



THE MODERATING ROLE OF THE ECONOMIC ENVIRONMENT IN THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND PERFORMANCE OF FIRM: EVIDENCE FROM FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE, KENYA

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Abstract

The performance of firms listed on the Nairobi Securities Exchange (NSE) is important for economic growth, investor confidence, and capital market stability. However, evidence on the relationship between corporate governance and firm performance remains inconclusive, particularly regarding the role of the economic environment. This study examined the effect of corporate governance on firm performance, the moderating influence of the economic environment, and their joint effect on firm performance. Guided by a positivist philosophy and explanatory research design, the study analyzed panel secondary data from 63 NSE-listed firms covering 2014–2023. Firm performance was measured using Tobin's Q, corporate governance using board size and board independence, and the economic environment using interest and

inflation rates. Panel regression techniques, including pooled ordinary least squares, hierarchical regression, and interaction models, were applied at the 5% significance level. The findings established that corporate governance had a positive and statistically significant effect on firm performance. The economic environment significantly moderated this relationship, and the joint effect of corporate governance and the economic environment on firm performance was also statistically significant. The findings support agency and stewardship theories and demonstrate that governance effectiveness varies with prevailing macroeconomic conditions. The study recommends strengthening governance mechanisms and incorporating macroeconomic risk assessments into strategic decision-making. The study contributes to the literature by integrating corporate governance and macroeconomic conditions in explaining firm performance in an emerging capital market.

Keywords: Corporate Governance; Firm Performance; Economic Environment; Board Independence; Interest Rate; Inflation

INTRODUCTION

Corporate governance is vital in driving firm performance and achieving profit maximization, as it establishes a system that guides firms in accordance with best practices. Similarly, the economic environment in which a firm operates plays a critical role in influencing its performance. Sales, operating costs, and the achievement of strategic objectives are shaped by the broader economic environment and, consequently, affect the overall performance of firms. The motivation for this study lies in the quest to understand the interaction between corporate governance and the economic environment, which play key roles in shaping firm performance (Guluma, 2021).

Resource Dependence Theory, advanced by Pfeffer and Salancik (1978), serves as the anchor theory for this study. The theory provides a basis for examining the moderating effect of the economic environment on performance of firm by focusing on the board's ability to obtain vital resources. Agency Theory also provides a relevant theoretical perspective by explaining how agency costs can diminish the desired effects of corporate governance on firm performance when managers prioritize their individual interests over those of investors (Hafez et al., 2026). Conflicting interests between managers and investors can lead to operational inefficiencies, including increased costs, misallocated resources, and missed investment opportunities, which ultimately erode a firm's competitiveness and profitability (Kwarto et al., 2025). By promoting alignment of resources, firms can improve operational efficiency and achieve better long-term performance (Minikin, 2026).

Firms listed on the Nairobi Securities Exchange (NSE) have faced persistent performance and sustainability challenges associated with weak corporate governance and an increasingly constrained macroeconomic environment (Onguka et al., 2020). These challenges were intensified by the removal of interest rate caps, among other factors, which contributed to higher borrowing costs and an increase in the CBK rate to 12.50% by December 2023. Consequently, the banking sector's non-performing loans ratio reached 14.8% (CBK, 2024). Corporate governance assessments also revealed persistent compliance weaknesses (Kamau, 2023), including the misclassification of board directors as independent non-executives and delays in submitting audited financial statements beyond the statutory four-month deadline (NSE, 2024). Furthermore, the number of listed firms declined from 67 in 2016 to 63 in 2024 (CMA, 2024), while the collapse, delisting, or restructuring of firms such as Uchumi Supermarkets, Mumias Sugar, Kenya Airways, ARM Cement, CMC Holdings, and National Bank of Kenya underscores the consequences of weak governance and prolonged financial distress (Nyatichi et al., 2020).

Corporate Governance

Corporate governance refers to the administration of a firm through the competent and prudent utilization of resources to achieve the company's goals. It encompasses the projection and evaluation of sources of capital, allocation of funds, and management of resources (Liu, 2024). Good corporate governance is essential for companies to function efficiently, reduce risks, establish effective controls, protect against mismanagement, and ensure smooth access to capital, thereby supporting the growth of firms. Corporate governance generally focuses on the optimal utilization of resources, quality of financial statements, adherence to applicable laws and regulations, and safeguarding of company resources (Garzón, 2021).

There is no single measure of corporate governance. While some scholars have developed corporate governance quality indices, other studies have considered individual corporate governance practices, such as foreign ownership, family involvement, CEO duality, executive size, independent auditors, specialized committees, capital structure, and the frequency of board meetings (Dao et al., 2024). In this study, corporate governance was measured using board size and board independence. Board size was measured by the total number of board members, while board independence was measured as the ratio of independent directors to the total number of directors. These measures were selected because of their measurable nature across all firms and their relevance to oversight and firm performance. They have also been widely used in similar studies, including the work of Utama et al. (2020).

Economic Environment

The economic environment comprises the factors and conditions surrounding a firm that influence its decisions, strategies, processes, and overall survival (Nickel et al., 2025). It consists of aspects over which firms have no control, such as interest rates, inflation rates, exchange rates, employment rates, fiscal and monetary policies, trade policies, and tariffs. Economic environment encompasses elements surrounding businesses, including market demand and supply dynamics, government regulations and legal frameworks, foreign investment and capital flows, global economic conditions, wage levels, and labour costs Morales-Urrutia et al. (2025). Environmental opportunities and challenges can be utilized by competitors to gain advantage and push competing firms out of the market. The economic environment also includes uncertainty, economic challenges, and the absence of necessary infrastructure (Hou et al., 2025).

