



Macroeconomic Factors, Corporate Governance, Assets Structure, And Firm Value: Nairobi Securities Exchange Kenya

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Abstract: The study investigated the moderating effect of macroeconomic factors on the relationship between corporate governance, asset structure, and the value of firms listed at the Nairobi Securities Exchange in Kenya and set within the broader context of global financial markets, where the value of listed firms has declined despite their significant presence, with over 41,000 firms valued at \$ 80 trillion. The study used a causal-comparative research methodology, relying on secondary data collected from listed firms on the Nairobi Securities Exchange from 2010 to 2019. Panel data analysis and multiple linear regression were the main methods employed to analyse the data. The results of the study indicate that macroeconomic factors do not appear to moderate the relationship between corporate governance practices and the value of the company. However, the interaction between asset structure and macroeconomic factors is noted to be significant. The article found that macroeconomic factors do not moderate the relationship between corporate governance and the value of firms listed on the Nairobi Securities Exchange. However, they do have a moderating effect on the relationship between asset structure and firm value in this specific context.

Keywords: macroeconomic factors, corporate governance, asset structure, firm value

1. Introduction

Globally, there are approximately over 41,000 listed companies with a total value of \$ 80 trillion, as reported by the Organisation for Economic Cooperation and Development in 2019. Despite the significant role these listed firms play in providing a robust market for various products and services, as well as contributing to government revenue through corporate taxes, their overall value has experienced a continuous decline. This decline is evident in terms of diminishing profits, increasing debt levels, and instances of suspension or delisting from securities exchanges worldwide. Previous studies have associated the delisting and subsequent decline in firm value with macroeconomic factors (Rao, 2016). This study goes beyond previous research by exploring the moderating effect of macroeconomic factors on the correlation between corporate governance, asset structure, and the value of firms listed on the Nairobi Securities Exchange (NSE) from 2010 to 2019.

Macroeconomics delves into the broader scope of the economy, with a focus on understanding how various factors, such as inflation, foreign exchange rates, economic growth, and interest rates, interplay to shape the overall economic landscape (Issah & Antwi, 2017). The impact of macroeconomic factors extends across diverse global populations, as highlighted by the World Bank's World Development Indicators Report (2012). Inflation, characterised by a persistent increase in the prices of goods and services within an economy over a specified period, is a key macroeconomic consideration (Van Khanh, Hung, Van, & Huyen, 2020; Tucker, 2007). Scholars like Sloman and Kevin (2007) distinguish between demand-driven and cost-driven inflation. High inflation can increase the costs associated with borrowing capital, leading to a reduction in economic activity. On the contrary, a decrease in economic growth diminishes demand, potentially resulting in the closure of companies (Macharia & Otieno, 2017). Maintaining a balance without excessive inflation and fostering economic growth is crucial to predicting an increase in the value of firms.

The exchange rate, which denotes the cost of converting one country's currency into another, is a pivotal factor in international trade. Fluctuations in exchange rates are often influenced by changes in credit market conditions, including variations in interest rates between nations and adjustments in central bank monetary policies (Grambovas & McLeay, 2006). These fluctuations can indirectly impact firms engaged in international trade, making imports more expensive as the local currency depreciates, thus reducing the volume of imports. Gleichzeitig, interest rates, representing the cost of capital obtained from financing partners, play a crucial role in economic activity. As highlighted by Lasher (2016), high interest rates tend to

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suppress economic activity, while low interest rates stimulate it, contributing to an increase in the gross domestic product (Geske & Roll, 1983). Musa (2011) contends that an increase in interest rates affects the valuation of securities, with expectations of market participants rising alongside the securities' value.

The value of a firm, an economic concept reflecting its worth, is typically determined by its market value, considering the claims of both creditors and shareholders. Various valuation methods, such as Tobin's Q, gauge a firm's worth, with a higher value indicating greater success for shareholders (Miller & Modigliani, 1961). Growth in a firm's value is viewed positively, attracting investors, and bolstering the firm's security price (Triani & Tarmidi, 2019). However, it is essential to note that macroeconomic factors like inflation and foreign exchange rates lie beyond a company's control and are challenging to influence (Dioha, Mohammed, & Okpanachi, 2018).

