
**MANAGEMENT EFFICIENCY AND FINANCIAL STABILITY OF INSURANCE FIRMS LISTED
AT THE NAIROBI SECURITIES EXCHANGE, KENYA**

¹Harrison Kisanya, ²Kimani E. Maina & ³Bosire, J.,

¹Msc Finance Student, School of Business and Entrepreneurship, Jomo Kenyatta University of Agriculture and Technology, Kenya

²Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

³Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

Accepted: June 3, 2026

ABSTRACT

The insurance industry plays a crucial role in fostering the ongoing growth and prosperity of the economy. The insurance sector is accountable for ensuring the ongoing survival of businesses, mitigating the risk associated with financial losses, and striving to eliminate uncertainty for investors. Despite their importance, recent statistics indicate that these firms have been having trouble maintaining their financial stability. Limited research exists on how management efficiency affects the financial stability of these firms. This study addressed this gap by analyzing the effect of management efficiency and the financial stability of insurance firms listed at the NSE, Kenya. The study was guided by the Resource-Based View Theory. A descriptive research design was adopted, with a target population of 6 insurance firms listed at the NSE, Kenya, as of December 2024, and the study was conducted through a census approach. Secondary panel data for the years between 2015 and 2024 were utilized to collect financial information from the insurance firms' records, IRAs, and NSEs. Data was gathered from secondary sources with the aid of a secondary data collection sheet and analyzed using descriptive and inferential statistics. The descriptive statistical tools included frequencies, percentages, means, variances, and standard deviations. Inferential statistical tools included Pearson's Product-Moment correlation and panel regression analysis. The results of the model summary indicated an R^2 of 0.6106, implying that 61.06% of the variation in the financial stability of insurance firms listed at the NSE is explained by management efficiency. The regression results revealed that management efficiency exhibited a positive and significant effect ($\beta = 0.3375$, $p = 0.0006$), implying that higher operating costs increase leverage and weaken financial stability. Based on these findings, the study recommends that insurance firms should enhance operational efficiency. Regulators should also reinforce risk-based supervision and prudential guidelines to enhance the resilience and stability of the insurance sector in Kenya.

Keywords: Management Efficiency, Financial Stability, Insurance Firms Listed at the Nairobi Securities Exchange, Kenya

CITATION: Kisanya, H., Kimani E. M & Bosire, J. (2026). Management efficiency and financial stability of insurance firms listed at the Nairobi Securities Exchange, Kenya. *Reviewed Journal International of Financial Management*, 7 (1), 71 – 83.

BACKGROUND OF THE STUDY

A company's degree of financial stability is one of the most important components of its overall financial health (Kraus et al., 2020). Abdelbadie and Salama (2019) define the financial stability of firms as the ability to maintain a secure and sustainable financial position over time. Financial stability entails the ability to fulfill financial commitments without running the risk of going bankrupt, including paying debts, claims, and operating costs. In the face of adverse events or fluctuations in the market, a financially sound business typically exhibits resilience and low vulnerability to economic shocks (Dafermos, Batiston, & Monasterolo, 2021). Slatince (2021) defines management efficiency as the extent to which an organization's board of directors and leadership can assess and reduce operational risks to maintain the company's viability from a moral, legal, and financial standpoint.

Good management is a feature that is specific to each bank since it is crucial for performance but difficult to measure (Naili 2025). In listed insurance firms, efficient management is critical due to thin underwriting margins and high operating costs. Inefficient claims handling, excessive administrative expenses, or poor investment decisions can quickly erode profitability. Hassan, Khan, and Paltrinieri (2022) demonstrate that management efficiency significantly enhances underwriting profitability and reduces expense ratios. Importantly, management efficiency reflects operational capability, not financial performance itself, making it a valid explanatory variable in performance models. The stability of the insurance industry is necessary to preserve public confidence, which is a key element in its healthy operation and expansion (Haiss & Umi, 2018). By fostering investment, entrepreneurship, and trade facilitation, a healthy insurance industry supports economic growth (Outreville, 2023). A thorough analysis of management efficiency is therefore essential for assessing the financial stability of listed insurance firms' financial health and stability.

Statement of the Problem

A financially stable insurance sector is essential for reducing risks and enabling Kenya to achieve its economic goals as outlined in Vision 2030 (IRA, 2024). According to the Global Federation of Insurance Associations (2020), Cytonn (2022), and IRA (2022), an ideal D/E ratio for insurance firms is 1.0%, reflecting a solid financial foundation characterized by greater equity relative to debt. Ratios between 1.0% and 1.5% are considered acceptable, while values of 2.0% and above indicate elevated financial risk and potential insolvency. However, insurance firms listed on the NSE have been experiencing declining performance in the last ten years. An analysis of the performance trend shows a decline of 1.9% and 1.5% in 2015 and 2016, respectively, down from 2.8% in 2014 (NSE, 2016; IRA, 2017). In 2017, the ratio worsened to 2.5% and improved to 1.56% in 2018 (NSE, 2019). The years 2019 through 2021 witnessed a worsened D/E ratio rising to 2.3%, 2.0%, and 3.2%, respectively (IRA, 2022). Although 2022 and 2023 showed signs of recovery with ratios of 1.95% and 1.57%, the figure sharply rose to 3.19% in 2024, indicating renewed financial instability (NSE, 2025; IRA, 2025). Many studies have examined the relationship between financial stability and management efficiency. Isanzu (2017), King'ori et al. (2017), Shahzad et al. (2018), and Al Zaidabin (2020) illustrated that sound management enhances operational efficiency and earnings. Despite these contributions, gaps remain in the existing literature. Studies, including those by Isanzu (2017) and Ekinci and Poyraz (2019), were conducted in foreign contexts, potentially limiting their relevance to Kenya's specific financial landscape. Additionally, prior research broadly focused on the banking sector, neglecting insurance firms as a key financial sector. Lipunga (2016) analyzed tier-I commercial banks, and Obamuyi (2017) focused on Nigerian banks. In Kenya, Ngui and Jagongo (2017) assessed DT SACCOs, and Ongore and Kusa (2017) investigated all commercial banks. Given the lack of consensus and contextual limitations in existing studies, the study aimed to fill that gap by evaluating the impact of management efficiency on financial stability within insurance firms in Kenya.