The economic environment significantly influences the relationship between corporate governance and firm performance because firms cannot operate in isolation; rather, they function within an environment that presents both challenges and opportunities (Țigănașu et al., 2025). The economic environment affects sales, the cost of doing business, and the achievement of firm objectives. Therefore, changes in the economic environment can create challenges and opportunities that affect firm performance. A critical aspect of the economic environment is the degree of accountability, transparency, and ethical competition, which can present challenges for firms operating in countries without suitable government regulations and legal frameworks (Utama et al., 2020).

The economic environment can be assessed in various ways. Common measures include interest rates, exchange rates, inflation rates, revenue growth, tax rates, and tariffs. These macroeconomic factors indicate how variations in economic conditions can either enhance or weaken the ability of firms to leverage good corporate governance practices to improve performance (Sabbar et al., 2021). In this study, the economic environment was measured using interest rates and inflation rates. The choice of these measures was motivated by their importance as indicators of economic stability and their significant influence on firms' financial decisions, operating costs, and performance. Similar studies have also used these measures, including the work of Dao et al. (2024).

Performance of Firm

Firm performance encompasses profitability, growth trends, capital base, shareholder returns, customer satisfaction, and stakeholder perceptions and satisfaction. Mansikkamäki (2023) defines firm performance as the efficient use of a firm's funds to maximize revenue and

profits. It is a critical indicator used by numerous stakeholders, including investors, management, suppliers, and other interested parties. Firm performance therefore serves as an important basis for evaluating organizational performance by ensuring that various aspects of a firm's operations are considered, thereby providing a holistic view of its ability to thrive in a competitive environment (Ibrahimov et al., 2025).

Performance is the lifeline of any firm. According to Maher and Andersson (2000), the primary purpose of a firm is to increase the prosperity of its owners through prudent and effective utilization of resources, with profit maximization being a key objective. Financial performance is therefore important for ensuring business continuity, averting bankruptcy, and maintaining shareholder confidence. Most firms endeavor to strengthen their profitability and social image as much as possible. Firm performance can include the number of people employed, turnover, profitability, productivity, innovation, and the period of operation, among other indicators (Zahra et al., 2025).

There are diverse ways of measuring firm performance, including return on sales (ROS) and return on assets (ROA), among others (Younas, 2022). Firm performance can also be assessed using non-financial measures that influence a firm's image in the eyes of the public, such as corporate social responsibility (CSR), actions to protect the environment, social welfare activities, gender equality, regional balance, and work ethics (Bagh et al., 2025). In this study, firm performance is measured using Tobin's Q. This measure was chosen because it combines market value and asset data, thereby providing a reliable indicator of firm performance. Its relevance is further supported by its use in similar studies, such as Bhatia and Kumari (2026).

Firms Listed at Nairobi Securities Exchange

There were 63 firms listed on the Nairobi Securities Exchange (NSE) during the study period, representing diverse sectors, including agriculture, banking, energy and petroleum, telecommunications, and technology. These firms exhibited diverse corporate governance structures, with boards comprising executive and non-executive directors, as well as foreign and women directors, alongside variations in board age and size (Kapkarich & Laiboni, 2026). Between 2014 and 2023, the NSE experienced a net contraction as new listings declined while existing firms exited due to financial distress or acquisition, including KenolKobil in 2019, National Bank of Kenya in 2021, and Kurwitu Ventures in 2023, the latter having been insolvent since its debut (NSE, 2023). By 2020, more than a dozen companies, including Uchumi and Kenya Power, had been flagged by regulators as potential delisting candidates. The absence of major new admissions during the 2022/2023 financial year further signalled waning market appeal (CMA, 2023), while annual equity turnover declined from KSh 175.7 billion to below KSh

100 billion and market capitalization fell by approximately KSh 840 billion between 2021 and 2023 (NSE, 2023). Loan quality also deteriorated in key sectors, with manufacturing bad loans reaching 21.5% by late 2023 and trade-sector delinquencies exceeding KSh 127.5 billion (Nzuki & Njoka, 2021). The decline in investor participation, together with increasing concentration among a few large issuers, further exposed structural weaknesses within the market (Ubul & Kithandi, 2025).

Research Problem

The concept of corporate governance has been linked to firm performance, but the relationship remains complex and contested, particularly in emerging markets such as Kenya. While strong corporate governance is often associated with improved firm performance, instances of poor outcomes even among firms operating in well-regulated markets challenge this assumption. Further complicating this relationship is the economic environment, which presents both risks and opportunities that may influence the ability of firms to translate effective corporate governance practices into improved performance. This interaction between corporate governance, the economic environment, and firm performance remains insufficiently explored, especially in emerging markets, thus necessitating further investigation.

In Kenya, firms listed on the Nairobi Securities Exchange operate under stringent governance regulations enforced by the Capital Markets Authority; yet despite these frameworks, evidence shows persistent failures (Oino & Kithandi, 2025). Express Kenya's accumulated losses reached KSh 606.5 million, Sanlam Kenya posted cumulative losses of KSh 2.28 billion over four years, and Uchumi Supermarkets faces a governance probe over audits delayed for seven years (Nyatichi et al., 2020). In the 2022/2023 fiscal year alone, the CMA imposed fines totaling over Sh8 million on directors and auditors for breaching trading rules, while enforcement-related earnings increased eight-fold to Sh10 million. Investor confidence has eroded sharply, with the NSE's market capitalization falling by 28 percent (KSh777.83 billion) between January and September 2022, driven partly by poor performance of listed firms (Ndirangu & Mwenda, 2025). These quantifiable inconsistencies, financial distress, regulatory penalties, delayed audits, and declining market value underscores the need to explore the relationship between corporate governance, earnings management, economic environment and firm performance.

