FIRM SPECIFIC FACTORS AND FINANCIAL PERFORMANCE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE: THE MODERATING ROLE OF MACROECONOMIC FACTORS

LILIAN ADHIAMBO RACHUONYO

13/03031

MASTER OF SCIENCE IN COMMERCE (FINANCE & INVESTMENT)

KCA UNIVERSITY

2026

FIRM SPECIFIC FACTORS AND FINANCIAL PERFORMANCE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE: THE MODERATING ROLE OF MACROECONOMIC FACTORS

LILIAN ADHIAMBO RACHUONYO

13/03031

A DISSERTATION SUBMITTED TO THE SCHOOL OF BUSINESS IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE IN COMMERCE (FINANCE & INVESTMENT) AT KCA UNIVERSITY

APRIL 2026

DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no materials written or published by other people except where due reference is made and author duly acknowledged

Student Name: Lilian Adhiambo Rachuonyo **Reg, No**: 13/03031

Signature.....  .....Date: 24/04/2026

I do hereby confirm that I have examined the master's dissertation of

Lilian Adhiambo Rachuonyo

And I have certified that all revisions that the dissertation panel and examiners recommended has been adequately addressed.

Signature..... ..... Date.....

Supervisor: Prof Christine Simiyu

KCA University Kenya

ABSTRACT

This paper explored the predictors of financial performance among Nairobi Securities Exchange (NSE) listed firms with a special emphasis on the interaction between firm-specific institutional characteristics and the moderating effect of the respective industries. Given the dynamism of the Kenyan capital markets, the study integrated both financial and non-financial variables, including ownership structure and corporate governance systems, to enable a comprehensive analysis of performance. The research design was quantitative and utilized a balanced panel dataset of 62 companies. Panel regression models were employed to estimate the relationships through quantitative analysis. The theoretical foundation was grounded in Agency Theory, Resource-Based View, and Institutional Theory, all situated within an emerging market context. The study found that ownership structure, corporate governance, firm characteristics, and macroeconomic conditions collectively influence the financial performance of firms listed on the Nairobi Securities Exchange (NSE). Concentrated and institutional ownership improve performance through stronger monitoring and accountability, while excessive managerial ownership hinders it. Effective corporate governance, especially independent boards and audit committees enhance transparency and profitability, though board size has minimal impact. Larger, liquid firms outperform smaller or highly leveraged ones, underscoring the importance of prudent financial management. Although macroeconomic factors alone were insignificant, stable economic conditions amplified the positive effects of ownership concentration and good governance on firm performance.

DEDICATION

It is an honor to devote the success of this work to my family more so my late mother due to unwavering and resourceful support, to my friends for their encouragement and engagement, and supervisor for her candid yet professional guidance. The accomplishment of this project is a testament to the power of collaboration, perseverance, and the pursuit of knowledge. It is my hope that this study will not only impact but also inspire future scholars, practitioners, and stakeholders to build upon its findings and continue advancing the field. To every individual whose belief, insights, and inspiration sustained me, this work is devoted to with the hope that it will ignite lasting positive change.

ACKNOWLEDGEMENT

It is my pleasure to submit to all the people who have in one way or another assisted me in completing this thesis. Firstly, I wish to thank my supervisor and the fact that she has provided me with professional guidance, positive feedback, and relentless encouragement at all points of this research. I also owe a debt of gratitude to the faculty and staff of my department who have been very instrumental in giving me invaluable resources and a conducive learning environment. As a faithful person, I would like to offer a deep sense of humility and thanksgiving to the Almighty because of his mercy and profuseness in life and health, knowledge and resources, and peace of mind. I also appreciate the fellow scholars in the research who made significant contributions to the quality of this research work through their contributions and research. I would like to thank my peers and colleagues with my heartfelt gratitude because of the stimulating discussions, suggestions, and moral support they showed me during difficult times. Lastly, I would like to give special credit and appreciation to my family and friends, who supported and believed in me and whose support helped me stay motivated. To everyone who helped, both directly, and in other ways, I wish to offer my deepest gratitude and goodwill since you have helped in making this piece of work come true.

TABLE OF CONTENTS

ABSTRACT ..... **iii**

DEDICATION ..... **iv**

ACKNOWLEDGEMENT ..... **v**

TABLE OF CONTENTS ..... **vi**

LIST OF TABLES ..... **x**

LIST OF FIGURES ..... **xi**

LIST OF APPENDICES ..... **xii**

ABBREVIATIONS AND ACCRONYMS ..... **xiii**

OPERATIONAL DEFINITION OF TERMS ..... **xiv**

CHAPTER ONE **1**

INTRODUCTION **1**

1.1 Background of the Study 1

1.1.1 Firm Specific and Institutional Factors 3

1.1.2 Financial Performance 5

1.1.3 Nairobi Securities Exchange (NSE) 6

1.2 Statement of the Problem 7

1.3 Research Objectives 10

1.3.1 General Objective 10

1.3.2 Specific Objectives 10

1.4 Research Questions 10

1.5 Scope and Limitations of the Study 11

1.6 Research Gap 12

1.7 Significance of the Study 13

CHAPTER TWO **14**

LITERATURE REVIEW **14**

2.0 Introduction 14
2.1 Theoretical Framework 14
2.2.1 Agency Theory 15
2.2.2 Resource-Based View (RBV) 16
2.2.3 Stakeholder Theory 16
2.3 Empirical Literature Review 17
2.3.1 Ownership Structure and Financial Performance 18
2.3.2 Corporate Governance and Financial Performance 20
2.3.3 Firm-Specific Characteristics and Financial Performance 22
2.3.4 Moderating Role of Firm Sector and Financial Performance 25
2.4 Knowledge Gaps 28
2.5 Conceptual Framework 33
Financial Performance 33
Macroeconomic factors 33
2.6 Operationalization of Variables 34
CHAPTER THREE 36
RESEARCH METHODOLOGY 36
3.1 Introduction 36
3.2 Research Design 36
3.3 Population of the Study 37
3.4 Sample Size and Sampling Procedure 37
3.5 Instrumentation 38
3.5.1 Validity of Instrument 39
3.5.2 Reliability of Instrument 40
3.6 Data Collection Method 41

3.7 Data Analysis 42
3.8 Diagnostic Tests 46
3.9 Ethical Considerations 46
CHAPTER FOUR 48
RESULTS AND FINDINGS 48
4.1 Introduction 48
4.1 Diagnostic Analysis 48
4.2 Exploratory Data Analysis 50
4.2.1 Growth Plot of Each Firm 50
4.2.2 Overlain Plot of Each Firm 52
4.2.3 Correlation Matrix of Study Variables 54
4.3 Descriptive Statistics of Variables 57
4.4 Panel Data Analysis 60
4.4.1 Ownership Structure and Financial Performance of NSE-Listed Firms 60
4.4.2 Corporate Governance and Financial Performance of NSE-Listed Firms 63
4.4.3 Firm Characteristics and Financial Performance of NSE-Listed Firms 66
4.4.4 Moderating Role of Macroeconomic Factors and Financial Performance of NSE-Listed Firms 68
CHAPTER FIVE 73
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 73
5.1 Introduction 73
5.2 Summary of the Study 73
5.2.1 Effect of Ownership Structure on Financial Performance of NSE-Listed Firms 73
5.2.2 Effect of Corporate Governance on Financial Performance of NSE-Listed Firms 75
5.2.3 Effect of Firm-Specific Characteristics on Financial Performance of NSE-Listed Firms 78

5.2.4 The Moderating Role of Macroeconomic Factors on Financial Performance 81
5.3 Recommendations of the Study 83
5.4 Areas for Further Research 85
5.5 Limitations of the Study 87
REFERENCES 88
APPENDICES 95

LIST OF TABLES

TABLE 1: Knowledge Gaps 28

TABLE 2: Operationalization of Variables 34

TABLE 3: Correlation Matrix of Study Variables 55

TABLE 4: Descriptive Statistics of Variables 57

TABLE 5: Ownership Structure and Financial Performance 61

TABLE 6: Corporate Governance and Financial Performance 63

TABLE 7: Firm Characteristics and Financial Performance 66

TABLE 8: Moderating Role of Macroeconomic Factors and Financial Performance 68

TABLE 9: Panel Data Diagnostic Tests for NSE-Listed Firms 48

LIST OF FIGURES

FIGURE 1: Conceptual Framework..... 33

FIGURE 2: Growth Plot of Each Firm 51

FIGURE 3: Overlain Plot of Each Firm..... 53

LIST OF APPENDICES

Appendix I: Data Extraction Sheet 95

Appendix II: Firms Listed in NSE 99

Appendix III: To Whom It May Concern Letter 101

Appendix IV: NACOSTI Letter 102

Appendix V: KCA University Scientific & Ethics Review Committee Letter 103

Appendix VI: NACOSTI License 104

ABBREVIATIONS AND ACCRONYMS

CMA: Capital Markets Authority

EPS: Earnings per Share

ESG: Environmental, Social, and Governance

FGLS: Feasible Generalized Least Squares

GCC: Gulf Cooperation Council

GEMS: Growth Enterprise Market Segment

IFRS: International Financial Reporting Standards

IV: Independent Variable

JSE: Johannesburg Stock Exchange

NSE: Nairobi Securities Exchange

PLS-SEM: Partial Least Squares Structural Equation Modeling

REIT: Real Estate Investment Trust

ROA: Return on Assets

ROE: Return on Equity

SOEs: State-Owned Enterprises

VRIN: Valuable, Rare, Inimitable, Non-substitutable

OPERATIONAL DEFINITION OF TERMS

Corporate Governance	The system of rules by which a firm is directed and controlled. Operationally, it is measured by indicators such as board size, the percentage of independent non-executive directors, board gender diversity, and audit committee independence (Aluoch et al., 2020).
Financial Performance	The degree to which a firm achieves its financial objectives. Operationally, it is measured by accounting-based ratios including Return on Assets (ROA), and Earnings per Share (EPS) Brigham & Houston, 2019).
Firm-Specific Characteristics	The internal, controllable attributes of a firm that influence its operations and outcomes. For this study, these are operationalized as firm size (log of total assets), leverage ratio (total debt to equity), liquidity ratio (current assets to current liabilities), and investment intensity (capital expenditure to total assets) (Bobenič-Hintošová et al., 2020).
Nairobi Securities Exchange (NSE)	Kenya's principal stock exchange, which serves as the platform for trading equity and debt instruments for publicly listed companies. It is the

	source of the population and data for this study (NSE, 2024).
Ownership Structure	The distribution of equity among different types of shareholders within a firm. Operationally, it is defined and measured by ownership concentration (% held by top 5 shareholders), institutional ownership, managerial ownership, and foreign ownership (Kirimi, Kariuki, & Ocharo, 2022).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Financial performance remains a central concern for investors, managers, policymakers, and scholars because it reflects a firm's ability to generate value and sustain operations in competitive environments. It is commonly conceptualized as the outcome of strategic decisions, governance structures, and internal resource utilization. According to Brigham and Ehrhardt (2017), financial performance reflects a firm's capacity to create shareholder value and ensure long-term sustainability. Gitman and Zutter (2015) further define financial performance as a measure of efficiency in utilizing assets, liabilities, and equity. Globally, financial performance is assessed using indicators such as Return on Assets (ROA), and Earnings per Share (EPS), which capture profitability and operational efficiency.