Objective of the Study

The objective of this study was to establish the effect of management efficiency on the financial stability of

insurance firms listed at the Nairobi Securities Exchange, Kenya

Theoretical Review

This section comprises of the theory underpinning the study.

Resource-Based View Theory

Resource-based view theory was proposed by Barney in 1991. The theory explains how an entity can gain a competitive edge over its rival in the market by analyzing and interpreting its resources. The theory's central tenet is that corporate resources have superior performance and a competitive advantage over rivals, making them hard to replicate (Barney 1986; Hamel and Prahalad, 1996). According to the theory, resources are probably unique to the organization, need a significant and costly change in organizational culture, and cannot be economically redeployed or acquired. According to Conner (1991), corporations' variation in performance is mostly caused by their existence of distinctive characteristics. Lippmann and Rummelt (2003) believed that sustained competitive advantage stems from the rich links between the uniqueness of resources and causal ambiguity.

Andrews (1971) highlighted the internal management of the firm's input resources. Dierckx and Cool (1989) and Rummelt (1987) focused on imitability hurdles, such as causal ambiguity and isolation mechanisms like asset interconnectivity and asset stock efficiencies that make it hard for rivals to imitate. According to Peteraf's (1993) contribution to the theory, corporations attain superior performance by exploiting and profiting from inefficient and scarce resources as well as from their market dominance in the product market. The RBV operates under several key assumptions, the first of which is resource heterogeneity. Firms possess different bundles of resources, and these differences explain variations in performance and efficiency (Ristyawan 2023). Secondly, the theory assumes resource immobility, where some resources are not easily transferable or replicable by competitors (Barney 2021).

The theory presupposes that managers are capable of identifying, leveraging, and protecting strategic resources to achieve efficiency (Zhang 2021). Under these assumptions, management efficiency emerges when managers optimally deploy these strategic resources to enhance operational performance and minimize waste or redundancy. RBV remains a foundational strategic theory that underscores the significance of internal resource optimization in achieving superior firm performance. In the insurance industry, RBV translates into leveraging unique internal capabilities and resources to improve efficiency and performance. When managers in insurance firms skillfully coordinate these resources, the result is increased management efficiency demonstrated through lower expense ratios, faster service delivery, optimized claims settlement processes, and improved financial performance.

Empirical studies in Kenya support the RBV link to efficiency. For instance, Mutua and Gekara (2019), in their study on firm resources and performance of insurance firms in Kenya, found a statistically significant relationship between internal resource capabilities (staff training, IT systems, and innovation) and operational efficiency. Similarly, Mwangi and Murigu (2025) highlighted the impact of internal resource allocation on insurers' return on assets, confirming RBV's relevance to efficiency outcomes.

Despite its influence, the RBV is not without critique. According to Priem and Butler (2001), RBV theory is overly abstract and offers limited practical direction on how resources should be managed or developed. Oria (2021) argues that RBV tends to underplay the role of external environmental dynamics, regulatory forces, or market changes that also influence efficiency. Salazar (2017), on the other hand, asserts that RBV theory does not always clearly differentiate between resources and capabilities, making it difficult to apply uniformly. Similarly, Lubis (2022) criticizes the theory by trying to quantify what qualifies as valuable or rare, especially in service-oriented sectors like insurance. Nonetheless, RBV provides a compelling theoretical lens for analyzing how insurance firms achieve management efficiency through the strategic use of internal resources. The theory explained the effect of management efficiency on the financial stability of insurance firms in

Kenya.

Empirical Review

Muhtadin et al., (2022) studied the effect of management efficiency and profitability of state-owned listed banks in Indonesia. The study period was 7 years, from 2012 to 2018. The sample size was all state-owned commercial banks listed in Indonesia, and therefore, a census study was conducted. Profitability was measured using ROA, while the efficiency ratio proxy for management efficiency. The study utilized a descriptive research design and inferential analysis to establish the results of Pearson's correlation and panel regression. The study findings revealed that management efficiency exerts a negative effect on ROA, and conclude that higher efficiency ratios deteriorate ROA.

Ayadi and Naceur (2021) conducted a study on the effect of management efficiency in determining the financial sustainability of Microfinance institutions in Africa. Data were collected from MFIs in 29 African countries from 2005 to 2018. The study utilized a balanced panel dataset covering 95 MFIs in 29 African countries over the period 2005 to 2018. The period allowed for the examination of trends over different financial cycles, economic disruptions, and sectoral transformations. The empirical approach adopted was a two-stage efficiency analysis. Panel regression analysis was used to investigate the management determinants of efficiency scores. The findings conclude that management efficiency significantly affects the financial sustainability of MFIS in Africa and is therefore a key factor.