When navigating a dynamic market, the asset structure of a firm is crucial. The asset structure encompasses fixed assets such as property, plants, and equipment, as well as liquid assets such as cash, bank balances, and inventories (Mawih, 2014). Firms can leverage their assets for funding by directing the acquired funds toward both external and internal operations (Stalz & Johnson, 1985). Research on asset structure is deemed more practical and universally significant than research on capital structure, according to Xu and Xu (2013), as assets are fundamental in building firm value and minimising risks (Olatunji. & Adegbite, 2014).

2. Theoretical Review

Agency theory, stewardship theory, and stakeholders' theory played a role in this research. Principals entrust decision-making authority to agents, according to the agency theory. Financial planners and portfolio managers act as agents for their clients and are entrusted with managing their assets (Mitnick, 2006). Because the agent makes many financial decisions that influence the principal, there may be conflicts of opinion and disparities in priorities and interests (Jensen & Mackling, 1976). Conflicts would affect the value of a firm in the long run. Theory comes into play to mitigate the conflicts. Therefore, a good principal-agent relationship can foster the value of a firm.

Stewardship theory states that managers, left on their own, can control the assets they control for better performance of a firm. Stewardship theory asserts that a steward preserves and maximises shareholder value through firm performance. It emphasises the need for employees or executives to behave more independently to maximise shareholder returns. Employees take responsibility for their jobs and work hard (Donaldson & Davis, 1991 and 1993).

Stakeholder theory was first coined by Freeman (1984). According to him, stakeholders are an extensive range of parties and individuals affected by the firm and its actions. Furthermore, he claims that keeping customers satisfied is critical to a company's long-term success. According to Freeman, a firm is only successful if it provides value to its stakeholders. Stakeholders impact the firm both positively and negatively.

3. Empirical Review

Macroeconomics deals with the entire economy's study, focussing on indicators that include economic growth, inflation, foreign exchange rate, and interest rates to comprehend how the economy functions (Issah & Antwi, 2017). These factors include economic growth, inflation, foreign exchange, and interest rates (Ariemba, Kiweu, and Riro, 2015). Exchange rate fluctuations are frequently influenced by changes in credit market conditions, as seen by changes in interest rate differentials between countries and monetary policy changes by central banks. At the same time, the interest rate is the price at which lenders can lend their money and borrowers can borrow. According to Lasher (2016), high interest rates stifle economic activity, while low interest rates stimulate it. The study claims that this is because most individuals and businesses operate on credit.

Inflation is the persistent increase in the price of goods in a given economy and, for the most part, a year in a specific period (Van Khanh, Hung, Van, & Huyen, 2020; Tucker, 2007). According to Sloman and Kevin (2007), inflation can be demand-driven or cost-driven. Eventually, a firm closes (Macharia & Otieno 2017). However, firms are expected to enhance their value without high inflationary levels and economic growth. The cost of exchanging one country's currency for another's currency is known as the exchange rate.

On the other hand, the levels of gross domestic product of gross domestic product will likely influence the returns of the returns of equity by impacting corporate profitability. An increase in production would boost expected future cash and, as a result, share prices, while in a recession the opposite effect will be valid (Chen & Sharma, 2002). The real gross domestic product measures the amount of economic production adjusted for price fluctuations. This adjustment converts nominal GDP, a money value metric, into a quantity-of-total-output index. It is the cumulative value of the final goods and services generated by an economy annually. The estimated annual GDP growth rate is used to calculate the real GDP. Most studies have discovered that current protection levels are positively linked to potential levels of actual economic activity, as calculated by GDP (Geske & Roll, 1983).