There are also conflicting theoretical perspectives regarding the relationship between corporate governance and firm performance. Agency Theory challenges the assumptions of Stewardship Theory by suggesting that agency costs arising when managers prioritize personal benefits over those of shareholders can weaken the effect of corporate governance on

organizational performance (Younas, 2022). These conflicting theoretical perspectives necessitate further investigation into the relationship between corporate governance and firm performance and the conditions under which this relationship may vary. The study was guided by the following research question: What is the moderating role of the economic environment in the relationship between corporate governance and firm performance among firms listed on the Nairobi Securities Exchange?

LITERATURE REVIEW

Theoretical Literature

Agency Theory

Agency Theory, developed by Jensen and Meckling (1976), explores the relationship between shareholders and management and provides a framework for understanding corporate governance and firm performance. Firm owners act as principals, while management serves as agents tasked with safeguarding the interests of the principals. However, this relationship is often complicated by the agency problem, which arises when the goals of shareholders and management diverge (Tornikoski et al., 2026). Shareholders are primarily focused on maximizing their wealth, whereas managers may pursue personal benefits that do not directly enhance firm performance. These conflicting interests are at the heart of the agency problem and can compromise the intended benefits of corporate governance in improving firm performance (Setyanto et al., 2024).

Agency Theory posits that agency costs can diminish the desired effects of corporate governance on firm performance when managers prioritize their individual interests over those of investors (Hafez et al., 2026). These conflicting interests can lead to operational inefficiencies, such as increased costs, misallocated resources, and missed investment opportunities, which ultimately erode a firm's competitiveness and profitability (Kwarto et al., 2025). The theory therefore emphasizes the need to address agency costs through effective corporate governance practices that enhance accountability and ensure that managerial actions are aligned with shareholder interests. By promoting such alignment, firms can improve operational efficiency and achieve better long-term performance (Minikin, 2026).

The theory has several weaknesses. It often portrays managers as self-interested individuals, thereby disregarding ethics, loyalty, or social responsibility (Singh, 2025). This conflicts with the views of Donaldson and Davis (1991, 1993), who argue that managers are often stewards of the organization and are naturally inclined to act in the interests of shareholders. Additionally, the theory assumes that all investors prioritize wealth maximization, overlooking the possibility that shareholders may have varied objectives, such as long-term

sustainability or ethical concerns (Helal et al., 2026). Addressing agency problems also requires extensive monitoring mechanisms, which can be costly and may not always be effective (Mbhalati, 2026).

Agency Theory is relevant to this study because it provides a basis for explaining the relationship between corporate governance and firm performance. Specifically, agency costs can weaken the benefits of effective corporate governance on organizational outcomes. The theory therefore advocates enhanced monitoring and oversight to strengthen corporate governance and improve firm performance (Machado & Santos, 2024). This involves identifying elevated agency costs and implementing stronger governance measures, such as appointing more independent board members, fostering greater shareholder activism, and enforcing stricter regulatory oversight (Al-Faryan, 2024). Thus, Agency Theory provides a theoretical basis for examining how corporate governance practices can influence the performance of firms listed on the Nairobi Securities Exchange.

Resource Dependence Theory

Resource Dependence Theory (RDT), proposed by Pfeffer and Salancik (1978), provides a framework for understanding how the economic environment can shape the relationship between corporate governance and firm performance. The theory explains how organizations navigate their interactions with economic entities to obtain vital resources (Karademir, 2025). Firms depend on various external resources and opportunities, including capital, information, and human resources, for their success and growth (Liu et al., 2025). Additionally, organizations operate in unpredictable and dynamic environments where changes can affect the availability and control of resources. This uncertainty compels organizations to adapt and improve their corporate governance practices to enhance overall performance (Gherghina, 2021).

The theory emphasizes the significance of the economic environment in which organizations operate and underscores the necessity for firms to adjust to external pressures and dependencies (Jiang et al., 2023). Understanding how businesses interact with and adapt to their economic environments is crucial because it highlights the importance of both resource acquisition and the strategic management of interdependencies (Öztürk & Bağış, 2025). Consequently, the strategies organizations implement to navigate their economic environments are shaped by the availability of resources and the power dynamics arising from these dependencies (Celtekliligil, 2020). External resources influence organizational behaviour, ultimately affecting corporate governance and firm performance (Lim, 2023).

Resource Dependence Theory has faced criticism for its heavy emphasis on external dependencies and environmental influences, which can overshadow the importance of internal aspects such as organizational culture, structure, and administrative practices (Coşkun & Öztürk, 2024). This perspective contrasts with the observations of Jensen and Meckling (1976), who emphasized the significance of internal factors such as aligning interests and addressing information asymmetry. RDT's focus on external factors may therefore provide an incomplete understanding of organizational dynamics, as it tends to prioritize the role of the board of directors in obtaining vital resources from outside the organization (Jiang et al., 2023).

Resource Dependence Theory is important to this study because it provides a basis for understanding how organizations navigate their economic environments to secure essential resources and maintain competitive advantages (Tang et al., 2026). By understanding the dependencies and power dynamics involved, organizations can devise effective strategies to manage their resource requirements and mitigate uncertainties (Lee et al., 2026). In mitigating the risks associated with external dependencies, firms can adopt various strategies, such as mergers and acquisitions, enhancing board diversity, employing political strategies, and implementing succession planning (Ilhan, 2020). Therefore, RDT provides a theoretical basis for examining the role of the economic environment in shaping the relationship between corporate governance and firm performance.