Theoretical perspectives provide a foundation for understanding the determinants of financial performance. Agency theory argues that ownership structure and governance mechanisms help reduce conflicts between managers and shareholders, thereby improving firm outcomes (Jensen & Meckling, 1976). The Resource-Based View (RBV) emphasizes that firm-specific resources such as size, capabilities, and innovation are critical drivers of competitive advantage and performance (Barney, 1991). Institutional theory further suggests external factors such as regulatory frameworks and macroeconomic stability shape firm behavior and performance outcomes (DiMaggio & Powell, 1983). These theoretical perspectives collectively highlight that both internal and external factors are essential in explaining financial performance.

In emerging economies, financial performance is often constrained by structural and institutional challenges. Weak capital markets and governance inefficiencies limit firms' ability to access resources and operate efficiently (Muriithi & Waweru, 2017). Macroeconomic instability further exacerbates these challenges by increasing uncertainty and operational risks for firms (Muriithi & Waweru, 2017). Studies in African markets emphasize that firm-level factors such as liquidity significantly influence performance (Adegbie & Adeniran, 2020). Similarly, leverage has been identified as a critical determinant of profitability in developing markets (Ntim, 2016). These findings indicate that firm performance in emerging economies is shaped by a combination of internal financial decisions and external institutional conditions.

Within East Africa, firm performance varies significantly across sectors due to differences in regulatory environments and exposure to external shocks. Financial institutions tend to perform better due to strong regulatory frameworks and stable demand for financial services (Muriithi & Waweru, 2017). In contrast, manufacturing and agricultural firms are more vulnerable to macroeconomic fluctuations and global market volatility (World Bank, 2022). These variations highlight the importance of contextual factors in shaping firm performance within the region.

In Kenya, firms listed on the Nairobi Securities Exchange (NSE) operate in a dynamic and evolving market environment. Between 2020 and 2024, the NSE experienced mixed performance trends characterized by post-pandemic recovery and fluctuating market returns (Capital Markets Authority, 2024). The market also witnessed several delistings of financially distressed firms, reflecting persistent governance and financial management challenges (Capital Markets Authority, 2024). Sectoral performance has remained uneven,

with banking and telecommunications sectors demonstrating relative resilience compared to manufacturing and retail sectors (World Bank, 2022). Additionally, macroeconomic pressures such as inflation, currency depreciation, and rising interest rates have continued to affect firm profitability and sustainability (Central Bank of Kenya, 2023).

Despite ongoing regulatory reforms aimed at strengthening corporate governance and financial reporting, inconsistencies in firm performance persist across NSE-listed firms. Ownership structure has been identified as a key determinant of firm performance due to its role in monitoring and control (Mabeya & Kariuki, 2019). Corporate governance mechanisms also influence transparency and accountability within firms (Aluoch, 2020). Liquidity has been shown to affect a firm's ability to meet short-term obligations and sustain operations (Muriithi & Waweru, 2017). Similarly, leverage influences financial risk and profitability (Muriithi & Waweru, 2017). However, most existing studies examine these factors independently, limiting a comprehensive understanding of their combined effects.

Therefore, this study is anchored on the need to provide an integrated analysis of firm-specific factors and financial performance among NSE-listed firms while incorporating the moderating role of macroeconomic conditions. By linking global theoretical perspectives with regional and local realities, the study establishes a strong contextual foundation that directly informs the research problem.

1.1.1 Firm Specific and Institutional Factors

Firm-specific factors refer to internal attributes that influence a firm's performance and strategic outcomes. These include ownership structure, corporate governance mechanisms, firm size, leverage, liquidity, and investment intensity. These factors determine how

resources are allocated and managed within a firm, ultimately influencing profitability and competitiveness.

Ownership structure plays a critical role in shaping firm performance through its influence on monitoring and control mechanisms. Concentrated ownership is argued to enhance oversight and reduce agency conflicts (La Porta et al., 1999). However, excessive concentration may also lead to dominance by controlling shareholders, which can negatively affect minority interests (La Porta et al., 1999). Corporate governance structures, including board independence, are expected to improve accountability and decision-making processes within firms (Adams & Ferreira, 2009). Board diversity is also associated with improved strategic outcomes and innovation (Yoshikawa & Rasheed, 2009).

Firm characteristics such as size, leverage, and liquidity further influence financial performance. Larger firms tend to benefit from economies of scale and better access to financial resources (Titman & Wessels, 1988). High leverage increases financial risk and may negatively affect profitability, especially during economic downturns (Myers, 2001). Liquidity reflects a firm's ability to meet short-term obligations and maintain operational stability (Brealey et al., 2018). These factors collectively shape a firm's financial resilience and capacity to generate returns.

In African markets, firm-specific factors are particularly important due to institutional challenges and governance weaknesses. Weak regulatory enforcement increases reliance on internal governance mechanisms to drive performance (Kyereboah-Coleman, 2007). In Kenya, variations in ownership structures and governance practices contribute to differences in performance among NSE-listed firms (Ngugi & Nasieku, 2021). These dynamics highlight the importance of analyzing firm-specific factors within the Kenyan context.

1.1.2 Financial Performance

Financial performance refers to the extent to which a firm achieves its financial objectives in terms of profitability, efficiency, and value creation. It is measured using accounting-based indicators such as ROA, ROE, and EPS, as well as market-based measures such as share price and market capitalization (Brigham & Houston, 2019). These indicators provide a comprehensive view of a firm's financial health and competitiveness (Damodaran, 2012).

Theoretical perspectives suggest that financial performance is influenced by both internal and external factors. Efficient resource utilization and strong governance structures enhance firm performance (Pandey, 2015). Conversely, macroeconomic conditions such as inflation and interest rates can constrain profitability by increasing operational costs and financial uncertainty (Pandey, 2015).

In Africa, financial performance remains uneven due to institutional weaknesses and economic challenges. High operating costs and limited access to credit constrain firm profitability (African Development Bank, 2022). In East Africa, sectoral differences are evident, with financial institutions generally outperforming other sectors due to regulatory support (Muriithi & Waweru, 2017). In Kenya, firm performance varies across sectors, with some firms achieving strong profitability while others face financial distress due to governance and liquidity challenges (Muriithi & Waweru, 2017).

These variations demonstrate that financial performance is shaped by both firm-level decisions and broader economic conditions. Understanding these dynamics requires a comprehensive approach that integrates firm-specific factors with macroeconomic influences.

1.1.3 Nairobi Securities Exchange (NSE)

Nairobi Securities Exchange (NSE) is the main capital market institution in Kenya, whereby savings and investments are mobilized by trading in equity and debt securities. Founded in 1954 and renamed in 2011, NSE has developed to be one of the most vibrant exchanges in Africa with the presence of companies in a wide range of industries, including banking, manufacturing, agriculture, telecommunications, and energy (NSE, 2025).

Stock exchanges globally are viewed as important platforms in increasing corporate transparency, better governance, and access to long-term capital (World Federation of Exchanges, 2022). The Johannesburg Stock Exchange (JSE) prevails in Africa, with more than 70 per cent of market capitalization throughout the continent, and minor stock exchange markets like the NSE contribute significantly to region integration and mobilization of capital (Allen et al., 2019).

Since the independence of Kenya, the NSE has experienced a great change. The major ones are the creation of the Capital Markets Authority (CMA) in 1990, the automation of trading systems in 2006, and the introduction of new market segments, including the Growth Enterprise Market Segment (GEMS) to serve small and medium-sized firms (Waweru, 2015). The NSE had 66 listed companies as at 2024, and had an overall market capitalization of around KSh 2.3 trillion (CMA, 2024). The exchange is dominated by financial institutions with more than 40 percent of market capitalization with Safaricom Plc holding close to half of overall value.

In spite of these successes, NSE still has problems. Liquidity is poor relative to international and regional standards, and turnover is an average of less than 0.1% of the market capitalization on a daily basis (World Bank, 2022). Deltistings and company

collapses like those of Uchumi Supermarkets and Mumias Sugar have cast doubts on corporate governance and survival. Besides, macroeconomic instability such as inflation, currency depreciation and rise in interest rates have remained a problem in investor confidence.

However, NSE is a crucial financial sector in Kenya. It offers a much needed platform to assess the effects of firm specific and institutional factors on financial performance by encouraging corporate transparency, improving the standards of governance and making it easier to raise capital.

1.2 Statement of the Problem

The financial performance of firms listed on the Nairobi Securities Exchange (NSE) has remained a persistent concern among regulators, investors, and policymakers due to its implications for capital market development and economic growth. Despite the critical role of listed firms in mobilizing capital and driving investment, their profitability has been inconsistent and, in some cases, declining over time. Recent reports indicate that the average return on assets (ROA) for firms in Sub-Saharan Africa remains below 3%, compared to a global average of approximately 5% (World Bank, 2022). In Kenya, sectoral disparities and ROA persist, with some firms recording negative returns while others demonstrate modest recovery following the COVID-19 pandemic (Capital Markets Authority, 2024). Evidence from NSE data further suggests that a significant proportion of listed firms have experienced unstable or declining earnings, with several firms reporting persistent losses or financial distress over multiple years (Capital Markets Authority, 2024).

Firm-level challenges have further compounded the problem of weak financial performance. Rising operating costs, currency depreciation, and increasing levels of non-performing loans have continued to erode profitability among Kenyan firms (Muriithi & Waweru, 2017). In addition, several high-profile firms, including Uchumi Supermarkets and Mumias Sugar, have faced insolvency and eventual delisting, reflecting deep-rooted governance and financial management challenges (Aluoch et al., 2020). These trends indicate that despite some improvements in macroeconomic conditions, firm performance remains fragile and uneven across sectors.