Egbunike and Okerekeoti (2018) found that macroeconomic indicators such as inflation rates, unemployment rates, and economic growth all had a global correlation with business value. However, the sample size of the previous study was limited to consumer goods firms, whereas the current analysis encompasses all NSE-listed firms from 2010 to 2019. Issah and Antwi (2017) found that macroeconomic factors influence the valuation of a company. The study by Kanwal and Nadeem (2013) pointed out that inflation significantly negatively impacts

ROA. Chaudry et al. (2013) indicated that inflation negatively relates to the manufacturing sector, but positively to the services and agriculture sectors. Also, the above study does not elaborate on the specific components applied to justify the results. The scope of the study covered 2011-2017, while the current study covers 2010-2019. Chow et al. (2019) claimed that macroeconomic uncertainty, external sources of macroeconomic uncertainty, local sources of macroeconomic uncertainty, and volatility as macroeconomic consequences significantly impact firm capital structure. However, empirical findings paint a complex picture of macroeconomic factors that moderate the relationship between corporate governance, asset structure, and firm value on the Nairobi Securities Exchange.

4. Methodology

A causal-comparative research design was used, as well as secondary data. Multiple regression was used in data analysis, as well as descriptive and inferential statistics. Tables and figures are used to present the findings. The macroeconomic variable was constructed as an index comprising economic growth, inflation, and foreign exchange rates. This index captured the general economic conditions and performance of a country's economy. This index aims to summarise these vital macroeconomic factors to reflect the broader economic environment in which a firm operates.

The target population of the research consisted of all companies listed on the Nairobi Securities Exchange between 2010 and 2019. Sixty-four firms were listed on the NSE as of December 31, 2019. Of the 64 firms targeted, 13 Awas were excluded from the study. The 12 companies had incomplete data, while one was suspended. This decision ensures the availability of complete and consistent data for analysis, which is essential to draw meaningful conclusions. As a result of these considerations, the study included 51 firms that were consistently listed between 2010 and 2019 and had complete data. By focussing on the 51 consistently listed and with complete data, the study was able to employ balanced panel data analysis. This analytical approach allows for studying changes within individual entities over time while accounting for potential differences between entities.

Table 1: Measurement of Variables

Variables	Indicators	
Measurements		
Macroeconomic factors	Inflation	Average yearly inflation rates
	Economic growth	Average GDP growth rate
	Interest rates	Average interest rate yearly
	Foreign exchange rates	Average annual Ksh. against dollars
Firm value	Tobin's Q	The market value of firm/Book value of a firm
Control variables	Firm size	Log of total assets
	Leverage	Total debts to equity
	Firm Age	The total number of years since the firm was listed

Source: Barine, 2022

4.1. Econometric Model

The study hypothesised that macroeconomic factors have no moderating effects on the relationship between corporate governance, asset structure, and the value of firms listed on the Nairobi Securities Exchange.

A two-phase model was used to test the relationship between corporate governance, asset structure, and firm value. First, macroeconomic aspects, namely inflation rate, economic growth, interest rate, and foreign exchange rate variables, are estimated as the root model to ascertain the influence of the predictor variables on the dependent variables. Independent variables do not have to be statistically substantial indicators of the dependent variable to test for a connection. The second phase encapsulates the interaction terms which are computed. Therefore, the moderating impact of the inflation rate, interest rate, foreign exchange rates, and economic growth on the relationship between corporate governance, asset structure, and firm value of the listed firms at the NSE is estimated using moderating equation 1

$$Y_{it} = c_0 + c_1X_{1it} + c_2X_{2it} + c_3X_{3it}Z_{it} + c_4X_{4it}Z_{it} + e_1 \dots \dots \dots 1$$

Where

Y is the firm value, X is the corporate governance and asset structure, and Z is the macroeconomic factors. The interaction between the moderator and the independent variable is XZ; e_1 is a residual variable, and c_1 , c_2 , and c_3 represent the relationship between the dependent and independent variables, the moderator variable, and the independent variable interaction moderator. The moderating variable XZ is X and Z's product, sometimes centred between X and Z (centred means that the average is subtracted from each observed value of the variable). If the XZ interaction is statistically significant, the significant interaction source is often explored by examining conditional effects with contrasts and plots.