Barus, Muturi, and Kibati (2025) conducted a study to evaluate the effect of management efficiency on the financial performance of savings and credit societies in Kenya. An explanatory research design was utilized in the study. The 83 registered deposit-taking SACCOs in Kenya that have been operating for the past five years were the target population. The study's sample size consisted of all 83 SACCOs that had stayed open between 2011 and 2015. The study employed a census technique. Data was gathered from both primary and secondary sources. The statistical software packages for the social sciences (SPSS) and STATA were utilized to examine the data using multiple linear regression models. The data was analyzed using descriptive and inferential techniques. Tables and graphs were used to display the data. Based on the findings, the study concluded that management efficiency has no significant influence on the financial performance of savings and credit societies in Kenya.

Ndungu et al., (2020) conducted a study on the impact of managerial efficiency on the performance of public universities in Kenya. The study employed a descriptive research design combined with a correlational approach, aiming to determine the relationship between managerial efficiency and performance in public universities.

The study was cross-sectional but used retrospective data from university records covering five years (2015–2019). The study target population focused on all public universities in Kenya (approximately 31 at the time). Purposive sampling was used to select the five universities, utilizing both primary and secondary data. The study adopted a multiple linear regression model to examine the effect of managerial efficiency indicators on university performance. The study concluded that managerial efficiency is a strong predictor of institutional performance in public universities.

Conceptual Framework

The conceptual framework depicts the relationship between the independent variable and the dependent variable under study.

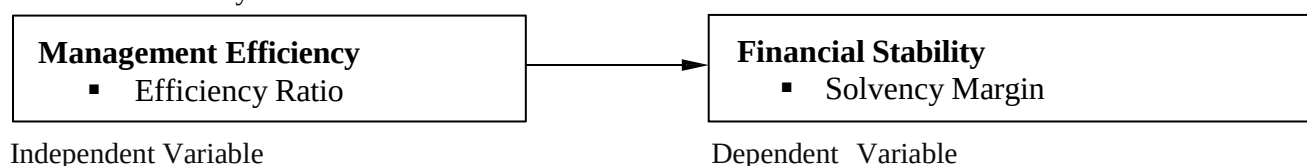


Figure 1. Conceptual Framework

METHODOLOGY

The section provided information on the research methods that will be adopted in carrying out the study.

Research Design

The study utilized a descriptive research design to examine the effects of management efficiency and the financial stability of insurance firms in Kenya.

Population of the Study

According to NSE 2025, there are six (6) insurance firms listed at the NSE, Kenya. The target population was therefore composed of six (6) insurance firms listed at the NSE, Kenya.

Census Study

A census study was employed due to the small size of the population. Mugenda (2003) asserts that every item in the population has an impact on the contribution in some way to reaching a favorable result.

Data Collection Instrument

Data was collected for a period of 10 years between 2015 and 2024. The researcher gathered secondary data sourced and compiled from financial statements using a secondary data collection sheet that captured all the necessary measures of the independent and dependent variables.

Data Processing and Analysis

The gathered data were processed, cleaned, coded, and calculated using STATA 18. A descriptive statistical analysis describes data in an understandable form, using frequencies, percentages, means, variance, standard deviations, skewness, and kurtosis, whereas inferential statistics, correlation, and panel regression were applied. The study employed a panel regression model. Panel regression model is a combination of cross-section and time series data in which the data, including time series and cross-sectional data, was pooled into a panel data set and estimated using a panel data regression (Baum, 2023).

The following panel regression equation was used;

$$Y_{it} = \beta_0 + \beta_1 ME_{it} + \varepsilon \dots\dots\dots \text{Equation 1}$$

FINDINGS AND DISCUSSIONS

This section focused on the descriptive statistics, trend analysis, correlation analysis, and regression analysis test results as set out in the research objectives.

Descriptive Statistics

This section presents the descriptive statistics of the study variables to provide a concise overview of their distribution, central tendency, and variability among insurance firms listed at the NSE for the period 2015–2024

Table 1: Descriptive Statistics

Statistics	Obs	Min	Max	Mean	SD	Skewness	Kurtosis
Financial Stability	60	1.2325	2.9954	1.9453	0.4940	0.4772	-0.7888
Management Efficiency	60	0.4016	0.6656	0.5182	0.0775	0.2831	-1.0683

In line with the dependent variable, financial stability, Table 1 shows that the debt–equity ratio ranged from a minimum of 1.2325 to a maximum of 2.9954, indicating substantial variation in leverage among NSE-listed insurance firms. The mean ratio of 1.9453 suggests that firms relied more on liabilities than equity financing, reflecting moderate but rising solvency risk, which implies that liabilities grew faster than shareholders' equity. The standard deviation of 0.494 indicates considerable dispersion across firms and years, pointing to uneven risk management practices within the sector, consistent with Mwangi and Murigu (2022). Distributional diagnostics further show that the skewness value of 0.4772 falls within the acceptable threshold

of ± 1 , while the kurtosis value of -0.7888 lies within the normality threshold of ± 3 (Kline, 2016), indicating an approximately normal and platykurtic distribution suitable for further econometric analysis.