Over the past decade, regulatory bodies such as the Capital Markets Authority have introduced reforms aimed at strengthening corporate governance and financial reporting, including the adoption of International Financial Reporting Standards (IFRS) and the Mwongozo Code. These reforms were intended to enhance transparency, accountability, and investor confidence. However, the continued occurrence of firm failures and inconsistent financial performance suggests that these interventions have not fully addressed the underlying drivers of firm profitability (Deloitte, 2023). This raises critical concerns regarding the effectiveness of governance structures and ownership mechanisms in improving firm outcomes.

Although existing empirical studies have identified key determinants of financial performance, the evidence remains fragmented and lacks a unified analytical perspective. Some studies emphasize the role of liquidity and leverage in influencing profitability (Muriithi & Waweru, 2017). Other studies highlight the importance of corporate governance mechanisms such as board structure and independence (Aluoch et al., 2020). Additionally, research on ownership structure has largely focused on specific sectors such as banking,

limiting the generalizability of findings across all listed firms (Kirimi, Kariuki & Ocharo, 2022). These fragmented approaches fail to capture the combined and interactive effects of firm-specific factors on financial performance.

Furthermore, most existing studies in Kenya adopt cross-sectional research designs, which limit the ability to analyze dynamic changes in firm performance over time (Batten & Vo, 2019). There is also limited integration of ownership structure, corporate governance, and firm-specific characteristics within a single analytical framework, despite theoretical evidence suggesting that these factors jointly influence firm outcomes (Bobenič-Hintošová et al., 2020). In addition, comparative research within the East African region remains limited, with greater emphasis placed on countries such as South Africa and Nigeria, thereby creating a contextual gap in understanding firm performance within the Kenyan capital market (Ntim, 2016). This lack of comprehensive and longitudinal analysis restricts the ability to develop robust policy and managerial insights.

Failure to address these gaps has significant implications for multiple stakeholders. For investors, limited understanding of the drivers of financial performance increases uncertainty and reduces the effectiveness of investment decisions. For policymakers, inadequate evidence on firm-level determinants constrains the formulation of effective regulatory and governance frameworks. At the macroeconomic level, weak firm performance undermines capital market efficiency, reduces investor confidence, and limits the contribution of listed firms to economic growth and development.

Given these challenges, there is a need for a comprehensive and integrated analysis that examines the combined effects of ownership structure, corporate governance, and firm-specific characteristics on financial performance among NSE-listed firms. Such an approach

is essential to provide a deeper understanding of how internal firm dynamics interact with macroeconomic conditions to influence profitability and sustainability.

1.3 Research Objectives

1.3.1 General Objective

To assess the effect of firm-specific institutional factors and financial performance of firms listed at the Nairobi Securities Exchange (NSE)

1.3.2 Specific Objectives

1. To evaluate the effect of ownership structure on the financial performance of NSE-listed firms.
2. To determine the effect of corporate governance on the financial performance of NSE-listed firms.
3. To examine the effect of firm-specific characteristics on the financial performance of NSE-listed firms.
4. To assess the moderating role of Macroeconomic factors on the financial performance of NSE-listed firms.

1.4 Research Questions

1. What is the effect of ownership structure on the financial performance of NSE-listed firms?
2. How does corporate governance influence the financial performance of NSE-listed firms?
3. To what extent do firm-specific characteristics affect the financial performance of NSE-listed firms?
4. Do Macroeconomic factors moderate the relationship between firm-specific determinants and the financial performance of NSE-listed firms?

1.5 Scope and Limitations of the Study

The research focused on firms listed on the Nairobi Securities Exchange (NSE) that had maintained uninterrupted operations from 2015 to 2024. This ten-year timeframe was selected to enable the study to track long-term trends and evaluate both gradual and significant shifts in financial and non-financial organizational aspects. The study employed balanced panel data, which ensured consistency in analysis and controlled variations caused by external factors such as regulatory changes and market volatility. The analysis covered both financial and non-financial variables. Financial variables included liquidity, profitability, share capital, and retained earnings, while non-financial variables focused on elements such as ownership structures and board governance practices. By combining these two categories, the study sought to present a comprehensive view of how internal financial policies interacted with external governance mechanisms to drive financial performance.

Only firms that remained continuously listed on the NSE throughout the study period were included. This approach ensured that the dataset reflected companies with a stable market presence and reliable financial reporting. Firms that had been newly listed, delisted, or suspended were excluded to minimize bias resulting from incomplete or inconsistent records. The study involved companies from both financial and non-financial sectors. Despite its comprehensive design, the study encountered several challenges. Variations in the availability and accuracy of financial data across firms and years posed difficulties, as some companies had weak reporting practices, which potentially affected the reliability of regression outcomes (Ayako et al., 2015). Furthermore, external factors such as global economic trends, political instability, and macroeconomic shocks were not directly

incorporated into the model, even though they could significantly influence firm performance. The study instead focused primarily on internal financial and governance-related variables.

The findings were specific to NSE-listed firms and were not directly applicable to unlisted companies or businesses in other emerging markets due to the unique market dynamics and regulatory environment in Kenya. While the multi-sectoral nature of the sample enriched the analysis, deeper sector-specific evaluations were beyond the scope of the study. The interpretation of results depended on whether the fixed-effects or random-effects models were more appropriate, as determined by the Hausman test. Given the evolving nature of the NSE and the continuous advancement of corporate governance practices, causal relationships were examined carefully. Ultimately, the research provided valuable insights into how both financial indicators and governance structures influenced financial performance.

1.6 Research Gap

Financial performance has been extensively studied, but there is limited research that combines financial and non-financial factors in a single analytical model for emerging markets such as Kenya. The literature shows frequent separation in research because researchers tend to study financial metrics independently or address corporate governance without combining both (Batten & Vo, 2019). Current analysis failed to prove how these individual determinants affect financial performance in combination; thus, there is a need for advanced research that includes its regulatory transformations along with increasing corporate governance. The study provided a comprehensive framework that integrates both variables to deliver better insight for stakeholders while addressing previous research gaps.

1.7 Significance of the Study

Multiple stakeholder groups represented by investors, scholars, policymakers, and business managers played crucial roles in the significance of this research project. The study enabled investors to interpret both financial and non-financial metrics affecting financial performance, thereby providing a stronger foundation for informed business decisions. The examination offered valuable insights for decision-makers and regulators to identify better approaches for enhancing market performance through refined governance practices and regulatory transformations. Furthermore, it enriched academic research by integrating studies on financial performance and corporate governance that had previously existed in isolation. The combined research approach led to improved corporate practices in Kenya while positioning the country for sustainable long-term economic growth.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter explores existing literature on the factors influencing the value of firms, with particular emphasis on companies listed on the Nairobi Securities Exchange (NSE). The value of a firm is shaped by a mix of financial elements such as liquidity, solvency, profitability, and the level of investment as well as non-financial considerations like board composition, degree of independence, and ownership structures.

The review is organized to cover conceptual, operational, empirical, and theoretical perspectives, providing a comprehensive understanding of the subject in relation to the study's objectives. In addition, it draws upon key theoretical frameworks, including Agency Theory, the Resource-Based View, Stakeholder Theory, and the Efficient Market Hypothesis, to explain how different internal and external factors interact to affect financial performance. By synthesizing these perspectives, the chapter establishes a solid theoretical and empirical foundation that informs the research design and methodology.

2.1 Theoretical Framework

A theoretical framework provides the foundation upon which research is structured, guiding the selection of variables, interpretation of findings, and alignment with existing knowledge. According to Varpio, Paradis, Uijtdehaage, and Young (2020), a theoretical framework integrates established theories into a study to explain relationships between constructs and justify the research approach. Unlike conceptual frameworks, which map expected connections, theoretical frameworks ground studies in tested theories, offering explanatory

power and coherence. In this research, theories such as Agency Theory, Resource-Based View, and Stakeholder Theory will frame the analysis, ensuring alignment between determinants of financial performance and scholarly perspectives.

2.2.1 Agency Theory

Agency theory, developed by Jensen and Meckling (1976), is a foundational framework in corporate finance and governance that explains the relationship between principals (shareholders) and agents (managers). The theory posits that conflicts arise when managers pursue personal interests rather than maximizing shareholder wealth. To mitigate these conflicts, governance mechanisms such as independent boards, increased disclosure, and performance-based incentives are implemented (Aluoch et al., 2020). However, the theory has been criticized for its narrow focus on shareholder interests and its assumption that monitoring mechanisms alone can resolve agency conflicts (Eisenhardt, 1989).

In the context of this study, agency theory directly informs the ownership structure and corporate governance variables. Ownership concentration is linked to agency theory as it enhances monitoring by large shareholders, thereby reducing agency costs (Jensen & Meckling, 1976). Managerial ownership is also explained through agency theory, as it aligns managers' interests with those of shareholders but may lead to entrenchment when excessively high. Similarly, corporate governance variables such as board independence and audit committee independence are grounded in agency theory because they strengthen oversight and reduce managerial opportunism (Aluoch et al., 2020). Therefore, agency theory provides the theoretical basis for examining how ownership structure and governance mechanisms influence the financial performance of NSE-listed firms.

2.2.2 Resource-Based View (RBV)

The Resource-Based View (RBV), developed by Barney (1991), argues that firms achieve sustainable competitive advantage when they possess resources that are valuable, rare, inimitable, and non-substitutable (VRIN). These resources include tangible assets such as capital and infrastructure, as well as intangible assets such as managerial capabilities, organizational culture, and technological expertise (Ayako et al., 2015). Despite its relevance, RBV has been criticized for being static and for underemphasizing the role of external environmental factors and market dynamics (Priem & Butler, 2001).

In this study, RBV informs the firm-specific characteristics variables, which represent internal resources that drive performance. Firm size reflects access to financial and operational resources that can enhance economies of scale and competitive positioning (Titman & Wessels, 1988). Liquidity represents a firm's ability to mobilize short-term resources to sustain operations and respond to opportunities (Brealey et al., 2018). Leverage captures the strategic use of financial resources, which can either enhance returns or increase financial risk depending on its level (Myers, 2001). Investment intensity reflects the firm's commitment to long-term resource development and capital allocation. Through RBV, these variables are conceptualized as internal capabilities that determine how effectively firms generate superior financial performance.