Empirical Literature

Corporate Governance and Firm Performance

Kijkasiwat (2022) examined the relationship between corporate governance and firm performance using 2,568 companies in Europe and the USA and found that corporate governance has a strong influence on firm performance. The study applied a two-step dynamic panel estimation technique for data analysis. Firm performance was measured using return on assets (ROA), while corporate governance was proxied by board size, measured as the total number of board members, and board independence, measured as the proportion of independent directors to total board members. The study was conducted in developed economies and excluded developing countries, thereby creating a contextual gap. The current study addresses this gap by focusing on firms listed on the Nairobi Securities Exchange in a developing-country context.

Mustafa et al. (2022) conducted a study on corporate governance and firm performance among the top 100 listed companies in Malaysia. Corporate governance was measured using board size, board independence, executive compensation, and CEO duality, while firm performance was proxied by return on equity (ROE). The study employed descriptive analysis

and the Kolmogorov–Smirnov test to assess data distribution and examine relationships among the variables. The results indicated that board independence had a significant positive effect on firm performance. However, the study focused only on top-performing firms, excluding other listed companies. Additionally, it was conducted in Malaysian setting, which may not fully reflect the trend in emerging African markets. The current study addresses these limitations by using a census of all firms listed on the Nairobi Securities Exchange over the 2014–2023 period to provide a broader analysis.

Hermuningsih et al. (2020) examined the influence of corporate governance on firm performance among manufacturing firms listed on the Indonesia Stock Exchange for the period 2014–2016. The study used a sample of 144 firms, of which 110 were included in the final analysis. Corporate governance was measured through the board of commissioners, board of directors, independent commissioners, audit committee, and institutional ownership, while firm performance was proxied by sales, total assets, and equity capital. The study applied generalized linear models (GLM) for estimation. The findings revealed a strong and statistically significant positive relationship between corporate governance and firm performance. However, the study was limited to single industry, also a time-period gap resulting from its short three-year coverage. The current study addresses these limitations by examining firms across all sectors using a 10-year census-based panel dataset covering 2014–2023 of the NSE listed firms.

Gošnik et al. (2023) examined variables among 3,007 SMEs in Slovenia. The findings showed that SMEs with better performance also had good corporate governance practices in place. Data were collected from a sample of 163 SMEs using secondary sources. Financial indicators used to measure firm performance included return on assets (ROA), economic value added (EVA), and return on equity (ROE), while credit rating (CR) was used as a non-financial measure. The data were analysed using structural equation modelling (SEM). However, the study was limited to SMEs and did not include listed companies, creating a contextual gap. This warrants further study of listed firms to determine whether the findings vary in the context of firms listed on the Nairobi Securities Exchange.

Corporate Governance, Economic Environment and Firm Performance

Muthoka and Omar (2026) investigated the relationship among corporate governance, the external environment, and firm performance in Uganda's financial sector. The study adopted a narrative literature review approach and was grounded in Agency Theory, Resource Dependence Theory, and the Resource-Based View Theory. The findings suggested that external environmental factors have a substantial strategic role in influencing organizational performance outcomes. However, the study presents a methodological gap because it relied on

a narrative review rather than empirical testing using quantitative data. The current study addresses these gaps by empirically investigating the relationship between corporate governance, the economic environment, and firm performance using panel data from a census of firms listed on the Nairobi Securities Exchange between 2014 and 2023.

Habakkuk et al. (2023) examined the moderating influence of the economic environment among firms listed on the Nairobi Securities Exchange using secondary data covering the period from 2010 to 2019. The study employed multiple linear regression analysis to assess the interaction among the study variables. The findings showed that the economic environment did not significantly moderate the relationship between corporate governance, asset structure, and firm performance. The study used data covering 2010–2019, which may not reflect more recent market conditions. The current study addresses these gaps by using updated panel data from a census of firms listed on the Nairobi Securities Exchange covering the 2014–2023 period.

Muturi and Kalui (2022) studied the interaction among the variables among firms listed on the Nairobi Securities Exchange using a census approach covering 55 firms with complete data over the period 2011–2017. The study used data obtained from KNBS and CBK. The findings indicated that corporate governance and the economic environment exerted a significant positive influence on firm performance, while the economic environment also demonstrated a significant negative effect in some relationships. However, the study presents a time-period gap due to the use of relatively old panel data covering 2011–2017, limiting its relevance to current market conditions. Additionally, there could be potential changes in Kenya's economic and regulatory environment since the study period. The current study addresses these gaps by using updated census-based panel data covering 2014–2023 to examine the relationship between corporate governance, the economic environment, and firm performance across firms listed on the Nairobi Securities Exchange.

Sabbar et al. (2021) examined the relationship between firm performance and effective corporate governance in Iraq using secondary data from listed firms and an analytical research design. The study showed that corporate governance structures significantly influenced firm performance, with board independence positively affecting financial outcomes measured by ROA and ROE. Conversely, larger board sizes were associated with weaker firm performance, suggesting inefficiencies in coordination and decision-making. However, the study context was characterized by post-conflict institutional instability, which may affect data reliability and governance enforcement mechanisms. This limits the generalizability of the findings to other capital markets. The current study addresses this contextual gap by focusing on firms listed on the Nairobi Securities Exchange using census-based panel data covering 2014–2023.

Conceptual Framework

Figure 1 presents the conceptual framework illustrating the relationship between corporate governance and firm performance and the moderating role of the economic environment. In this framework, corporate governance is the independent variable, while firm performance is the dependent variable, measured using Tobin's Q (Gherghina, 2021). The economic environment is the moderating variable and is included to assess whether it influences the relationship between corporate governance and firm performance. Corporate governance is proxied by board size and board independence. Board size is measured by the total number of board members, while board independence is measured as the ratio of independent directors to the total number of directors. The economic environment is measured using interest rates and inflation rates, while firm performance is measured using Tobin's Q. The conceptual framework therefore illustrates the expected relationship between corporate governance and firm performance and the moderating role of the economic environment in this relationship.