For management efficiency, the results show that the minimum efficiency ratio was 0.4016, while the maximum ratio was 0.6656, indicating substantial variation in cost efficiency among insurers. The mean efficiency ratio of 0.5182 implies that operating expenses consumed slightly more than half of total revenue. The standard deviation of 0.0775 indicates moderate variability, reflecting differences in operational management across firms. This result supports the findings of Kariuki and Oluoch (2023), who found that increasing operating expenses adversely affected financial performance in Kenyan insurance firms. The skewness value of 0.2831 is within the acceptable threshold of ± 1 , indicating mild positive skewness. The kurtosis value of

-1.0683 lies within the ± 3 normality threshold (Kline, 2016), confirming the suitability of the data for panel regression analysis.

Trend Analysis

Trend analysis was conducted using yearly averages to examine the temporal behavior of financial stability and management efficiency over the period 2015 to 2024.

Trend Analysis for Financial Stability

This section presents the trend analysis of financial stability for insurance firms listed at the Nairobi Securities Exchange over the period 2015–2024.

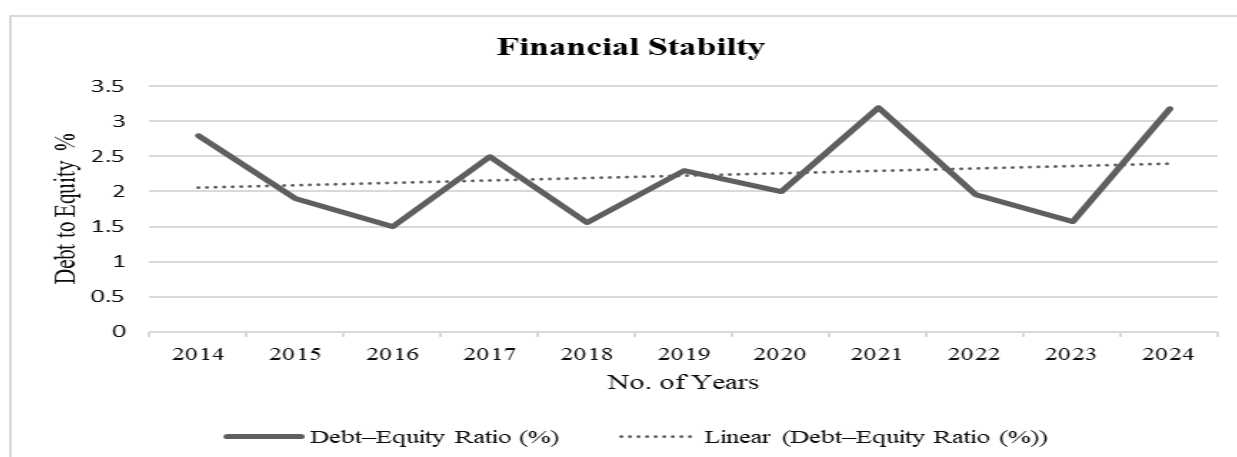


Figure 2. Trend Analysis for Financial Stability

The year-to-year trend in financial stability, measured by the debt–equity (D/E) ratio, shows pronounced volatility among NSE-listed insurance firms. In 2014, the ratio stood at 2.8%, indicating weak solvency, before improving to 1.9% in 2015 and 1.5% in 2016, reflecting reduced leverage and strengthened capital positions. However, financial stability deteriorated in 2017, with the ratio rising to 2.5%, before improving again to 1.56% in 2018. The period 2019 to 2021 witnessed renewed instability as the D/E ratio increased to 2.3%, 2.0%, and peaked at 3.2%, respectively, signaling heightened solvency risk driven by rising liabilities relative to equity. Although recovery was observed in 2022 and 2023, with ratios declining to 1.95% and 1.57%, financial stability deteriorated sharply in 2024, when the ratio surged to 3.19%, indicating renewed and significant financial instability. The observed year-to-year trend in financial stability directly reinforces the problem statement of the study, which highlights the declining and unstable solvency position of insurance firms listed at the NSE. Consequently, the trend pattern justifies the need for this study to examine how the CAMEL framework components influence financial stability, as persistent volatility suggests that underlying capital adequacy, asset quality, management efficiency, earnings ability, and liquidity

dynamics may be driving the observed instability.

Trend Analysis for Management Efficiency

This section analyzes the trend in management efficiency of insurance firms listed at the Nairobi Securities Exchange over the period 2015–2024.