2.2.3 Stakeholder Theory

Stakeholder theory, proposed by Freeman (1984), expands the focus of the firm beyond shareholders to include a broader set of stakeholders such as employees, customers, regulators, creditors, and the community. The theory argues that firms that effectively balance the interests of these stakeholders achieve greater legitimacy, improved reputation,

and long-term sustainability (Ayako et al., 2015). However, the theory has been criticized for its lack of clarity in prioritizing stakeholder interests and its potential to dilute managerial accountability (Jensen, 2001).

In this study, stakeholder theory informs the role of external and contextual variables, particularly macroeconomic factors and aspects of corporate governance. Macroeconomic variables such as inflation, interest rates, and exchange rates represent the broader economic environment within which firms operate, influencing their ability to meet stakeholder expectations and sustain performance. Additionally, governance elements such as board gender diversity reflect stakeholder inclusivity and responsiveness to societal expectations. Stakeholder theory therefore provides the foundation for understanding how external conditions and broader stakeholder relationships influence the financial performance of NSE-listed firms.

2.3 Empirical Literature Review

An empirical literature review involves the examination and synthesis of studies based on observed and measured phenomena. It focuses on research that uses data gathered through experiments, surveys, interviews, or observations to provide evidence on a specific topic. This type of review critically analyzes previous empirical studies to identify patterns, gaps, and trends, offering a solid foundation for further research. According to Bailey et al. (2019), empirical literature reviews are essential for advancing knowledge, as they evaluate how theories have been tested in real-world contexts, thus guiding future studies and informing practical decision-making in the field.

2.3.1 Ownership Structure and Financial Performance

Empirical literature on ownership structure and financial performance indicates that ownership configuration plays a critical role in shaping firm outcomes, although the direction and magnitude of this relationship vary across contexts. Ownership structure influences monitoring, control, and decision-making processes within firms, thereby affecting profitability and operational efficiency.

Evidence from existing studies suggests that different forms of ownership have varying effects on firm performance. Ownership concentration is generally associated with improved monitoring and enhanced performance due to stronger oversight by dominant shareholders (Kirimi et al., 2022). However, excessive concentration may also result in entrenchment and reduced protection of minority shareholders, which can negatively affect performance outcomes (Kirimi et al., 2022). Similarly, managerial ownership is expected to align the interests of managers with those of shareholders, although high levels of managerial control may lead to self-serving behavior and reduced firm performance (Kirimi et al., 2022). Institutional and foreign ownership have also been shown to influence performance, although their effects are often inconsistent and context-dependent (Kirimi et al., 2022).

However, empirical findings on ownership structure are not entirely consistent. Some studies indicate that certain forms of ownership, such as institutional and managerial ownership, may exhibit negative or insignificant relationships with performance indicators, particularly in emerging markets where governance frameworks are weak (Kirimi et al., 2022). In contrast, other studies emphasize the positive role of domestic or local ownership in influencing firm financial policies, such as dividend payouts, although these studies do not always establish a direct link to profitability (Kaur & Kaur, 2025). These mixed findings

suggest that the impact of ownership structure on performance depends on contextual factors such as regulatory environments, market maturity, and firm characteristics.

Further evidence highlights the interaction between ownership structure and financial decisions. Studies on capital structure suggest that financing decisions, particularly equity financing, can positively influence firm performance (Ngei, 2022). However, such studies often overlook the governance dimensions of ownership, limiting the ability to fully understand how ownership distribution interacts with financial structure to influence performance (Ngei, 2022). Similarly, research on financial structure indicates that higher equity ratios improve firm performance, while increased debt levels reduce profitability, although these studies do not explicitly isolate ownership effects (Kutto, 2020). This suggests that ownership and financing decisions are interconnected but are often examined separately in empirical literature.

Additionally, governance-focused studies provide indirect evidence of the importance of ownership structure in shaping firm performance. Governance mechanisms such as audit committee effectiveness and board structures have been shown to influence firm outcomes, although many studies do not explicitly incorporate ownership variables into their models (Singhania & Panda, 2025). This omission highlights a conceptual gap in the literature, where ownership dynamics are not fully integrated into broader governance-performance frameworks.

Despite the extensive body of research, several gaps remain. First, much of the existing literature is sector-specific, with a strong focus on banking institutions, thereby limiting the generalizability of findings to other sectors (Kirimi et al., 2022). Second, some studies focus on specific financial outcomes such as dividend policies rather than comprehensive measures

of financial performance such as ROA and ROE (Kaur & Kaur, 2025). Third, there is limited integration of ownership structure with other firm-level factors such as governance mechanisms and financial characteristics, resulting in fragmented insights into firm performance dynamics (Singhania & Panda, 2025). Furthermore, many studies in emerging markets fail to adopt a comprehensive, cross-sectoral approach, thereby limiting the applicability of findings to broader capital market contexts.

This study addresses these gaps by providing a comprehensive analysis of ownership structure and financial performance among firms listed on the Nairobi Securities Exchange (NSE). By incorporating multiple dimensions of ownership, including ownership concentration, institutional ownership, managerial ownership, and foreign ownership, and examining their combined effects on profitability indicators such as ROA and ROE, the study offers a more integrated and context-specific understanding of ownership-performance relationships in Kenya.

2.3.2 Corporate Governance and Financial Performance

Empirical literature on corporate governance and financial performance demonstrates that governance mechanisms play a significant but context-dependent role in shaping firm outcomes. Across different markets, key governance variables such as board independence, board size, and audit structures have been widely examined, although findings remain mixed and sometimes contradictory.

Evidence from developed economies suggests that strong governance frameworks enhance financial performance. For instance, firms with effective governance structures tend to exhibit higher profitability due to improved monitoring and accountability mechanisms (Affes & Jarboui, 2023). Board independence, in particular, is consistently associated with

better oversight and improved firm performance, as independent directors are more likely to act in the interests of shareholders (Saidat et al., 2019). These findings support the argument that governance structures reduce agency problems and enhance decision-making efficiency.

However, the relationship between governance and performance is not uniform across all governance dimensions. While board independence shows a positive influence, board size has produced inconsistent results. Larger boards have been associated with inefficiencies and coordination challenges, which negatively affect firm performance (Saidat et al., 2019). Similarly, some studies report that governance mechanisms such as audit committees and disclosure practices may have insignificant or even negative effects on performance, particularly in contexts where institutional frameworks are weak or poorly enforced (Al-Ahdal et al., 2020). These inconsistencies suggest that governance effectiveness depends not only on the presence of structures but also on the quality of their implementation.

Contextual differences further shape governance-performance relationships. In emerging and developing economies, governance mechanisms are influenced by institutional environments, regulatory frameworks, and ownership structures. For example, governance practices such as board expertise and gender diversity have been found to positively influence firm performance in regulated environments where oversight mechanisms are enforced (Abang'a et al., 2022). However, the effectiveness of these mechanisms may be limited in contexts characterized by weak regulatory enforcement and concentrated ownership structures. This indicates that governance outcomes are highly sensitive to institutional and market conditions.

Despite these insights, existing literature reveals several important gaps. First, many studies are context-specific, focusing on either developed markets or single-country settings, which limits the generalizability of findings to emerging markets such as Kenya (Affes & Jarboui, 2023). Second, a significant portion of the literature concentrates on specific firm categories, such as family-owned firms or state-owned enterprises, without capturing governance dynamics across diverse firm types (Saidat et al., 2019; Abang'a et al., 2022). Third, cross-country studies often overlook African markets, creating a gap in understanding governance-performance relationships within the continent (Al-Ahdal et al., 2020).

Furthermore, existing studies often examine governance variables in isolation, without integrating them with other firm-specific factors such as ownership structure and financial characteristics. This fragmented approach limits the ability to capture the interactive effects of governance mechanisms on financial performance. As a result, there is insufficient empirical evidence on how governance structures operate within a comprehensive framework that reflects both internal firm dynamics and external institutional conditions.

This study addresses these gaps by providing an integrated analysis of corporate governance and financial performance among firms listed on the Nairobi Securities Exchange (NSE). By examining multiple governance dimensions including board independence, board size, gender diversity, and audit committee independence—across firms in different sectors, the study offers a more comprehensive understanding of governance-performance relationships within the Kenyan context.

2.3.3 Firm-Specific Characteristics and Financial Performance

Bobenič-Hintošová, Bobenič, Hajduová, and Szajt (2020) analyzed how firm-specific factors shaped performance in Slovakia's metallurgical industry. Using a firm-level panel

dataset and fixed-effects regression, they established that liquidity and firm age had mixed effects, asset turnover negatively affected performance, while cost-effectiveness improved outcomes. Interestingly, firm size was insignificant. Their study underscored the importance of internal characteristics but was limited to one sector in a European market. This narrow scope leaves a gap on whether similar factors matter across industries in emerging economies. The study addressed this by assessing liquidity, leverage, firm size, and investment intensity as drivers of performance among NSE-listed firms.

Hasnan, Mohd Razali, and Hussain (2021) extended the analysis of firm-specific factors in the Malaysian context by examining their role in financial restatements among 147 public firms between 2011 and 2016. Employing univariate tests and logistic regression, they found that high leverage significantly increased the likelihood of restatements, while better performance and executive compensation reduced this risk. Other characteristics such as firm age and liquidity showed weak or insignificant effects. While informative, the study measured governance misreporting risk rather than financial performance. The research overcomed this by directly linking firm-specific traits to profitability and market valuation among NSE-listed firms.

Msomi and Nzama (2023) investigated how internal firm attributes influence the financial performance of 36 insurance companies in South Africa over the period 2008–2019. Applying panel regression techniques, they observed that the liquidity ratio had a significant positive effect on return on assets (ROA), indicating that firms with higher liquidity tend to perform better. Conversely, leverage ratio was found to have a negative effect on performance, suggesting that higher debt levels undermine profitability. Firm size exhibited a slight positive relationship with performance, while variables such as premium

growth and asset tangibility were statistically insignificant. Although these findings provided valuable insights, the study was limited to the insurance sector, which restricts its applicability to other industries. The study addressed this limitation by examining firm-specific factors across diverse sectors represented on the Nairobi Securities Exchange (NSE), thereby offering a broader and cross-industry perspective.

In a related context, Jaishi and Poudel (2021) analyzed the performance determinants of 14 publicly listed insurance companies in Nepal using a combination of descriptive and causal-comparative research designs over a ten-year period (2009–2019). Their study revealed that higher debt ratios and tangible assets were positively associated with financial performance, while firm size and liquidity were negatively related to profitability. Moreover, they established that non-life insurers outperformed life insurance companies in both earnings per share (EPS) and return on assets. While their findings enrich the understanding of firm-level performance, the study focused exclusively on the insurance industry, overlooking other sectors that may exhibit different performance dynamics. By extending the analysis to include all companies listed on the NSE, the current study situates these relationships within a wider institutional and economic framework in Kenya.