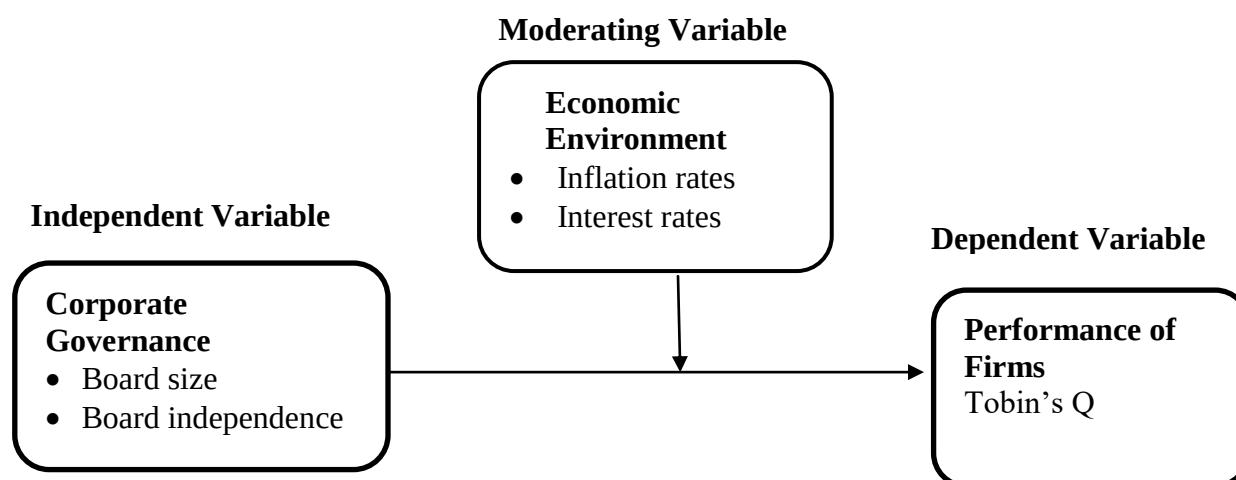


Figure 1: Conceptual Model

RESEARCH METHODOLOGY

This study adopted a positivist research philosophy and a descriptive-correlational research design within a quantitative research approach. Positivism is grounded in the premise that reality exists independently of human perception and can be objectively observed, measured, and quantified through empirical evidence and systematic scientific methods (Lim, 2023). The descriptive component facilitated the systematic presentation of the characteristics of the study variables, while the correlational component focused on examining the statistical relationships between corporate governance, the economic environment, and firm performance.

The design was appropriate for testing the study hypotheses and examining the strength and direction of relationships among the variables. The panel nature of the data further enabled the study to capture both cross-sectional and temporal variations. Panel regression models and diagnostic tests were applied to analyse the data, validate the results, and enhance the reliability of the findings (Ayinde et al., 2015).

The study focused on 63 firms listed on the Nairobi Securities Exchange (NSE) with complete financial and governance records for the ten-year period 2014–2023. The selected study period is noteworthy because it captures significant structural reorganizations within the NSE and the implementation of key corporate governance policies and regulatory reforms. Additionally, the period was characterized by substantial fluctuations in NSE market capitalization and instances in which listed firms faced governance challenges and external economic pressures. The study relied exclusively on secondary data obtained from reputable and verifiable sources. Corporate governance data, comprising board size and board independence, were obtained from firms' published annual reports and audited financial statements available through the NSE and Capital Markets Authority (CMA) databases. Financial data required for measuring firm performance were obtained from audited financial statements and NSE records, while market capitalization and share price data used in computing Tobin's Q were sourced from the NSE database and supplemented with firm-level financial reports. Macroeconomic data on interest rates and inflation rates were obtained from the Central Bank of Kenya's annual reports and statistical bulletins. Data collection followed a systematic multi-source retrieval process, with all information compiled into a structured database and uniformly formatted for analysis. A structured data collection sheet was used to organize and code the data consistently across firms and years. The use of secondary data was appropriate because it provided readily available information and supported longitudinal analysis, consistent with Gherghina (2021).

FINDINGS AND DISCUSSIONS

Descriptive Statistics

Table 1: Descriptive Statistics

Variable	Indicator	N	Mean	Std. Dev.	CV (%)	Skewness	Kurtosis
Corporate Governance	Board Size	587	8.540	2.516	29.47	0.21	2.89
	Board Independence	587	0.783	0.433	55.29	0.63	3.12

Variable	Indicator	N	Mean	Std. Dev.	CV (%)	Skewness	Kurtosis
Economic Environment	Composite CG Score	587	4.662	1.475	31.63	0.18	2.94
	Inflation Rate	587	6.455	1.067	16.53	0.09	2.78
	Lending Rate	587	13.971	1.772	12.68	-0.14	2.85
Firm Performance	Tobin Q	587	1.607	0.078	4.83	-0.11	2.97

The results indicate that, on average, firms had a board size of 8.54 members (SD = 2.52, CV = 29.47%), indicating moderate variation in board size across the firms. Board independence had a mean of 0.78, indicating that independent directors constituted approximately 78.3% of board membership. The relatively high coefficient of variation of 55.29% indicates considerable variation in board independence across the listed firms. Regarding the economic environment, the average inflation rate was 6.46% (SD = 1.07, CV = 16.53%), while the average lending rate was 13.97% (SD = 1.77, CV = 12.68%). The relatively low coefficients of variation indicate limited variation in these economic environment indicators across the study observations. Nevertheless, variations in inflation and lending rates represent differences in the economic conditions within which the listed firms operated during the study period. In terms of firm performance, the mean Tobin's Q was 1.61 (SD = 0.08, CV = 4.83%). The mean indicates the level of firm valuation represented by Tobin's Q across the study observations. The relatively low coefficient of variation suggests that Tobin's Q exhibited limited variation among the firms and across the study period.