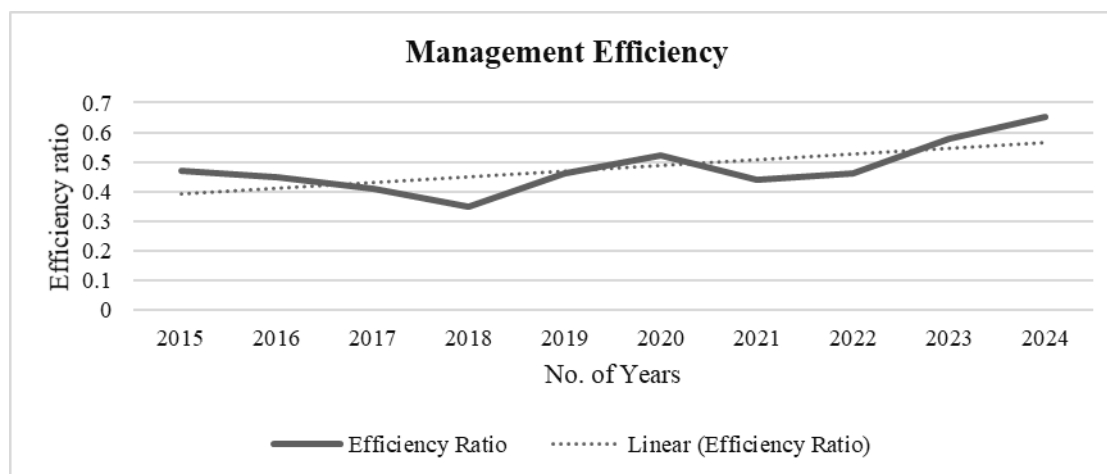


Figure 3. Trend Analysis for Management Efficiency

The efficiency ratio was relatively high in 2015 (0.48) and 2016 (0.46), suggesting that a large proportion of income was being absorbed by operating expenses, reflecting lower efficiency. The ratio declined further in 2017 (0.42) and reached its lowest point in 2018 (around 0.35), indicating a temporary improvement in efficiency as firms managed to reduce expenses relative to income. However, this improvement was not sustained, as the efficiency ratio increased again in 2019 (0.47) and peaked in 2020 (0.53), coinciding with heightened operational disruptions and rising administrative and claims-related costs during the COVID-19 period. In 2021, the ratio declined slightly to around 0.45, followed by a moderate increase in 2022 (0.47) and a sharper rise in 2023 (0.58), culminating in the highest efficiency ratio in 2024 (0.66). Overall, the upward movement in the efficiency ratio in the latter years indicates deteriorating management efficiency, as a growing share of income is consumed by operating expenses.

Inferential Analysis

This section presents the inferential analysis of the study, focusing on the relationship between the management efficiency and the financial stability of insurance firms listed at the Nairobi Securities Exchange.

Correlation Analysis

Correlation analysis was conducted to examine the strength and direction of the relationship between the dependent variable, financial stability, and the independent variable management efficiency.

Table 2: Correlation Matrix

	Financial Stability	Management Efficiency
Financial Stability	1.0000	
Management Efficiency	0.7115 (0.0000)	1.0000

The correlation analysis results indicate that management efficiency exhibits a strong positive and significant relationship ($r = 0.7115$, $p = 0.000$), indicating that higher operating expenses relative to revenue (inefficiency) increase leverage and weaken financial stability. This supports the findings of Kariuki and Oluoch (2023), who established that inefficiency adversely affects firm performance and stability.

Model Summary

This section presents the model summary results of the panel regression analysis examining the effect of management efficiency on the financial stability of insurance firms listed at the Nairobi Securities Exchange. The summary is presented in Table.3.

Table 3: Model Summary

Model	Multiple R	R Square	Adjusted Square	R- Std. Error of the Estimate	N
1	0.7814	0.6106	0.5982	0.4125	60

The coefficient of determination ($R^2 = 0.6106$) indicates that approximately 61.06% of the variation in financial stability among NSE-listed insurance firms is explained by management efficiency. This reflects a relatively high explanatory power of the model, implying that management efficiency is an effective tool for assessing financial stability. Similar findings were reported by Omondi and Muturi (2021) and Charumathi (2018), who found that management efficiency significantly, explain variations in firm performance and stability in emerging markets.

The adjusted R^2 of 0.5982 further confirms that even after adjusting for the number of predictors, about 59.82% of the variation in financial stability is explained by the model. This suggests that the included variable are relevant and that the model is not overfitted. The standard error of the estimate (0.4125) indicates a relatively low level of dispersion of the observed values from the regression line, suggesting that the model fits the data well.

Analysis of Variance (ANOVA)

The Analysis of Variance (ANOVA) to assess the overall significance of the regression model.

Table 4: ANOVA Results

Model	Sum Squares	of Df	Mean Square	F-statistic	Sig.
Regression	18.4623	5	3.6925	21.6842	0.000
Residual	11.5438	54	0.2138		
Total	30.0061	59			

The ANOVA results indicate that the overall regression model is statistically significant, as evidenced by the F-statistic of 21.6842 and a p-value of 0, which is less than the 0.05 significance level. This leads to the rejection of the null hypothesis that the regression coefficient is equal to zero.

The findings imply that management efficiency have a significant effect on the financial stability of insurance firms listed at the Nairobi Securities Exchange. In other words, the model provides a good fit for the data and is appropriate for explaining variations in financial stability. These results are consistent with prior empirical studies such as Omondi and Muturi (2021) and Alhassan and Biekpe (2016), which found that management efficiency have a statistically significant influence on financial performance and stability in financial institutions. Overall, the ANOVA findings confirm the validity and predictive power of the regression model, justifying further analysis of individual regression coefficients and hypothesis testing.

Regression Coefficient Results

This section presents the random effects regression results examining the effect of management efficiency on financial stability (measured by the debt–equity ratio).

Table 5: Random Effects Regression Coefficients

Variables	Coefficient Confidence (β)	Std. Error	t-statistic	p-value	95% Interval
Constant	3.2145	0.5123	6.2741	0.0000	2.2103 - 4.2187
Management Efficiency	0.3375	0.0924	3.6531	0.0006	0.1564 - 0.5186

The panel regression equation based on the random effect regression coefficients is presented as;

$$Y = 3.2145 + 0.3375X_{it}$$

Hypotheses Test Results

This section presents the results of hypothesis testing based on the Random Effects regression analysis.