The body of existing literature confirms that firm-specific characteristics including liquidity, leverage, firm size, and asset tangibility play a significant role in determining financial performance. However, the findings across studies have been inconsistent, with variations often linked to differences in industries, markets, and geographical contexts. Much of the previous research has been fragmented, focusing on isolated sectors such as insurance or non-African economies. This study bridges these gaps by systematically analyzing firm-specific factors across multiple sectors of the NSE. Through this approach, it directly

addresses the research objective of evaluating how internal firm characteristics affect the financial performance of NSE-listed companies.

2.3.4 Moderating Role of Firm Sector and Financial Performance

Al-Hashimy (2025) explored financial management strategies and their impact on performance within Iraq's construction sector, emphasizing the role of firm size as a moderating factor. Using survey responses from 296 participants and applying Partial Least Squares Structural Equation Modeling (PLS-SEM), the findings revealed that larger firms achieved greater efficiency in managing material and labor costs compared to their smaller counterparts. This underscored the significance of contextual factors in shaping firm performance. However, the study was limited in scope as it focused solely on construction companies and considered firm size rather than industry sector as the moderator. The present research expands on this by examining how variations across different sectors influence the relationship between firm-level determinants and performance among companies listed on the Nairobi Securities Exchange (NSE).

Similarly, Abdi, Li, and Càmara-Turull (2022) investigated the effect of Environmental, Social, and Governance (ESG) disclosures on financial performance in a sample of 38 international airlines covering the period 2009 to 2019. Their regression analysis with interaction effects showed that ESG engagement significantly enhanced both firm value and financial efficiency. Furthermore, firm size strengthened the positive impact of ESG practices, while firm age had no moderating effect. Although the study contributed valuable insights into sustainability practices, its focus on a single industry left the role of sectoral differences unexplored. The current study addresses this gap by evaluating how sector-

specific dynamics moderate the broader relationship between financial and governance factors and firm performance in Kenya's securities market.

In another context, Akben-Selcuk (2019) examined the connection between corporate social responsibility (CSR) and firm performance for non-financial companies listed on the Borsa Istanbul between 2014 and 2018. Through the use of an instrumental variable approach, the research established that CSR activities positively influenced financial performance. However, this effect was diminished when ownership concentration was high, suggesting that governance structure plays a crucial moderating role. Despite these contributions, the study did not account for differences across industries. In contrast, the current research explicitly incorporates sectoral heterogeneity, recognizing that different industries have unique financial and operational characteristics that can shape firm performance outcomes.

Additionally, Nirino, Santoro, Miglietta, and Quaglia (2021) assessed the impact of corporate controversies on firm performance using data from 356 European companies. Their linear regression analysis revealed that controversies had a detrimental effect on financial results. However, they were unable to demonstrate ESG practices as an effective moderator in this relationship. While their findings highlighted the relevance of contextual factors, the potential moderating role of industry sector was not examined. Building on their work, the present study investigates how sectoral classification influences the interaction between ownership structures, governance practices, firm-specific factors, and performance within the Kenyan market, where sectoral conditions play a crucial role in shaping financial outcomes.

Overall, previous studies emphasize that moderators such as firm size, ownership concentration, and governance mechanisms affect the link between firm-level factors and financial performance. However, limited attention has been paid to the influence of industry sector, particularly in African markets. This study addresses this critical gap by evaluating how sectoral classification acts as a moderating factor, thereby fulfilling the fourth objective of understanding cross-sector variations among NSE-listed firms.

2.4 Knowledge Gaps

TABLE 1

Knowledge Gaps

Author(s)	Methodology	Findings	Knowledge Gap	How Current Study Will Address the Gap
Kirimi, Kariuki & Ocharo (2022)	Regression analysis on audited data from 39 Kenyan banks (2009–2020)	Ownership structure significantly influenced performance (NIM 53.04%, ROA 31.37%), but state, management, institutional, and foreign ownership had negative associations with some indicators.	Focused only on banks, ignoring listed firms across other industries.	This study will evaluate ownership structures across all NSE-listed firms, providing broader institutional evidence.
Kaur & Kaur (2025)	Fixed-effects panel analysis of 30 Indian NSE firms (2019–2021)	Positive association between Indian/non-institutional ownership and dividends; board independence not significant.	Focused on dividend policy, not profitability.	This study links ownership directly to firm performance indicators such as ROA and ROE.
Ngei (2022)	Panel regression of 46 non-financial NSE firms (2017–2021)	Equity financing positively influenced performance; capital structure decisions affected ROA.	Concentrated on financing mix, overlooking ownership	This study integrates both structural financing and

Author(s)	Methodology	Findings	Knowledge Gap	How Current Study Will Address the Gap
			concentration and managerial ownership.	governance-linked ownership patterns.
Kutto (2020)	Regression on 47 NSE non-financial firms (2013–2018)	Equity ratio improved performance; board size and interest-bearing debt reduced profitability.	Did not directly isolate ownership distribution effects.	This study explicitly analyzes ownership concentration, institutional, and managerial ownership.
Singhania & Panda (2025)	PLS-SEM on 133 Indian companies (2016–2020)	Audit committee composition influenced firm performance.	Governance studied without ownership dynamics.	This study embeds ownership structure into governance frameworks for NSE firms.
Affes & Jarboui (2023)	FGLS regression on 160 UK firms (2005–2018)	Effective governance improved ROE; industry variations observed.	Conducted in developed markets, not emerging ones.	This study situates governance-performance analysis in Kenya's NSE context.
Saidat, Silva &	Panel analysis of 228 Jordanian firms (2009–2015)	Board size negatively affected performance; independence positive;	Focused on family vs. non-family firms.	This study examines governance across all

Author(s)	Methodology	Findings	Knowledge Gap	How Current Study Will Address the Gap
Seaman (2019)		ownership concentration insignificant.		NSE-listed firms, not only family entities.
Abang'a et al. (2022)	Panel regression on 45 Kenyan SOEs (2015–2018)	Board skills, meetings, and gender diversity improved performance.	Limited to SOEs, excluding private NSE firms.	This study evaluates governance-performance linkages across diverse NSE sectors.
Al-Ahdal et al. (2020)	Regression on 106 Indian & GCC firms (2009–2016)	Board accountability, audit committees, and disclosures mostly insignificant; Indian firms outperformed GCC.	Did not include African markets.	This study contextualizes governance mechanisms in Kenya's evolving regulatory environment.
Bobenič-Hintošová et al. (2020)	Fixed-effects regression on Slovak metallurgy firms	Liquidity and age ambiguous; asset turnover negative; cost-effectiveness positive; firm size insignificant.	Single industry, European market focus.	This study tests firm-specific factors across multiple NSE sectors in Kenya.
Hasnan et al. (2021)	Logistic regression on 147	Leverage increased restatements; performance	Measured misreporting risk, not performance.	This study directly links firm-specific characteristics to

Author(s)	Methodology	Findings	Knowledge Gap	How Current Study Will Address the Gap
	Malaysian firms (2011–2016)	and compensation reduced risk.		profitability and valuation.
Msomi & Nzama (2023)	Panel regression on 36 South African insurers (2008–2019)	Liquidity positive; leverage negative; size marginal; tangibility insignificant.	Focused only on insurance firms.	This study expands to all NSE-listed firms across sectors.
Jaishi & Poudel (2021)	Descriptive and causal-comparative analysis of 14 Nepali insurers (2009–2019)	Debt ratio and tangibility improved ROA; size and liquidity reduced performance.	Insurance sector focus, not generalizable.	This study examines firm-specific traits in diverse NSE-listed firms.
Al-Hashimy (2025)	PLS-SEM survey of 296 Iraqi construction firms	Larger firms gained more from cost efficiencies; size moderated performance.	Focused on firm size as moderator, not sector.	This study tests sector as a moderator in Kenya's capital market.
Abdi, Li & Càmara-Turull (2022)	Regression with interaction terms on 38 airlines (2009–2019)	ESG improved performance; size moderated positively, age not significant.	Focused on sustainability in airlines; no sector effects.	This study examines sectoral moderation on financial and governance determinants.

Author(s)	Methodology	Findings	Knowledge Gap	How Current Study Will Address the Gap
Akben-Selcuk (2019)	Instrumental variable regression on Turkish firms (2014–2018)	CSR improved performance; effect weakened by ownership concentration.	Studied ownership moderation, not sector.	This study incorporates sectoral heterogeneity in NSE firms.
Nirino et al. (2021)	Regression on 356 European firms	Controversies harmed performance; ESG failed as moderator.	Contextual moderators studied, but not sectoral role.	This study analyzes sectoral moderation in Kenyan listed firms.