Overall, the descriptive statistics indicate greater variation in corporate governance measures, particularly board independence, compared with the economic environment indicators and firm performance. These results provide an initial description of the characteristics of the study variables and provide a basis for further examination of the relationship between corporate governance and firm performance and the moderating role of the economic environment.

Overview of Trend Analysis

Trend analysis was employed to examine longitudinal shifts and directional movements in the key study variables over the ten-year period from 2014 to 2023. Evaluating these temporal patterns provides insights into the evolution of the variables, highlighting notable changes, patterns, fluctuations, and turning points over the study period. This analysis provides

a basis for understanding the observed trends among corporate governance, the economic environment, and firm performance.

Trends in Corporate Governance

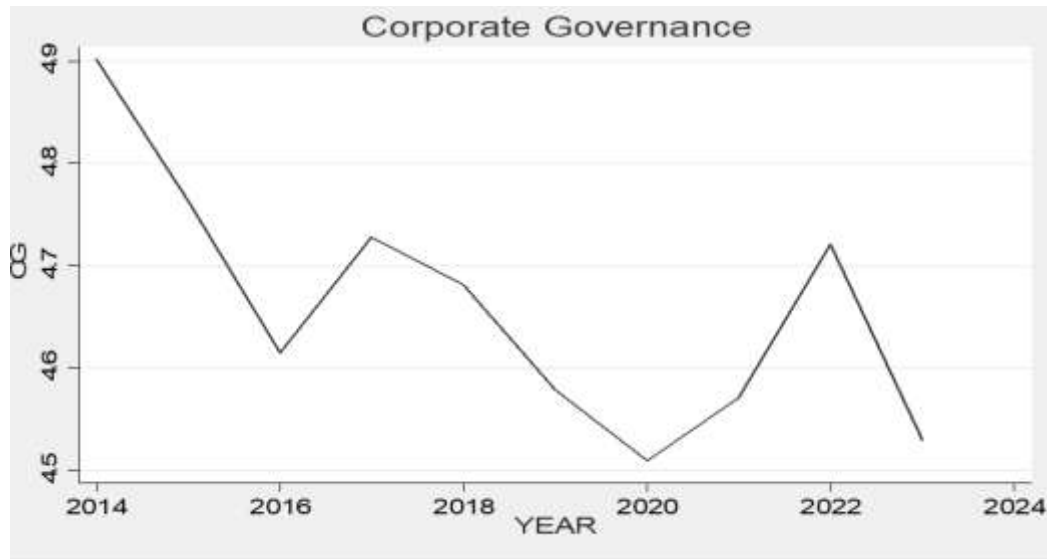


Figure 2: Trend in Corporate Governance Practices among Firms Listed at the Nairobi Securities Exchange

The corporate governance score declined from 4.9 in 2014 to 4.5 in 2020, after falling from 4.8 in 2015, indicating a weakening in governance practices. The strong 2014 score could be attributed to the initial implementation of enhanced CMA governance codes and increased awareness of board independence and optimal board size, while the subsequent decline may reflect challenges in sustaining independent board structures or compliance enforcement. The 2020 decline coincided with the emergence of COVID-19, which may have disrupted board operations, reduced board engagement, and delayed governance reviews as firms focused on crisis management and operational continuity. The score then improved to 4.6 in 2021 and 4.7 in 2022, possibly reflecting a regulatory rebound, renewed focus on board reforms, increased investor and regulatory scrutiny, and responses to revised CMA guidelines, before declining again to 4.5 in 2023, suggesting that the improvements were not sustained due to variations in firm-level commitment, compliance costs, and enforcement gaps. Overall, the trend was non-linear, highlighting continuing challenges in institutionalizing sound governance practices among NSE-listed firms.

Trends in Interest Rates

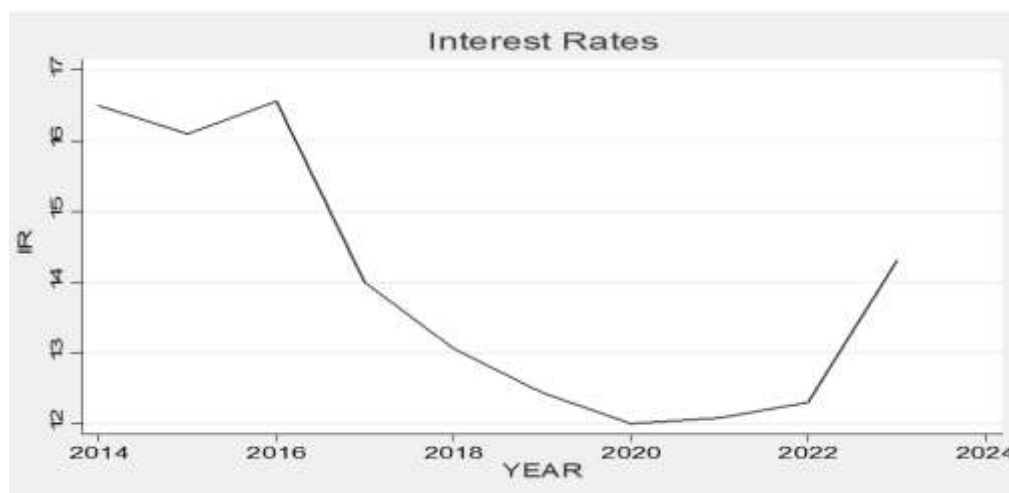


Figure 3: Trend in Interest Rates among Firms Listed at the Nairobi Securities Exchange