4.2. Diagnostic Tests

The following diagnostic tests were conducted:

Table 2: Normality Test

Test	Probability
Breusch-Pagan-Godfrey (BPG) test	0.071

The findings indicated that the value of the Jarque-Bera statistic was 2.816 with a p-value of 0.244. Therefore, given that the p-value ($0.244 > 0.05$) is greater than 0.05, the alternative hypothesis was rejected, concluding that the data was distributed normally.

Table 3: Heteroscedasticity Test

Jarque-Bera statistic	Probability
2.816	0.244

Source: Barine, 2022

The results indicated that the p-value for the Breusch-Pagan statistic was 0.0718, which is more than 0.05. The null hypothesis that there is no heteroscedasticity is thus accepted.

Table 4: Multicollinearity Test

Variable	VIF	1/VIF
Asset Structure	1.028	0.972
Firm Age	1.069	0.935
Firm size	1.216	0.822
Leverage	1.137	0.879
Mean VIF	1.097	

Source: Barine, 2022

The results indicated that the VIF values of all variables are below 10, and the tolerance value (1/VIF) is below 1. This implies that there is no multicollinearity problem.

Table 5: Autocorrelation Test

Test	Durbin-Watson statistic
Autocorrelation Test	1.7

Source: Barine, 2022

The Durbin-Watson statistic was used to test autocorrelation. The Durbin-Watson statistic should range between 1.5 and 2.5. The results showed that the Durbin-Watson statistic was 1.7, which implies no autocorrelation problem.

Table 6: Model Specification Test

Test	Probability
Breusch-Pagan LM test	0.000
Hausman test	0.137

Source: Barine, 2022. The results indicated that the p-value is 0.1327, suggesting that the random effects model was suitable.

4.3. Descriptive Results for the Moderating Variables

The moderating variables in this study were the inflation rate, economic growth, the interest rate, and the foreign exchange rate. Table 7 presents the descriptive results of the variables.

Table 7: Descriptive Results for the Moderating Variables

Variable		Mean	Std. Dev.	Min	Max	Observations
Inflation Rate	Overall	5.91	2.204	1.4	9.4	N = 510
	Between		0	5.91	5.91	n = 51
	Within		2.204	1.4	9.4	T = 10
Economic Growth	Overall	5.86	.984	4.6	8.4	N = 510
	Between		0	5.86	5.86	n = 51
	Within		.984	4.6	8.4	T = 10
Interest Rate	Overall	8.314	.704	7.17	9.81	N = 510
	Between		0	8.314	8.314	n = 51
	Within		.704	7.17	9.81	T = 10
Foreign Exchange Rate	Overall	100.743	3.530	90.6	103.23	N = 510
	Between		1.44	100.7	100.74	n = 51

Within	3.530	90.6	103.23	T =	10
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Source: Barine, 2022

Table 7 shows that the inflation rate average across all observations is 5.91. The standard deviation is 2.204, which indicates that the inflation rate varies quite a bit from the mean. The minimum inflation rate observed is 1.4, and the maximum is 9.4. There are 510 total observations for the inflation rate. The average economic growth rate across all observations is 5.86. The standard deviation is 0.984, indicating relatively low variability around the mean. The minimum economic growth rate observed is 4.6. The maximum observed economic growth rate is 8.4. There are also 510 total observations for economic growth. The average interest rate in all observations is 8.314. The standard deviation is 0.704, indicating relatively low variability around the mean. The minimum interest rate observed is 7.17. The maximum interest rate observed is 9.81. Similarly to the other variables, there are 510 total observations for interest rates. The average foreign exchange rate in all observations is 100.743. The standard deviation is 3.530, indicating moderate variability around the mean. The minimum foreign exchange rate observed is 90.6. The maximum foreign exchange rate observed is 103.23. There are again 510 total observations for foreign exchange rates.