2.5 Conceptual Framework

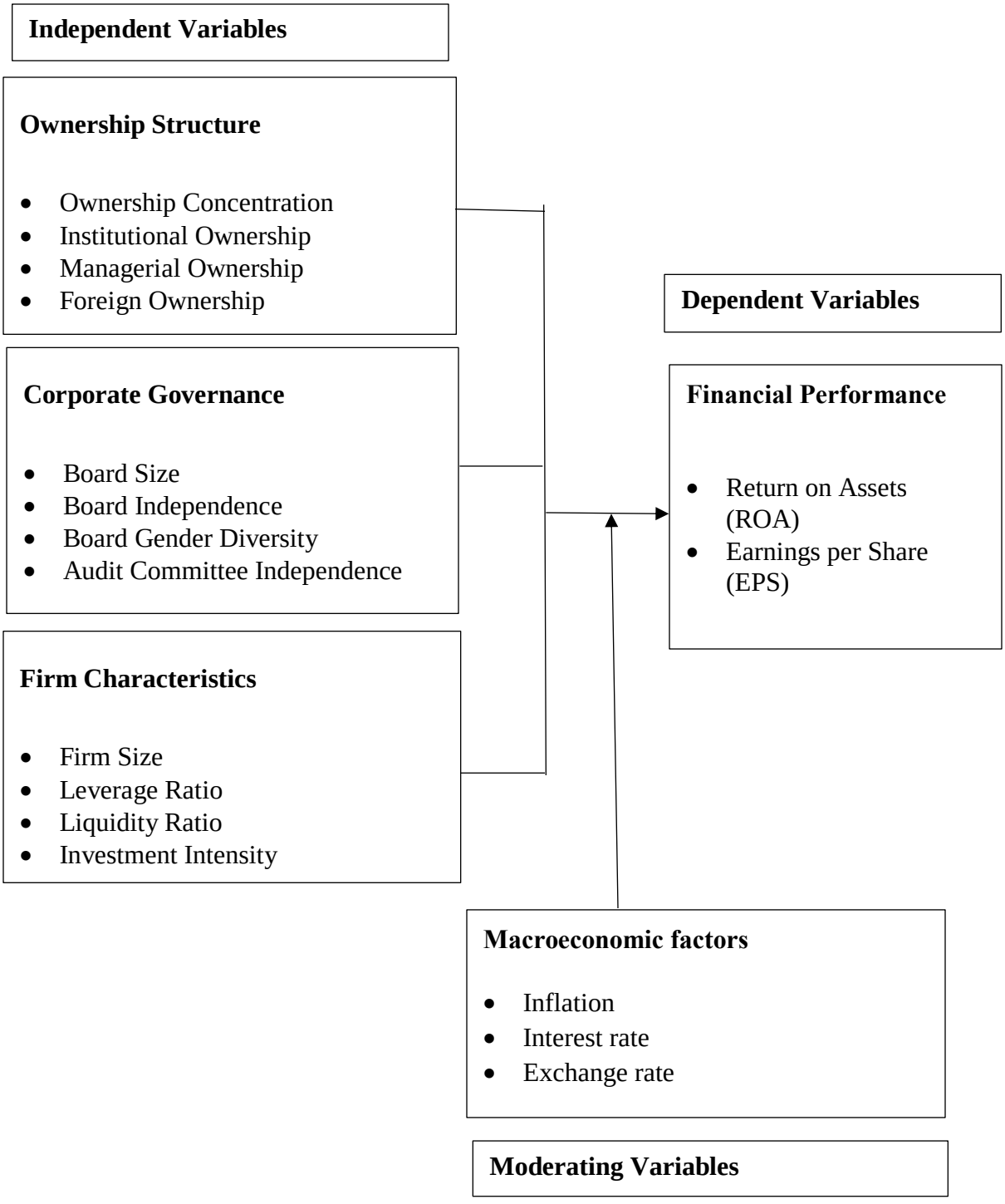


FIGURE 1

Conceptual Framework

2.6 Operationalization of Variables

TABLE 2

Operationalization of Variables

Variable	Indicator	Measurement / formula	Unit / scale / frequency	Data source
Ownership structure (IV)	1. Ownership concentration (Top-5)	Sum of % shares held by top 5 shareholders = ∑(Top5 %).	Percent (0–100). Annual (firm-year).	Shareholding schedule in company annual report / NSE / CMA filings.
	2. Institutional ownership	% shares held by institutional investors (pension funds, insurance, asset managers).	Percent (0–100). Annual.	Annual report / CMA / NSE disclosures.
	3. Managerial ownership	% shares held by executives & board members.	Percent (0–100). Annual.	Company annual report (shareholding schedule).
	4. Foreign ownership	% shares held by foreign investors (non-resident).	Percent (0–100). Annual.	NSE / CMA / annual reports.
Corporate governance (IV)	1. Board size	Number of directors on the board.	Count. Annual.	Governance disclosures / annual reports.
	2. Board independence	% independent non-executive directors = (Independent ÷ Total directors)×100.	Percent (0–100). Annual.	CMA / company governance reports.
	3. Gender diversity	% female directors = (Female ÷ Total directors)×100.	Percent (0–100). Annual.	Company annual reports / governance disclosures.

	4. Audit committee independence	% independent members on audit committee = (Independent audit members ÷ Total audit members)×100.	Percent (0–100). Annual.	Annual reports / NSE governance disclosures.
Firm characteristics (IV)	1. Firm size	Log(Total assets) or Log(Market capitalization).	Continuous (log KES). Annual.	Balance sheet / NSE market data.
	2. Leverage	Total debt ÷ Shareholders' equity.	Ratio. Annual.	Balance sheet / audited financials.
	3. Liquidity	Current assets ÷ Current liabilities.	Ratio. Annual.	Balance sheet / audited financials.
	4. Investment intensity	Capital expenditure ÷ Total assets (CapEx/Assets).	Ratio. Annual.	Cash flow / notes to financials.
Macroeconomic factors (Moderator)	1. Inflation	Annual % change in CPI.	Percent (annual). Annual.	KNBS / CBK / World Bank time series. See proposal discussion of macro effects.
	2. Interest rate	CBK policy rate (annual average) or bank lending rate.	Percent (annual). Annual.	Central Bank of Kenya (CBK).
	3. Exchange rate	Annual average KES per USD (or % depreciation).	KES / USD or % change. Annual.	CBK / NSE / World Bank.
Financial performance (DV)	1. Return on assets (ROA)	Net income ÷ Total assets.	Ratio (%). Annual.	Computed from audited financial statements.
	3. Earnings per share (EPS)	Net profit attributable to ordinary shareholders ÷ No. ordinary shares outstanding.	KES per share (or ratio). Annual.	Company annual reports / NSE.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the research methodology used in the research is described. It records the research design, the population, sampling process, the instrumentation, data collection and data analysis. It also brings out the diagnostic tests, the processes of validity and reliability and ethical considerations.

3.2 Research Design

A research design is the logical organization of the research process, which outlines the steps according to which data are collected, measure, and analyzed to answer the research questions. It makes sure that objectives and methods and analytical procedures are present in a coherent manner and hence bias is limited and validity is strengthened. Heavy research design, as postulated by Berman, Jones, Udry, and the National Longitudinal Study of Adolescent Health (2020), closes the gap between the theoretical propositions and the actual research investigation because, in this way, researchers can produce two types of credible evidence and draw valid conclusions in a systematic process.

The study adopted a quantitative research design that relied exclusively on secondary panel data to analyze the relationship between ownership structure, corporate governance, firm-specific characteristics, and the financial performance of NSE-listed firms. A panel research design was considered superior to a purely cross-sectional or time-series approach because it captured both temporal and individual firm variations, thereby controlling for unobserved heterogeneity that might have biased results. This design allowed for dynamic

analysis of changes in performance over time while accounting for firm-specific fixed effects. Fixed-effects (FE) and random-effects (RE) models handled firm-level differences more effectively, and the Hausman test determined the appropriate specification.

The study's secondary data were drawn from audited financial statements, annual reports, NSE handbooks, Capital Markets Authority (CMA) filings, and financial databases such as Bloomberg and Refinitiv. The data included performance indicators (ROA, ROE, EPS) alongside firm-level and governance indicators such as ownership concentration, board characteristics, liquidity, leverage, and firm size. This design was suitable for the study's objectives, which sought to quantify and interpret the relationships between firm attributes and financial outcomes across sectors and over time.

3.3 Population of the Study

The population of a study was the entire group of individuals, organizations, or items that possessed specific attributes relevant to the research problem. It formed the foundation from which a sample was selected to generate generalizable findings. Willie (2022) asserted that clearly defining the study population was crucial for achieving validity and relevance, as it distinguished the entire group from the target population that directly answered the research questions.

All 62 firms listed on the Nairobi Securities Exchange (NSE) as of 2024 constituted the target population for this study, as detailed in Appendix IV. These firms operated across diverse sectors,.

3.4 Sample Size and Sampling Procedure

The size of the sample and the approach used to select that sample is a decisive factor on the reliability and validity of acquired research outcomes. Sample size refers to a number of respondents or units in the target population that are chosen, whilst a given sampling procedure outlines or incorporates the manner in which the units are selected. Ahmed (2024) asserts that the choice of the sampling method as well as the sample size depends on population size, study aimed goals as well as available resources. What is meticulously selected reduces the bias, the representativeness and, by extension, enables findings to be extrapolated to the population at large. In that regard, the study will adopt a suitable sampling plan and carefully-quantified sample size to make valid and dependable findings.

The study adopted a census approach that included all 62 NSE-listed firms which met the continuous listing criteria over the 10-year study period. Conducting a census ensured comprehensive sectoral representation and eliminated sampling error, thereby increasing the external validity and representativeness of the findings. Stratification by sector was also applied to ensure proportional representation of financial and non-financial firms. Each firm-year observation was treated as a distinct data point across the period from 2015 to 2024. This stratified census approach enabled comparative analysis and facilitated the assessment of sectoral moderating effects on the determinants of financial performance.

3.5 Instrumentation

The processes and equipment of gathering information in a research study is referred to as instrumentation. It makes sure that the variables are measured in a correct and consistent way and according to the objectives of the study. As Mane and Nikam (2019) explain, validity and reliability of findings are improved when properly designed instruments, including questionnaires, interview schedules, and observation guides, are used.

The primary instrument for this study was a data extraction sheet designed to collect standardized information from secondary sources. The extraction sheet captured financial indicators, including Return on Assets (ROA), and Earnings per Share (EPS), alongside firm-specific and governance attributes such as ownership concentration, institutional and managerial ownership, board size, gender diversity, leverage, liquidity, and investment intensity. Macroeconomic data including inflation, interest rates, and exchange rates were sourced from the Kenya National Bureau of Statistics (KNBS) and the Nairobi Securities Exchange (NSE) databases.

The use of secondary data ensured objectivity, cost-efficiency, and reliability while minimizing response bias. All data points were manually extracted by trained research assistants and cross-verified by the researcher to ensure accuracy and consistency across years and firms.

3.5.1 Validity of Instrument

Validity refers to the degree to which an instrument measures what it is intended to measure. According to Ganesha and Aithal (2022), ensuring validity requires careful calibration, expert evaluation, and alignment with established constructs. In this study, several validity tests were conducted to ensure that the data extraction instrument and selected indicators accurately reflected the constructs of ownership structure, corporate governance, firm-specific characteristics, and financial performance. Content validity was established by aligning the indicators with widely accepted theoretical and empirical frameworks in corporate finance and governance. Variables such as ownership concentration, board independence, and financial ratios were adopted from validated models

in prior studies (Muriithi & Waweru, 2017; Aluoch, 2020; Ntim, 2016), ensuring theoretical consistency.

Construct validity was confirmed through triangulation of multiple data sources, including company annual reports, Capital Markets Authority (CMA) filings, Nairobi Securities Exchange (NSE) handbooks, and Bloomberg databases. The triangulation process ensured that measures obtained from one source were consistent with figures and disclosures from alternative verified documents. Where discrepancies were observed, the primary audited financial statements were treated as the authoritative source.

