	0.3379	max	=	15
			F (1, 614)	=	13.27
Corr (u_i, Xb) = 0.5618			Prob > F = 0.0000		
ROE	Coef.	Std. Err.	t	P > t	[95% conf. Interval]
Management Soundness	.2128	.0722	2.95	0.001	.0583 .2981
_Cons	.1811	.1304	1.39	0.216	-.0411 .3156
	sigma_u	.2163			
	sigma_e	.1972			
	rho	.3714	(fraction of variance due to u_i)		
F test that all u_i = 0:	F = 12.71		Prob > F = 0.0000		

The findings shown in Table 3 indicate that the model had a good fit, and management soundness exerted a significant influence on the ROE ($F = 13.27$, $p < 0.05$). This indicates that the model can forecast financial performance (ROE) based on a firm's management soundness. The coefficient of determination within the 15 years (r squared within) of 0.6502 shows that the fixed effects model accounted for 65.12% of the variation in the ROE of the insurance companies across the 15-year research period. In addition, the coefficient of determination between (r squared between) of 0.6083 indicates that the fixed effects model accurately accounted for 60.83% of the variability in the financial performance (ROE) among different insurance companies. Further, the coefficient of determination overall (R -squared overall) of 0.3379 suggests that if the pooled ordinary least squares regression model had been used, it would have been able to account for just 33.79% of the variation in the financial performance of the insurance companies over the 15-year study period. This highlights the suitability of using the fixed effects model in the study. The correlation between the errors with the regressors in the fixed effects model [$\text{Corr}(u_i, Xb) = 0.5618$] shows that the errors had a significant correlation with the regressors. Besides, the findings of the intraclass correlation ($\rho = 0.3714$) show that 37.14% of the differences in ROE were due to the differences across panels.

Table 3 further provides results that portray that management soundness has a significant positive effect on the financial performance (ROE) of insurance companies in Kenya ($\beta = 0.2128$, $t = 2.95$, $p = 0.001$). These findings depict that any change in management soundness which was measured in terms of gross premiums per employee, would lead to a significant change in the financial performance of the insurance company. The results moreover imply that a 1% change in management soundness of an insurance company is expected to lead to a

change of 0.21% in the financial performance of the insurance company. Therefore, a 1% improvement in management soundness would lead to a 0.21% increase in ROE and vice versa. These study findings were used to test the null hypothesis of the study, which was;

Ho: Management soundness has no statistically significant influence on the financial performance of insurance companies in Kenya.

The results of the study led to the rejection of the null hypothesis and the deduction that Management soundness has a positive and statistically significant influence on the financial performance of insurance companies in Kenya.

Discussion of Results

The research results indicate that management soundness has a strong positive impact on the financial performance of insurance firms in Kenya. These findings relate to the findings by Nadir et al. (2019) in a case study on the non-life insurance industry in Pakistan. The study was carried out to examine the effect of firm-specific factors on their financial soundness using the CAMEL Framework. The study determined that the management competence index had a significant effect on financial performance which is similar to the findings in the current study. The findings from the study also support the findings by Abebe et al. (2022) who conducted a study using panel data from nine insurance companies in Ethiopia, spanning from 2012 to 2020. The study aimed to examine the effect of management soundness on financial performance and determined that it had a positive and significant effect on the financial performance of insurance companies. The study findings are supported by the results from the current study which underlines the importance of management soundness towards a firm's profitability in various contexts and industries.

The study results that management soundness positively influences profitability similarly support the findings by Kirimi et al. (2022) who conducted a study to investigate the impact of management soundness on the financial performance of commercial banks in Kenya. The results showed that management soundness had a significant effect on net interest margin (NIM), return on assets (ROA), and return on equity (ROE). These findings are supported by the findings from the current study and therefore, the practical implications of these findings are that bank managers should implement effective management policies to govern changes concerning the CAMELS variables to ensure optimal management soundness and facilitate positive growth in the financial performance of their companies. This study's findings that management soundness was positively associated with profitability support the findings by Bashatweh and Ahmed (2020) who conducted a study analyzing and evaluating the financial performance of 13 commercial banks in Jordan from 2014 to 2018. The study measured management efficiency qualitatively through the use of financial ratios as a proxy for factors such as efficient use of resources, income maximization, and reduced operating costs. The study findings determined that management efficiency was instrumental in the performance of Jordanian commercial banks.

Conclusions and Recommendation

Results of this study reveal that management soundness has a significant positive effect on the financial performance of insurance companies in Kenya. The convergence of the study findings with the reviewed literature in the study led to the rejection of the null hypothesis and the study, therefore concluded that there is a significant positive relationship between management soundness and the financial performance of insurance companies in Kenya.

The study recommends that management in insurance companies weed out weak and ineffective management practices that can lead to financial instability and negatively impact the profitability of their insurance companies. Management in insurance companies should also nurture a culture of competence and ethical leadership in their firms. Besides, policymakers such as IRA should continually provide regulatory oversight and governance standards related to management practices to ensure the profitability and stability of insurance companies in Kenya.

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