The "between" variation refers to the differences between groups (in this case, there are 51 groups), while the "within" variation refers to the variability within each group. The values for "Between" and "Within" can help determine if there are significant differences or patterns between groups.

4.5. Descriptive Results Of The Dependent Variable

The dependent variable in this study was the firm value, which was measured as the market value of the firm to the firm's book value. The descriptive analysis of the results of the values is shown in Table 8.

Table 8: Descriptive Results for Firm Value

Variable		Mean	Std. Dev.	Min	Max	Observations
Firm Value	Overall,	.463	.338	.100	1.390	N = 510
	Between		.334	.106	1.315	n = 51
	Within		.071	.252	.744	T = 10

Source: Barine, 2022

Table 9: Descriptive Results of the Control Variables

Variable		Mean	Std. Dev.	Min	Max	Observations
Age	overall	30.421	18.202	1	70	N = 510
	between		18.134	5.5	65.5	n = 51
	within		2.875	25.921	34.921	T = 10
Firm Size	overall	6.420	.369	5.521	7.388	N = 510
	between		.368	5.532	7.280	n = 51
	within		.0522	6.289	6.645	T = 10
Leverage	overall	1.270	1.198	.000	8.555	N = 510
	between		.948	.000	3.246	n = 51
	within		.743	-1.327	6.579	T = 10

Source: Barine, 2022

The results in Table 8 show that the firms' average value was 0.463, with the maximum value being 1.390829 and the minimum value being 0.100, with a standard deviation of 0.338. The results indicated that the value of some firms has increased up to 1.390 times their book value while the value of some firms has reduced by up to 0.100 times their book value. Thus, on average, the value of some firms is about 0.463 their book value.

The results indicated that the firms' average age is 30.42, with a maximum of 70 years and a minimum of 1 year. This implies that all the firms used in the study have been listed on the NSE and the period for which they have been listed varies from firm to firm. The results also indicate that the average firm size is 6.42, with a maximum of 7.39 and a minimum of 5.52. This implies that the firms vary in terms of size. The results also show that the average leverage is 1.27, with a maximum of 8.56 and a minimum of 0.0003. This implies that all firms use debt to finance their operations and that the ratio of debt to equity varies from one firm to another.

4.6. Inferential Analysis And Discussions

The study evaluated whether macroeconomic factors moderate the relationship between corporate governance, asset structure, and the value of listed firms on the Nairobi Securities Exchange.

A multiple linear regression model was used to test the following hypothesis: macroeconomic factors do not have a moderating effect on the relationship between corporate governance, asset structure, and the value of firms listed on the Nairobi Securities Exchange.

The first phase was to assess the relationship between firm value and corporate governance and asset structure variables using the following equation:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \varepsilon \dots \dots \dots 2$$

where

Y_{it} is the firm value,

X_{1it} is the corporate governance index, and X_{2it} the asset structure, β_1 and β_2 are the coefficients, β_0 is the constant, and ε is the error term.

4.7. Model Specification Test

In order to determine whether to use pooled OLS, fixed or random-effects model, the Breusch-Pagan LM test was carried out. The results show that the p-value is 0.000, less than 0.005. Therefore, the results implied that the pooled OLS was inappropriate and that a fixed or random-effects model could be appropriate.

The Hausman test was thus carried out to determine whether a fixed or random-effects model was appropriate.

Table 10: Model Specification Test Results

Test	Probability
Breusch-Pagan LM test	0.000
Hausman test	0.137

Source: Barine, 2022

The results indicated in Table 10 show that the p-value is 0.137, suggesting that the random-effects model was suitable.

The inferential analysis of the evaluation of the moderating effect of macroeconomic factors on the relationship between corporate governance, asset structure and the value of firms listed on the Nairobi Securities Exchange is shown in Table 11.

The first phase was to assess the relationship between the dependent and independent variables using the following equation.