To further strengthen validity, expert review was conducted by two independent specialists in finance and econometrics from KCA University, who evaluated the data extraction sheet and confirmed that the indicators adequately represented the study's conceptual framework. Minor revisions suggested were incorporated before final data analysis. These validation processes confirm that the study's measurement instruments were both conceptually and empirically sound.

3.5.2 Reliability of Instrument

Reliability ensures that an instrument produces consistent and stable results across repeated applications. Ganesha and Aithal (2022) emphasize the importance of calibration and internal consistency checks to establish reliability. In this study, reliability was verified through multiple quantitative and procedural checks. Internal reliability was assessed by re-computing financial ratios such as Return on Assets (ROA), and leverage from raw financial statement data across two independent coding sessions. The computed results were then cross-checked against reported values in NSE annual handbooks and CMA reports. The

correlation coefficients between the independently computed and reported values exceeded 0.90, indicating a high degree of measurement consistency.

For governance and ownership data, inter-coder reliability was established by having two trained research assistants extract and code data from a pilot set of ten firms covering a three-year period (2020–2022). The results were compared using Cohen's Kappa statistic, which yielded an average agreement score of 0.82, surpassing the recommended threshold of 0.75 for substantial agreement. Discrepancies were reviewed and reconciled through consensus to ensure uniform interpretation of governance indicators such as board independence and audit committee composition.

Additionally, test–retest reliability was confirmed by re-running computations of randomly selected variables at two different times and verifying that results remained stable. These tests demonstrated that the data extraction process and computational procedures produced consistent and dependable results, thus affirming both the internal and external reliability of the instrument. Consequently, the reliability and validity assessments collectively confirm that the study's measurements were accurate, consistent, and robust enough to support valid empirical inference.

3.6 Data Collection Method

Data collection relied solely on secondary sources. Financial performance data were obtained from the audited annual reports of NSE-listed firms, while ownership and governance data were collected from NSE disclosures, CMA filings, and company governance reports. Sectoral classification followed the NSE's official categorization to ensure comparability across firms. Supplementary data, such as inflation rates and exchange

rates, were sourced from the Central Bank of Kenya (CBK), Nairobi Securities Exchange (NSE). This multi-source approach strengthened the accuracy, completeness, and reliability of the dataset.

3.7 Data Analysis

The study employed panel regression analysis to evaluate the effect of ownership structure, corporate governance, and firm-specific characteristics on firm financial performance. To examine the effect of firm-specific institutional factors on financial performance, the study employed a firm fixed-effects panel regression model. The fixed-effects estimator controls for unobserved, time-invariant heterogeneity across firms.

The general functional form of the model is specified as:

$$FP_{it} = \beta_0 + \beta_1 X_{it} + \mu_i + \varepsilon_{it}$$

Where:

- FP_{it}= Financial performance of firm $i$at time t
- X_{it}= Vector of explanatory variables
- β_0= Intercept term
- β_1= Vector of slope coefficients
- μ_i= Unobserved firm-specific fixed effects
- ε_{it}= Idiosyncratic error term

For $i = 62$firms and $t = 2015\ to\ 2024$.

Model 1: Ownership Structure Model

The ownership structure model is specified as:

$$FP_{it} = \beta_0 + \beta_1 OC_{it} + \beta_2 IO_{it} + \beta_3 MO_{it} + \beta_4 FO_{it} + \mu_i + \varepsilon_{it}$$

Where:

- OC_{it}= Ownership concentration
- IO_{it}= Institutional ownership
- MO_{it}= Managerial ownership
- FO_{it}= Foreign ownership

Model 2: Corporate Governance Model

$$FP_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 GD_{it} + \beta_4 ACI_{it} + \mu_i + \varepsilon_{it}$$

Where:

- BS_{it}= Board size
- BI_{it}= Board independence
- GD_{it}= Board gender diversity
- ACI_{it}= Audit committee independence

Model 3: Firm Characteristics Model

$$FP_{it} = \beta_0 + \beta_1 FS_{it} + \beta_2 LEV_{it} + \beta_3 LIQ_{it} + \beta_4 INV_{it} + \mu_i + \varepsilon_{it}$$

Where:

- FS_{it}= Firm size (log of total assets)
- LEV_{it}= Leverage ratio

- LIQ_{it}= Liquidity ratio
- INV_{it}= Investment intensity

Model 4: Moderation Model (Macroeconomic Effects)

To examine the moderating role of macroeconomic factors in the relationship between firm-specific factors and financial performance, the moderation model was specified as:

$$FP_{it} = \beta_0 + \beta_1 OC_{it} + \beta_2 IO_{it} + \beta_3 MO_{it} + \beta_4 FO_{it} + \beta_5 BS_{it} + \beta_6 BI_{it} + \beta_7 GD_{it} + \beta_8 ACI_{it} + \beta_9 FS_{it} + \beta_{10} LEV_{it} + \beta_{11} LIQ_{it} + \beta_{12} INV_{it} + \beta_{13} INF_{it} + \beta_{14} IR_{it} + \beta_{15} ER_{it} + \gamma_1 (OC_{it} * INF_{it}) + \gamma_2 (OC_{it} * IR_{it}) + \gamma_3 (OC_{it} * ER_{it}) + \gamma_4 (IO_{it} * INF_{it}) + \gamma_5 (IO_{it} * IR_{it}) + \gamma_6 (IO_{it} * ER_{it}) + \gamma_7 (MO_{it} * INF_{it}) + \gamma_8 (MO_{it} * IR_{it}) + \gamma_9 (MO_{it} * ER_{it}) + \gamma_{10} (FO_{it} * INF_{it}) + \gamma_{11} (FO_{it} * IR_{it}) + \gamma_{12} (FO_{it} * ER_{it}) + \mu_i + \epsilon_{it}$$

Where:

- INF_it = Inflation rate
- IR_it = Interest rate
- ER_it = Exchange rate

The interaction terms (X_it * Macroeconomic Factor) represented the moderating effect of macroeconomic conditions on each firm-specific factor.

Full Model

The full model combined all the variables—ownership structure, corporate governance, firm characteristics, and macroeconomic factors—to evaluate their collective impact on financial performance. The full model was specified as:

$$FP_{it} = \beta_0 + \beta_1 OC_{it} + \beta_2 IO_{it} + \beta_3 MO_{it} + \beta_4 FO_{it} + \beta_5 BS_{it} + \beta_6 BI_{it} + \beta_7 GD_{it} + \beta_8 ACI_{it} + \beta_9 FS_{it} + \beta_{10} LEV_{it} + \beta_{11} LIQ_{it} + \beta_{12} INV_{it} + \beta_{13} INF_{it} + \beta_{14} IR_{it} + \beta_{15} ER_{it} + \gamma_1 (OC_{it} * INF_{it}) + \gamma_2 (OC_{it} * IR_{it}) + \gamma_3 (OC_{it} * ER_{it}) + \gamma_4 (IO_{it} * INF_{it}) + \gamma_5 (IO_{it} * IR_{it}) + \gamma_6 (IO_{it} * ER_{it}) + \gamma_7 (MO_{it} * INF_{it}) + \gamma_8 (MO_{it} * IR_{it}) + \gamma_9 (MO_{it} * ER_{it}) + \gamma_{10} (FO_{it} * INF_{it}) + \gamma_{11} (FO_{it} * IR_{it}) + \gamma_{12} (FO_{it} * ER_{it}) + \mu_i + \epsilon_{it}$$

This model fully integrated the effects of internal firm dynamics and external macroeconomic conditions, providing a comprehensive analysis of the factors influencing the financial performance of NSE-listed firms from 2015 to 2024.

The study utilized a firm fixed-effects panel regression model to control unobserved heterogeneity across firms. This estimation technique isolates within-firm variations over time, thereby eliminating bias arising from time-invariant characteristics such as managerial philosophy, organizational culture, and structural firm differences. The model incorporates ownership structure, corporate governance mechanisms, firm characteristics, and macroeconomic factors to provide consistent and unbiased parameter estimates. Furthermore, interaction terms were introduced to assess moderation effects, enabling examination of how macroeconomic conditions influence institutional relationships. The

fixed-effects approach therefore enhances the robustness, validity, and reliability of empirical findings regarding the determinants of financial performance among NSE-listed firms.

3.8 Diagnostic Tests

Before estimation, diagnostic tests were conducted to ensure that the panel regression assumptions were satisfied and that the results were robust and unbiased. The diagnostics examined include: The existence of firm-specific effects to determine whether pooled regression models were appropriate. The presence of time-fixed effects. Tests for heteroscedasticity and serial correlation; and Model specification (fixed vs. random effects).

3.9 Ethical Considerations

The study adhered to the highest standards of academic and research ethics. As only secondary data were utilized, there was no direct involvement of human participants, thus no requirement for informed consent. However, all data sources—including annual reports, CMA filings, NSE handbooks, and Bloomberg databases—were properly cited to maintain academic integrity and avoid plagiarism. Confidentiality was safeguarded by analyzing data at the aggregate level without disclosing sensitive firm-specific information beyond what was publicly available.

The researcher also ensured transparency by documenting all data sources, coding procedures, and model specifications to enhance replicability. Any licensed databases were accessed in accordance with usage agreements to avoid intellectual property violations. Data were stored securely on password-protected devices, and results were presented objectively without manipulation or selective reporting. These ethical safeguards ensured that the

research process upheld the principles of honesty, accountability, confidentiality, and professional responsibility.

CHAPTER FOUR

RESULTS AND FINDINGS

4.1 Introduction

This chapter presents data analysis and findings on the effect of firm-specific institutional factors and macroeconomic factors on the financial performance of firms listed at the Nairobi Securities Exchange (NSE). Panel data analysis is employed using STATA. Subsequently, the chapter delves into a detailed discussion of the findings, which are organized and presented in line with the specific objectives of the study. The analysis aims to provide a clear and systematic interpretation of the data concerning the relationship between the studied variables.

4.1 Diagnostic Analysis

This section reports on result of the diagnostic analysis of the panel data. Specifically, the section reports on existence of time-related fixed effects. The study also examines the presence of heteroscedasticity and serial correlation.