H₀₁: Management Efficiency has no Significant Effect on Financial Stability of Insurance Firms Listed at the NSE, Kenya

Regarding management efficiency, the findings revealed the coefficient value of 0.3375 and a p-value of 0.0006. The results imply that holding other factors constant and efficiency ratio is controlled, its unit increase will lead to a rise in the debt to equity ratio, thereby reducing the financial stability of insurance firms listed at the NSE, Kenya. This indicates that inefficiencies in cost management lead to reduced profitability and increased reliance on external financing. The null hypotheses (H₀₃) is rejected, and the conclusion is made that higher operating expenses relative to revenue increase the debt–equity ratio and reduce the financial stability of insurance firms listed at the NSE, Kenya. These results are supported by the resource-based view (RBV) (Barney, 1991), which posits that firms that efficiently deploy their resources, such as managerial skills, organizational processes, and operational systems, are more likely to achieve superior performance and sustain competitive advantage.

The finding is in line with the empirical findings of Kariuki and Oluoch (2023), Muhtadin et al., (2022), and Ayadi and Naceur (2021), all of whom linked managerial inefficiency to poor financial performance. According to Kariuki and Oluoch (2023), while efficiency is crucial, an excessive drive for efficiency expressed as a low cost-to-income or high turnover ratio can directly reduce a firm's ability to handle stress, ultimately threatening its stability. However, Ndungu et al., (2020) and Ayadi and Naceur (2021) argue that higher operating costs may reflect strategic investments in technology or innovation that enhance long-term performance, suggesting that the impact of efficiency may vary depending on the nature of resource utilization. Barus, Muturi, and Kibati (2025), on the other hand, concluded that management efficiency has no significant effect on financial performance.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The study found that management efficiency exhibited a deteriorating trend over the study period, as reflected by rising efficiency ratios, indicating increasing operating costs relative to revenue. Descriptive statistics showed notable variability, suggesting differences in cost management practices across firms. Correlation analysis revealed a strong positive relationship between management efficiency and financial stability, implying that higher inefficiency increases leverage. Regression results further confirmed a positive and significant effect. This indicates that inefficient management practices increase operational costs, reduce profitability, and lead to greater reliance on debt financing, thereby weakening financial stability. The findings underscore the critical role of cost control and managerial effectiveness in enhancing firm performance and stability.

The study concludes that management efficiency plays a critical role in determining financial stability, with inefficiency significantly undermining firm performance. The positive and statistically significant relationship

between management efficiency measured by the expense ratio and the debt–equity ratio indicates that higher operating costs relative to revenue increase leverage and weaken financial stability. This finding emphasizes that efficient utilization of internal resources and capabilities is essential for achieving superior performance. Firms that fail to effectively manage their resources incur higher costs, reduced profitability, and increased reliance on external financing. The conclusion highlights that managerial inefficiencies not only erode financial performance but also limit the firm’s ability to build capital buffers and maintain liquidity. Therefore, improving operational efficiency, cost control, and managerial effectiveness is essential for enhancing financial stability in the insurance sector.

Insurance firms should focus on improving operational efficiency and cost management. Firms should implement cost optimization strategies, including process automation, digital transformation, and the elimination of redundant expenditures. The results suggest that high operating costs increase reliance on debt financing; therefore, firms should strengthen budgetary controls and performance monitoring systems to ensure efficient resource utilization. Investment in managerial capacity building, staff training, and performance-based incentives will enhance productivity and reduce inefficiencies. Additionally, firms should adopt corporate governance best practices to improve decision-making and accountability. Enhancing management efficiency will lead to improved profitability, reduced financial strain, and stronger financial stability.

Recommendations for Future Study

This study focused on the effect of the management efficiency on financial stability of insurance firms listed at the Nairobi Securities Exchange. While the study achieved its objectives, several areas remain open for further investigation. First, future studies can expand the scope by including non-listed insurance firms in Kenya. This study was limited to listed firms, which are generally larger and more regulated; therefore, including non-listed firms would provide a more comprehensive understanding of financial stability across the entire insurance sector. Second, further research can incorporate additional variables beyond management efficiency, such as macroeconomic factors (e.g., inflation, interest rates, and exchange rates) and firm-specific characteristics (e.g., firm size, ownership structure, and market share). This would help to capture external influences on financial stability and improve the explanatory power of the model.

Third, future studies can adopt alternative measures of financial stability, such as the Z-score, or risk-based capital measures, instead of relying solely on the debt–equity ratio. This would allow for robustness checks and a more comprehensive assessment of financial stability. Fourth, given that the coefficient of determination ($R^2 = 0.6106$) indicates that approximately 61.06% of the variation in financial stability is explained by management efficiency, there remains 38.94% of the variation unexplained. Future research should therefore focus on exploring this unexplained proportion by incorporating additional determinants of financial stability beyond management efficiency. Fifth, comparative studies can be conducted across different sectors or countries, particularly within East Africa or other emerging markets, to examine whether the relationship between management efficiency and financial stability holds across different institutional and regulatory environments.