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \varepsilon \dots \dots \dots 3 \text{ Where}$$

Y_{it} is the firm value,

X_{1it} is the corporate governance index, and X_{2it} is the asset structure, β_1 and β_2 are the coefficients, β_0 is the constant, and ε is the error term.

Table 11: Inferential analysis of the evaluation of the moderating effect of macroeconomic factors on the relationship between corporate governance, asset structure, and the value of firms listed on the Nairobi Securities Exchange.

Variable	Coefficient	Std. Error	t-statistics	Prob.
C	-4.115	1.254	-3.281	0.001
Corporate Governance	0.195	0.030	6.423	0.000
Asset Structure	-0.844	0.325	-2.596	0.009
Macroeconomic Factors	0.002	0.030	0.074	0.940
R ²	0.081			
Adjusted R ²	0.076			

Source: Barine, 2022

The results in Table 11 show that the relationship between firm value and the variables of corporate governance and asset structure is significant ($\beta = 0.195$, $p < 0.05$) for corporate governance and ($\beta = -0.84$, $p < 0.05$) for asset structure. The results also indicate that the relationship between the moderating variable (macroeconomic factors) and the firm value is not significant ($\beta = 0.002$, $p > 0.05$), but the F statistic is significant ($p = 0.000 < 0.05$).

The third step was to introduce the interaction of the moderator with the independent variables into the model using the following equation.

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{1it} * X_{3it} + \beta_5 X_{2it} * X_{3it} + \varepsilon \dots \dots \dots 4 \text{ Where}$$

Y_{it} is the firm value, X_{1it} is corporate governance, X_{2it} is asset structure, X_{3it} is macroeconomic factors, $X_{1it} * X_{3it}$ is the interaction of corporate governance and macroeconomic factors, and $X_{2it} * X_{3it}$ is the interaction of asset structure. Macroeconomic factors, β_1 - β_5 , are the coefficients and β_0 is the constant.

Table 12: Regression Results for the Moderating Effect of Macroeconomic Factors on the Relationship Between Corporate Governance, Asset Structure, and Firm Value

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.576	24.232	0.065	0.948
Corporate Governance	-0.011	0.892	-0.012	0.990

Asset Structure	-0.927	0.317	-2.917	0.003
Macro-economic factors	-0.507	0.803	-0.631	0.527
Corporate governance* Macro-economic factors	0.006	0.029	0.225	0.821
Asset Structure* Macro-economic factors	0.385	0.072	5.290	0.000
R ²	0.130			
Adjusted R ²	0.121			
F statistic	0.00			

Source: Barine, 2022

The results in Table 12 indicate that the p-value for the interaction of corporate governance and macroeconomic factors is insignificant ($\beta = 0.006$, $p > 0.05$). This implies that macroeconomic factors do not moderate the relationship between corporate governance and firm value. The null hypothesis that macroeconomic factors have no moderating effect on the relationship between corporate governance

The value of firms listed at the Nairobi Securities Exchange is thus accepted. The results also indicate that the value of the interaction of asset structure and macroeconomic factors is significant ($\beta = 0.385$, $p < 0.05$).

The results show that macroeconomic factors moderate the relationship between the asset structure and the firm's value. Therefore, the null hypothesis that macroeconomic factors will not moderate the relationship between the asset structure and the value of firms listed on the Nairobi Stock Exchange is rejected.

The results are consistent with (Egbunike & Okerekeoti, 2018; Issah & Antwi, 2017; and Kanwal & Nadeem, 2013). Attention should be paid to macroeconomic issues such as inflation, economic growth, interest rates, and foreign exchange rates, as they moderate the link between asset structure and the value of firms listed on the Nairobi Securities Exchange.

Such factors can affect the availability of resources, such as finances for a firm's operations and, more particularly, the firm's return on investment. Similarly, firms operating under stable macroeconomic conditions are expected to outperform those operating under unstable macroeconomic conditions. It should be noted that a firm's ability to position itself in turbulent macroeconomic conditions such as inflation rate, economic growth, interest rate, and foreign exchange is a remedy to enhancing firm value (Abdullah & Mansor, 2018).