The interest rate declined slightly from 16.5% in 2014 to 16.1% in 2015, before rising marginally to 16.56% in 2016, reflecting the Central Bank's tight monetary stance aimed at containing inflationary pressures and maintaining currency stability. It then fell sharply to 14% in 2017 following the implementation of interest rate capping legislation, and continued declining to 12.0% in 2020, partly due to the sustained impact of the caps and accommodative monetary policies, with COVID-19 further necessitating monetary easing to cushion the economy. Rates recovered slightly to 12.08% in 2021 and 12.3% in 2022, suggesting cautious monetary tightening in response to inflationary pressures and global economic realignments, before rising markedly to 14.3% in 2023, associated with the reversal of the interest rate cap in 2019 and efforts to anchor inflation expectations, attract investment, and stabilize the exchange rate. Overall, the trend reflects Kenya's dynamic macroeconomic environment shaped by monetary policy, legal reforms, and domestic and international shocks.

Trends in Inflation Rates

The inflation rate declined from 6.88% in 2014 to 6.26% in 2016, indicating a relatively stable inflationary environment, before rising sharply to 8.01% in 2017, mainly due to adverse weather conditions, food shortages, and election-related uncertainties. It then fell to 4.69% in 2018, the lowest rate during the period, supported by favorable weather, improved food supply, easing political tensions, and policy interventions, before increasing moderately to 5.24% in 2019 and 5.41% in 2020 amid global economic slowdown and fiscal pressures. Inflation rose

further to 6.11% in 2021 due to COVID-19-related supply chain disruptions and increased production costs, reaching 7.65% in 2022 and 7.68% in 2023, driven mainly by global inflationary pressures, rising energy and fuel costs, depreciation of the Kenyan shilling, the Russia–Ukraine war, and post-pandemic recovery imbalances. Overall, inflation averaged approximately 6.25%, with a standard deviation of 1.10%, indicating moderate variability and reflecting the influence of both internal and external shocks.

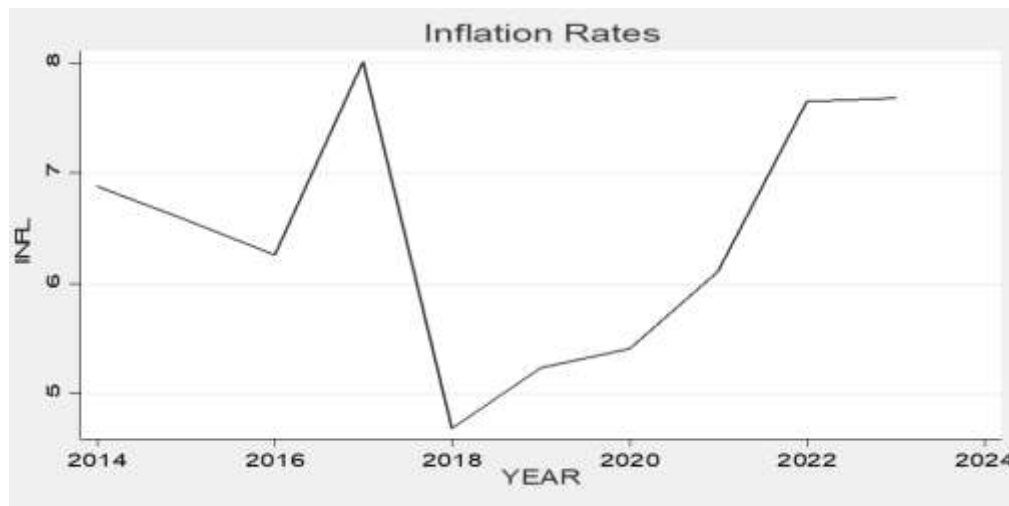


Figure 4: Trend in Inflation Rates among Firms Listed at the Nairobi Securities Exchange

Trends in Firm Performance

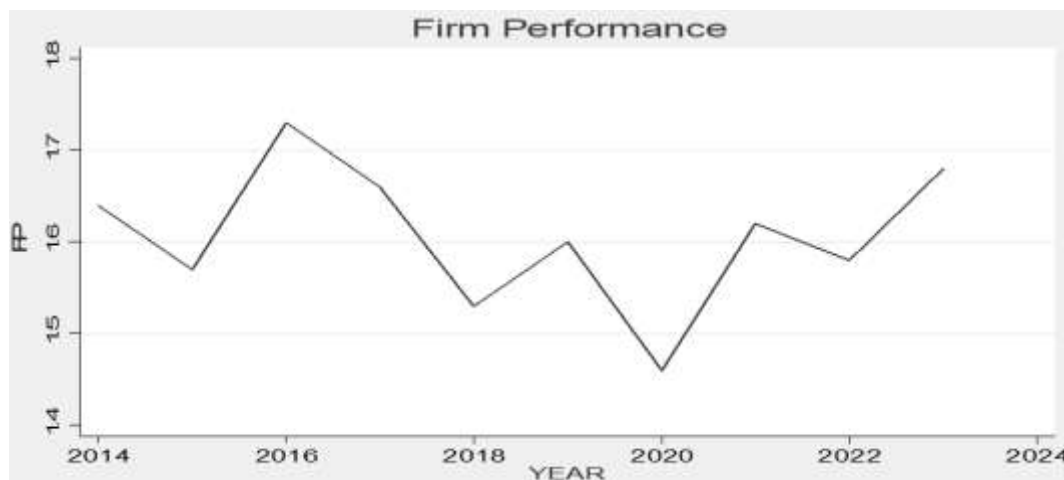


Figure 5: Trend in Firm performance among Firms Listed at the Nairobi Securities Exchange