REFERENCES

- Abdelbadie, R. A., & Salama, A. (2019). Corporate Governance and Financial Stability in US Banks: Do Indirect Interlocks Matter?. *Journal of Business Research*, 104 (3), 85-105.
- Barney, J. B., & Arikan, A. M. (1991). The Resource-Based View: Origins and Implications. *The Blackwell Handbook of Strategic Management*, 8(4), 123-182.
- Barus, J. J., Muturi, W., Kibati, P., & Koima, J. (2017). Effect of Management Efficiency on Financial Performance of Savings and Credit Societies in Kenya. *Journal of Strategic*

- Dogarawa, A. B. (2020). Estimating the Marginal Effect of Interaction between Industry Concentration and Camels Indicators on Financial Performance of Deposit Money Banks in Nigeria. *Journal of Financial Reporting and Accounting*, 4, (9), 49 - 60.
- Kariuki, D. W., Muturi, W., & Njeru, A. (2021). Influence of Liquidity on Financial Performance of Insurance Companies in Kenya. *Journal of Agriculture, Science and Technology*, 20(3), 94-101.
- Kuria, D.(2024). Mobile Banking and the Propagation of E-Commerce in Kenya through Reliable Payment Solutions *Journal of Financial Economics*, 7(2), 64-84
- Lakens, D. (2022). Sample Size Justification. *Collabra: Psychology*, 8(1), 33-67.
- Lipunga, A. M. (2016). Determinants of Profitability of Listed Commercial Banks in Developing Countries: Evidence from Malawi. *Research Journal of Finance and Accounting*, 5(6), 41-49.
- Mhlongo, N., Kunjal, D., & Muzindutsi, P. F. (2025). The Influence of Fintech Innovations on Bank Competition and Performance in South Africa. *Modern Finance*, 3(2), 1-12.
- Mian, A., & Santos, J. A. (2018). Liquidity Risk And Maturity Management over the Credit Cycle. *Journal of Financial Economics*, 6(2), 16-28
- Moulton, H. G. (1918). Commercial Banking and Capital Formation: III. *Journal of Political Economy*, 26(7), 705-731.
- Mugambi, P. M., Muturi, W., & Njeru, A. (2023). Effect of Liquidity on Financial Performance of Star Rated Hotels in Nairobi County, Kenya. *International Academic Journal of Economics and Finance*, 3 (8), 14-22
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research Methods: Quantitative & Qualitative Approaches* (Vol. 2, No. 2). Nairobi: Acts press.
- Muriithi, P. K., Nasieku, T., & Memba, F. (2022). Influence of Credit Management on Financial Intermediation Efficiency of Deposit Taking SACCOS'S in Kenya. *Journal of Accounting*, 5(1), 1-12.
- Muriuki, C. (2021). Effect of Mobile Lending on the Level of Nonperforming Loans in the Kenyan Banking Industry . *International Academic Journal of Economics and Finance*, 3(4), 172-185.
- Musabi, A. B., & Mbithi, M. (2018). Influence of Prudential Regulations on Financial Performance of Commercial Banks in Kenya. *Strategic Journal of Business & Change Management*, 5(4), 1176-1190.
- Mutua, M. M., Juma, J., & Owuor, D. (2020). Effects of Project Monitoring Practices on Implementation of Road Construction Projects: A Case Study of Kilifi County. *The Strategic Journal of Business & Change Management*, 7(1), 664-685.
- Mutumira, M. (2019). Effect of Capital Adequacy On The Financial Performance of Insurance Companies in Kenya. *International Academic Journal of Economics and Finance*, 3(4), 172-185.
- Mwamba, N., Massawe, N., & Komba, K. (2016). Financial Sector Development and Financial Inclusion. *Tanzania: The Path to Prosperity*, 2(4), 11-19.
- Naili, A., Hidayat, M. H., & Elina, R. (2025). Optimizing the Role of Working Capital Financing in Improving the Economy of the Prenduan Village Community: Case Study Of Bprs Bhakti Sumekar, Pragaan Branch. *Ekspansi: Jurnal Ekonomi, Keuangan, Perbankan, dan Akuntansi*, 17(1), 41-56.
- Ndegwa, K. K. (2018). Effect of Capital Adequacy on the Financial Performance of Microfinance Banks In Kenya *International Academic Journal of Economics and Finance*, 15(4), 72-85.
- Ndungu, S. (2020). Relationship Between Asset Securitization and Financial Performance of Listed