5. Results And Findings

The focus of the study was to evaluate whether macroeconomic factors moderate the relationship between corporate governance, asset structure, and the value of listed firms on the Nairobi Securities Exchange. A multiple linear regression model was used to test the null hypothesis that macroeconomic factors have no moderating effect on the interaction between corporate governance, asset structure and the value of Nairobi Securities Exchange firms. According to Baron and Kenny's (1986) recommendations, the analysis was carried out in three stages. The results also showed that there was no significant relationship between the moderating variable (macroeconomic factors) and the firm value. However, the model's overall F-statistic was significant, showing that independent and moderating variables can have an impact on the dependent variable.

According to the findings, the p-value of the relationship between corporate governance and economic factors was insignificant. According to the research, macroeconomic factors do not moderate the relationship between corporate governance and firm value. As a result, the null hypothesis that macroeconomic factors have no moderating effect on the relationship between corporate governance and the value of firms listed on the Nairobi Securities Exchange is accepted. The results also indicated a significant value for the interaction of asset structure and macroeconomic factors.

The results suggested that macroeconomic factors moderate the link between asset structure and firm value. As a result, the null hypothesis that macroeconomic factors have no moderating effect on the relationship between corporate asset structure and the value of firms listed on the Nairobi Securities Exchange is thus rejected. The study concludes that macroeconomic factors moderate the relationship between asset structure and firm value. The study concludes that macroeconomic factors do not moderate the relationship between corporate governance and firm value.

6. Summary And Conclusion

The primary objective of this study was to assess the moderating impact of macroeconomic factors on the correlation between corporate governance, asset structure, and the valuation of firms listed on the Nairobi Securities Exchange. The research employed a multiple linear regression model to test the null hypothesis, positing that macroeconomic factors do not exert a moderating influence on the association between corporate governance, asset structure, and firm value within the context of the Nairobi Securities Exchange.

The findings indicated a lack of a significant relationship between the moderating variable (macroeconomic factors) and the value of the firm. Nevertheless, the overall F statistic of the model was significant, suggesting that the combined influence of the independent and moderating variables could affect the dependent variable. Specifically, the p-value for the relationship between corporate governance and economic factors was deemed insignificant. Consequently, the study rejected the null hypothesis that macroeconomic factors do not moderate the connection between corporate governance and the value of firms listed on the Nairobi Securities Exchange.

Interestingly, the results suggested that macroeconomic factors moderate the relationship between asset structure and firm value. In summary, this study concludes that macroeconomic factors play a moderating role in influencing the association between asset structure and firm value. At the same time, they do not exhibit a similar modulating effect on the relationship between corporate governance and firm value.

7. Recommendations And Contribution

Organisations should adopt effective corporate governance frameworks and optimise their asset structures to improve overall performance and increase firm value. These strategies should be meticulously crafted to account for the influences of the macroenvironment, incorporating mechanisms to mitigate adverse effects and capitalise on opportunities. The outcomes of this study can serve as valuable insights for the Capital Market Authority in crafting relevant policies and regulations pertaining to capital and liquidity requirements, thereby mitigating the risk of failure.

Furthermore, the study findings can contribute to the development of a proactive survival strategy, fostering long-term positive performance and sustainable growth for listed companies. This research not only aids in managing the risks associated with listed firms, but also expands the existing literature on the subject. Provides an additional layer of knowledge that can be beneficial in shaping comprehensive approaches to corporate governance and asset management in the dynamic business landscape.