The average Tobin's Q fluctuated throughout 2014–2023, reflecting changes in firm valuation relative to the replacement cost of assets. It declined slightly from 1.64 in 2014 to 1.57

in 2015, before rising to a decade-high of 1.73 in 2016, likely reflecting improved earnings expectations, favorable macroeconomic indicators, and enhanced operational efficiency. Tobin's Q subsequently declined to 1.66 in 2017 and 1.53 in 2018, potentially due to investor caution arising from governance concerns, increased competition, and unfavorable regulatory and economic shifts, before recovering to 1.60 in 2019 following strategic repositioning and operational improvements. The ratio then fell to the decade-low of 1.46 in 2020, coinciding with COVID-19-related economic disturbances affecting supply chains, consumer demand, and investment activity. It recovered to 1.62 in 2021, supported by gradual economic reopening, digital adaptation, and firm resilience measures, before declining slightly to 1.58 in 2022 amid global inflationary pressures, rising interest rates, and persistent supply chain challenges. Finally, Tobin's Q increased to 1.68 in 2023, signaling renewed investor confidence in firms' strategic direction, market positioning, and long-term profitability prospects. Overall, the fluctuations highlight the sensitivity of firm performance to internal managerial strategies and changes in the broader economic environment.

Correlation Analysis

Table 2: Pearson Correlation Matrix of Study Variables

Variable	CG	EM	Infl. R	Int. R	FP
CG	1.0000				
Infl. R	-0.0339	-0.0125	1.0000		
Int. R	0.5270*	0.4020*	0.5981*	1.0000	
FP	0.8062*	0.8039*	-0.0284	0.5104*	1.0000

Note. CG = Corporate Governance; EM = Earnings Management;
Infl. R = Inflation Rate; Int. R = Interest Rate; FP = Firm Performance.

*Correlation is significant at the 0.05 level

The Pearson correlation results indicate that corporate governance (CG) was positively and significantly correlated with firm performance (FP) ($r = 0.8062$, $p < 0.05$) and interest rates ($r = 0.5270$, $p < 0.05$). Inflation rate was not significantly correlated with CG ($r = -0.0339$) or FP ($r = -0.0284$), but was positively and significantly correlated with interest rates ($r = 0.5981$, $p < 0.05$). Interest rates were also positively and significantly correlated with firm performance ($r = 0.5104$, $p < 0.05$). Overall, none of the correlation coefficients exceeded the 0.85 threshold

indicating that serious multicollinearity was unlikely and supporting the inclusion of the study variables in the subsequent regression analyses.

CONCLUDING REMARKS

Summary of Findings

The results showed that corporate governance had a positive and statistically significant relationship with firm performance, indicating that stronger governance mechanisms enhance firm performance. The study further found that the economic environment, operationalized through interest rates and inflation rates, significantly moderated the relationship between corporate governance and firm performance, indicating that macroeconomic conditions influence the extent to which governance affects firm value. The joint effect of corporate governance and the economic environment on firm performance was also significant, emphasizing that the interaction between internal governance structures and external economic conditions provides a more comprehensive understanding of firm performance among firms listed at the NSE.

Conclusions of the Study

The results provide evidence that corporate governance is a fundamental driver of firm performance among companies listed at the NSE. The positive and statistically significant relationship between governance quality, measured through board size and board independence, and Tobin's Q demonstrates the importance of well-structured governance mechanisms in enhancing firm value. Furthermore, the significant moderating role of the economic environment, specifically interest rates and inflation rates, demonstrates that the effectiveness of corporate governance in enhancing firm performance is contingent upon prevailing macroeconomic conditions. Thus, the influence of corporate governance on firm performance is not static but varies with changes in the broader economic environment.

Recommendations of the Study

The findings provide several actionable insights for managers and corporate leaders of firms listed at the NSE. Given that interest rates and inflation rates significantly moderate the corporate governance and firm performance relationship, firms should adopt dynamic strategic planning that incorporates macroeconomic foresight. Senior management and strategy units should integrate macroeconomic indicators into governance frameworks and performance evaluation processes to enable firms to anticipate and respond to changing economic conditions. Moreover, the significant joint effect of corporate governance and the economic

environment on firm performance highlights the need for an integrated approach in which boards and executive leadership align governance practices with continuous monitoring of macroeconomic conditions. Such an approach can support informed decision-making, strengthen governance effectiveness, and enhance firm performance under changing economic conditions.

Areas for Further Studies

Although this study provides evidence on the moderating role of the economic environment in the relationship between corporate governance and firm performance among firms listed on the Nairobi Securities Exchange, its scope provides opportunities for further research. Future studies could extend the study period beyond 2023 to examine whether the observed relationships persist under more recent economic and institutional conditions. Further research could also incorporate additional dimensions of the economic environment, such as exchange rates, fiscal conditions, or other relevant macroeconomic indicators. In addition, future studies could examine other corporate governance mechanisms, including board diversity, ownership structure, and board characteristics, and consider alternative measures of firm performance alongside Tobin's Q. Finally, extending the analysis to non-listed firms, other sectors, or comparable capital markets could provide evidence on the extent to which the findings apply across different institutional and organizational contexts.

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