- Commercial Banks in Kenya. *Journal of Finance and Accounting*, 9(9), 78 -99.
- Ngatia, J., Makori, D., & Theuri, M. J. (2024). Camel Financial Indicators and Performance of Tier Three Commercial Banks in Kenya. *Journal of Finance and Accounting*, 8(9), 80-99.
- Nguyen, K. Q. T., Phan, T. H. N., & Hang, N. M. (2024). The Effect of Liquidity on Firm's Performance: Case of Vietnam. *Journal of Eastern European and Central Asian Research (JEECAR)*, 11(1), 176-187.
- Njeru, A. K. (2022). Asset Quality Assessment in the Absence of Quality Data towards Optimal Credit Intermediation (No. 63). KBA Centre for Research on Financial Markets and Policy Working Paper Series.
- Odhiambo, W. O., Ndede, F., & Wamugo, L. (2025). Prudential Regulations and Profitability of Microfinance Banks in Kenya. *Asian Journal of Economics, Finance and Management*, 7(1), 138-151.
- Okeno, D. M. (2018). Influence of Central Bank Prudential Guidelines on Performance of Commercial Banks in Kenya. *International Journal Of Economics and Financial*, 9(4), 76-90.
- Olubunmi, A., Paul, G., & Aderogba, J. (2025). Digital Taxation and Sustainable Development Goals in a Developing Economy. *International Journal of Innovative Science and Research Technology*, 10(6), 378-395.
- Ondieki, D. N., & Jagongo, A. (2013). Effects of Lowering Central Bank Rate on Bank's Prime Rate: An Analysis of Kenyan Commercial Banks. *International Journal of Humanities and Social Science*, 3(20), 207-214.
- Odongo, G. N., & Irungu, A. M. (2023). Asset Quality and the Financial Performance of Commercial Banks in South Sudan. *Journal of Finance and Accounting*, 3(3), 48-57.
- Ongore, V. O., & Kusa, G. B. (2013). Determinants of Financial Performance of Commercial Banks in Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237-252.
- Onyekwelu, U. L., Chukwuani, V. N., & Onyeka, V. N. (2018). Effect of Liquidity on Financial Performance of Deposit Money Banks in Nigeria. *Journal of Economics and Sustainable Development*, 9(4), 19-28.
- Ouma, C. O., Makori, D., & Aluoch, M. O. (2024). Firm Characteristics and Financial Performance of Microfinance Banks in Kenya. *International Academic Journal of Economics and Finance*, 4(3), 164-193.
- Ozurumba, B. A. (2016). Impact of Non-Performing Loans on the Performance of Selected Commercial Banks in Nigeria. *Research Journal Of Finance and Accounting*, 7(16), 95-109.
- Pape, F. (2020). Rethinking Liquidity: A Critical Macro-Finance View. *Finance And Society*, 6(1), 67-75.
- Park, H. M. (2011). Practical Guides to Panel Data Modeling: A Step-by-Step Analysis using Stata. *Public Management and Policy Analysis Program, Graduate School Of International Relations, International University of Japan*, 12, (2), 1-52.
- Peltzman, S. (1977). The Gains and Losses from Industrial Concentration. *The Journal of Law and Economics*, 20(2), 229-263.
- Quoc Trung, N. K. (2021). Determinants of Bank Performance in Vietnamese Commercial Banks: An Application of the Camels Model. *Cogent Business & Management*, 8(1), 17-43.
- Qureshi, M. S., Adrian, T., & Tsuruga, T. (2021). Bank to Sovereign Risk Transmission: *The Journal of Law and Economics*, 10(2), 29-63.
- Ray, S., & Mahapatra, S. K. (2019). Asset Quality and Performance: An Empirical Study of Indian

- Microfinance Institutions. *International Journal of Services, Economics and Management*, 10(3), 248-265.
- Reschiwati, R., Syahdina, A., & Handayani, S. (2020). Effect of Liquidity, Profitability, and Size of Companies on Firm Value. *Utopia y Praxis Latinoamericana*, 25(6), 325-332.
- Said, A. (2018). Effect of the Asset Quality on the Bank Profitability: A Study of US Commercial Small Banks. *International Research Journal of Applied Finance*, 9(4), 196-204.
- Ristyawan, M. R., Putro, U. S., & Siallagan, M. (2023). Decision Making Mechanism in research. *Cogent Business & Management*, 10(2), 224-217.
- Rono, R., Kimengi, I. N., & Githinji, F. W. (2021). Research Paper Activities used by Secondary School Teachers to Address the Menace of Drug and Substance Abuse in Kenya. *Journal of Contemporary Social Sciences and Education*, 2(1), 1-14.
- Theophillus, A., Akintoye, R., & Salawu, R. O. (2018). Earnings Quality and Firms Financial Performance: A Missing Link in the Listed Firms in Nigeria. *International Journal of Accounting & Finance (IJAF)*, 7(2), 53-66.
- Trad, N., Trabelsi, M. A., & Goux, J. F. (2017). Risk and Profitability of Islamic Banks: A Religious Deception or an Alternative Solution?. *European Research on Management and Business Economics*, 23(1), 40-45.
- Van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of service research*, 13(3), 253-266.
- Vanderstoep, S. W., & Johnson, D. D. (2008). *Research Methods for Everyday life: Blending Qualitative and Quantitative Approaches*. John Wiley & Sons 7(2), 1153-1266..
- Wairimu, I. N. (2017). The Effect of Central Bank Prudential Regulations on Performance of Commercial Banks in Kenya. *Research Journal of Finance and Accounting*, 4(16), 5-14.
- Wanjagi, J., Nasieku, T., & Fatoki, O. (2024). Effect of Capital Adequacy on Operational Efficiency of Commercial Banks in Kenya. *ESI Preprints (European Scientific Journal, ESJ)*, 20(22), 49-49.
- Wanjala, K., & Gachanja, J. N. (2020). Mr Bank Specific Determinants of Nonperforming Loans in Kenya. *Business Perspective Review*, 2(1), 29-44.
- Wanjiru, B. N., Jagongo, A. O., & Ndede, F. W. (2024). Effect of Capital Adequacy on Financial Performance of Commercial Banks in Kenya. *The Strategic Journal of Business & Change Management*, 11(2), 327-349.
- Wanke, P., Maredza, A., & Gupta, R. (2017). Merger and Acquisitions in South African Banking: A Network DEA Model. *Research in International Business and Finance*, 41,(9) 362-376.
- Waswa, C. W., Mukras, M. S., & Oima, D. (2018). Effect of Liquidity On Financial Performance of the Sugar Industry in Kenya. *Research Journal of Finance and Accounting*, 4(16), 35-54.
- Westfall, J., Kenny, D. A., & Judd, C. M. (2014). Statistical Power and Optimal Design in Experiments in which Samples of Participants Respond to Samples of Stimuli. *Journal of Experimental Psychology: General*, 4(5), 20-26.