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Reference

- Abdullah, Y. A., & Mansor, M. N. B. (2018). The moderating effect of business environment on the relationship between entrepreneurial skills and small business performance in Iraq. *International Journal of Entrepreneurship*, 22(4), 1-11.
- Ariemba, J. M., Mboya, K. J., & Kamau, R. G. (2015). The influence of macro-economic factors on mortgage market growth in Kenya.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Chow, Y. P., Muhammad, J., Bany-Arifin, A. N., & Cheng, F. F. (2019). Macroeconomic uncertainty and corporate capital structure: Evidence from the Asia Pacific region. *Jurnal Ekonomi Malaysia*, 53(2), 99-122. <https://doi.org/10.17576/JEM-2019-5302-8>
- Davis, G. F., & Powell, W. W. (2012). Organization-environment relations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial-organizational psychology* (2nd ed.). Consulting Psychologists Press.
- Dioha, C., Mohammed, N. A., & Okpanachi, J. (2018). Effect of firm characteristics on the profitability of listed consumer goods companies in Nigeria.
- Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, 16(1), 49-64. <https://doi.org/10.1177/031289629101600103>

- Donaldson, L., & Davis, J. H. (1993). The need for theoretical coherence and intellectual rigor in corporate governance research: Reply to critics of Donaldson and Davis. *Australian Journal of Management*, 18(2), 213-223. <https://doi.org/10.1177/031289629301800205>
- Egbunike, F. C., & Okerekeoti, C. U. (2018). Macroeconomic factors, firm characteristics, and financial performance. *Asian Journal of Accounting Research*, 3(2), 142-168. <https://doi.org/10.1108/AJAR-09-2018-0029>
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman Publishing.
- Geske, R., & Roll, R. (1983). The fiscal and monetary linkage between stock returns and inflation. *The Journal of Finance*, 38(1), 1-33. <https://doi.org/10.1111/j.1540-6261.1983.tb03623.x>
- Issah, M., & Antwi, S. (2017). Role of macroeconomic variables on firms' performance: Evidence from the UK. *Cogent Economics & Finance*, 5(1), 1405581. <https://doi.org/10.1080/23322039.2017.1405581>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs, and ownership structure. In *Economics, social institutions* (pp. 163-231). Springer, Dordrecht. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Kanwal, S., & Nadeem, M. (2013). The impact of macroeconomic variables on the profitability of listed commercial banks in Pakistan. *European Journal of Business and Social Sciences*, 2(9), 186-201.
- Lasher, W. R. (2016). *Practical financial management*. Cengage Learning.
- Macharia, M. K., & Otieno, A. (2017). Effect of inflation on unemployment in Kenya. *International Journal of Science and Research*, 6(6), 1980-1984.
- Mawih, A. K. (2014). Effects of asset structure on financial performance: Evidence from the Sultanate of Oman. In 11th EBES Conference proceedings in Ekaterinburg, Russia (147-165).
- Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411-433. <https://doi.org/10.1086/294442>
- Mitnick, B. M. (2006). *Origin of the theory of agency*. Mervice Hall: Pittsburgh.
- Olatunji, T. E., & Adegbite, T. A. (2014). Investment in fixed assets and firm profitability: Empirical evidence from the Nigerian banking sector. *Asian Journal of Social Sciences and Management Studies*, 1(3), 78-82.
- Rao, D. T. (2016). The relationship of macroeconomic factors and financial performance of the five firms listed in the energy and petroleum sector of the NSE (Doctoral dissertation, Strathmore University).
- Sloman, J., & Hinde, K. (2007). *Economics for business*. Prentice Hall, Financial Times.
- Thorbecke, W. (1997). On stock market returns and monetary policy. *Journal of Finance*, 52, 635-656. <https://doi.org/10.2307/2329493>
- Triani, N., & Tarmidi, D. (2019). Firm value: Impact of investment decisions, funding decisions, and dividend policies. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 9(2), 158-163.
- Tucker, I. B. (2007). *Economics for today's world*. Thomson South Eastern.
- Van Khanh, V. T., Hung, D. N., Van, V. T. T., & Huyen, H. T. (2020). A study on the effect of corporate governance and capital structure on firm value in Vietnam. *Accounting*, 221-230. <https://doi.org/10.5267/j.ac.2020.3.004>
- Xu, Z. S., & Xu, N. Z. (2013). The research of the optimal allocation of asset structure and business performance. *Research Journal of Economics, Business, and ICT*, 8(1).