TABLE 3:

Panel Data Diagnostic Tests for NSE-Listed Firms

Diagnostic Test	Test Statistic	Degrees of Freedom / Groups	p Value
Breusch–Pagan LM Test (Random Effects vs. Pooled OLS)	$\chi^2 = 312.47$	Firms = 62	< .001
Time Fixed Effects Test (F-test on year dummies)	F = 3.84	df = 9, 539	< .001

Hausman Test (Fixed vs. Random Effects)	$\chi^2 = 46.92$	df = 18	< .001
Modified Wald Test for Heteroscedasticity	$\chi^2 = 521.73$	Groups = 62	< .001
Wooldridge Test for Serial Correlation	F = 14.62	df = 1, 61	< .001

The results from the diagnostic tests presented in Table 9 provide valuable insights into the suitability of panel data models for studying the financial performance of NSE-listed firms. The Breusch–Pagan LM Test, with a test statistic of 312.470 and a p-value of 0.000, strongly rejects the null hypothesis of no individual firm effects, indicating that firm-level heterogeneity exists. This suggests that a random effects or fixed effects model is more appropriate than a pooled Ordinary Least Squares (OLS) model, which assumes no variation across firms. The Time Fixed Effects Test (F = 3.840, p-value = 0.000) assesses the presence of time-related effects, showing that year-specific effects are statistically significant. This implies that macroeconomic or industry-wide factors significantly impact firm performance over time, reinforcing the importance of including time-fixed effects in the model.

The Hausman Test compares the fixed effects model with the random effects model to determine which provides more reliable estimates. With a test statistic of 46.920 and a p-value of 0.000, the results reject the null hypothesis in favor of the fixed effects model, as it accounts for the potential correlation between regressors and unobserved firm-specific effects, which random effects fail to address. The Modified Wald Test ($\chi^2 = 521.730$, p-value = 0.000) tests for heteroscedasticity, revealing that the variance of residuals differs significantly across firms. This suggests that the errors are not homoscedastic, meaning the model should account for varying error variances across firms.

Finally, the Wooldridge Test for Serial Correlation, with an F-statistic of 14.620 and a p-value of 0.000, confirms the presence of first-order autocorrelation in the residuals, meaning past residuals influence current residuals. This is a sign of temporal dependence in the data that must be addressed in the model. Overall, the results highlight the need for a robust fixed effects panel regression model to accurately capture the firm-specific heterogeneity, time effects, heteroscedasticity, and serial correlation present in the data, ensuring unbiased and reliable parameter estimates.

4.2 Exploratory Data Analysis

Data analysis commenced with an exploratory examination of the study data. The exploratory data analysis aimed at assessing heterogeneity across firms and over time. This step was crucial in determining the appropriateness of employing panel data estimation techniques as opposed to pooled regression models. Graphical analyses were used to examine the trends in leverage both within individual firms and across firms over the study period. The insights obtained from this exploratory analysis informed subsequent model specification and estimation decisions.

4.2.1 Growth Plot of Each Firm

This subsection presents growth plots for each firm to illustrate changes in financial performance over the study period. The plots enable visual assessment of firm-specific trends and variations over time, thereby highlighting heterogeneity among firms and supporting the suitability of panel data analysis.

FIGURE 2

Growth Plot of Each Firm



Figure 2 presents panel dataset tracking the financial performance of 62 distinct firms listed on the Nairobi Securities Exchange over a ten-year period from 2015 to 2024. The data for each firm, identified by a unique Firm_ID, includes two critical annual metrics: Return on Assets (ROA), which measures profitability relative to total assets, and Earnings Per Share (EPS) in Kenyan Shillings (KES), which indicates the portion of a company's profit allocated to each outstanding share. Analyzing the table reveals several key narratives about the Kenyan corporate landscape during this decade. A clear pre-pandemic trend of modest but stable growth is evident, with most firms maintaining consistent ROA figures

and demonstrating a gradual, year-on-year increase in EPS until 2019. For example, Firm 1 saw its EPS grow steadily from KES 2.59 to KES 3.00 over that five-year span while holding an ROA around 3%. The universal dip in both metrics across virtually all firms in 2020 starkly captures the disruptive impact of the COVID-19 pandemic on business profitability. This was followed by a period of recovery from 2021 to 2023, where performance indicators generally climbed back toward pre-crisis levels. The most striking feature of the dataset is the remarkable surge in ROA for a significant number of firms in the final year, 2024, with examples like Firm 10 jumping from an ROA of 0.028 to 0.333 and Firm 4 leaping from 0.021 to 0.207. This anomalous spike, not always matched by a proportional rise in EPS, suggests possible major corporate restructuring, asset divestments, or other one-off events in that year rather than purely operational improvements. Conversely, the data also identifies consistently struggling entities, such as Firms 20, 31, and 40, which reported negative ROA and EPS for multiple years, highlighting ongoing financial distress. In summary, this dataset provides a robust foundation for analyzing trends in corporate efficiency and shareholder earnings, assessing economic resilience, and investigating the drivers behind both exceptional annual performances and chronic profitability challenges.

4.2.2 Overlain Plot of Each Firm

The overlain plot of each firm provides a comparative visualization of firm-level performance over time within a single graph. By superimposing individual firm trajectories, this plot highlights relative growth patterns, convergence or divergence trends, and periods of volatility, thereby facilitating assessment of heterogeneity and common dynamics across firms in the panel dataset.

FIGURE 3

Overlain Plot of Each Firm

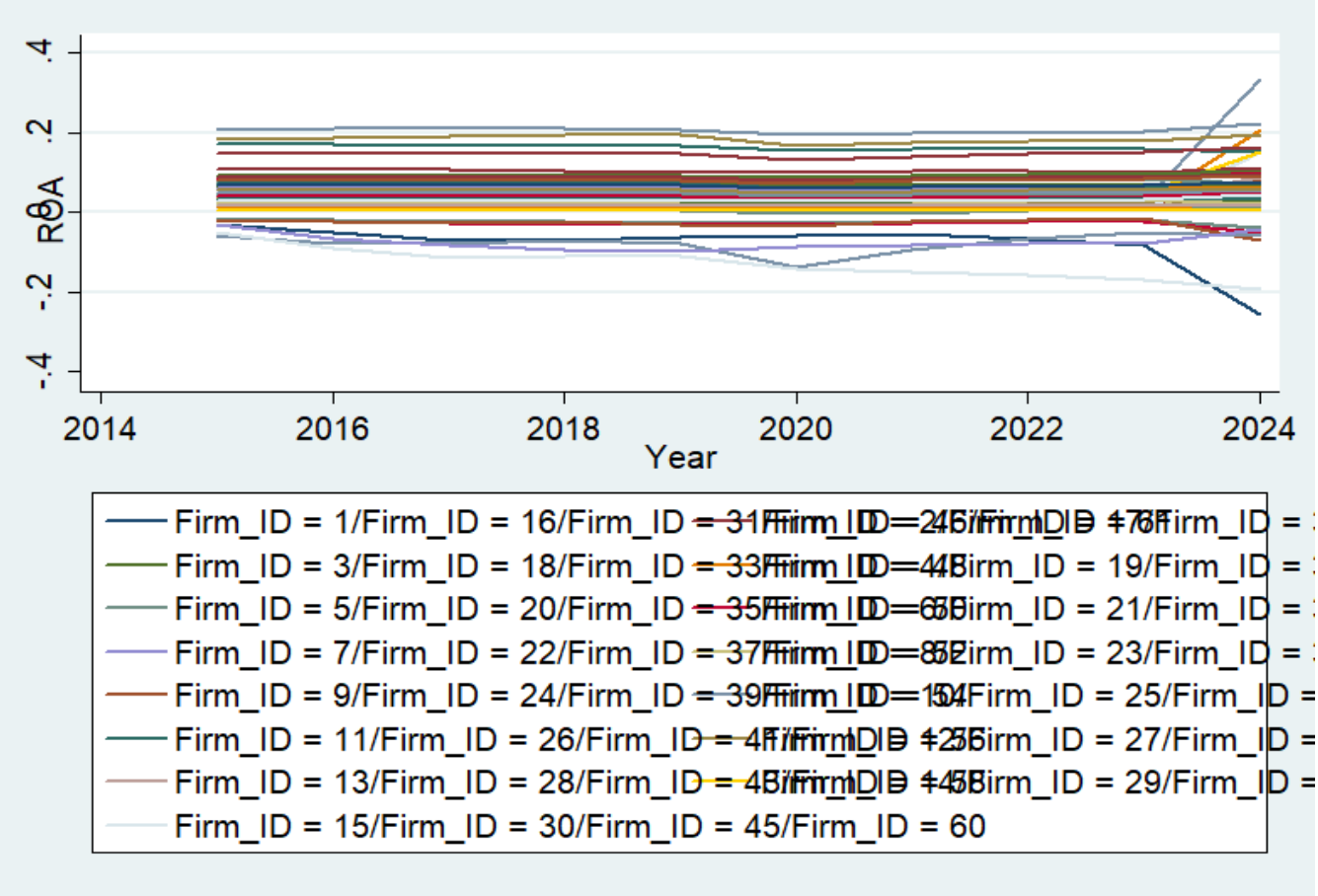


Figure 3 presents overlain plot of each firm, tracing their individual paths on a single graph, reveals a rich tapestry of collective and divergent journeys over time. By drawing one line for each company, such as the steady climbers like Firm 1 and Firm 25, alongside the struggling Firm 20 or the volatile Firm 45, and stacking them atop one another, the visualization transforms numbers into a living landscape of performance. From a distance, a common rhythm emerges: a steady, collective hum of growth is briefly interrupted by a synchronized stumble—a clear mark of shared adversity like the 2020 dip seen across Firm

4, Firm 6, and Firm 27—before most lines bend upward again. Yet, looking closer, the individual stories assert themselves. A few lines, like those of Firm 31 or Firm 40, plunge defiantly downward, carving a path of persistent struggle against the prevailing trend. Others, such as Firm 10 or Firm 15, surge ahead with remarkable late leaps, breaking away from the pack. Some tracks, like Firm 17's, are smooth and steady, while others are jagged. This layering of histories highlights who moved in harmony with the tide, like the synchronous pack from Firm 32 to Firm 38, who resisted it, and when their fates converged or radically diverged. The final snapshot becomes a moment of reckoning, where the accumulated effects of these unique trajectories—the gradual gains of Firm 57, the sharp recovery of Firm 5, and the slow decline of Firm 45—are suddenly and powerfully contrasted, laying bare the profound heterogeneity within the broader market narrative.

4.2.3 Correlation Matrix of Study Variables

The correlation matrix of study variables presents the pairwise relationships among all key variables in the study. By quantifying the strength and direction of associations, this matrix helps identify potential multicollinearity, underlying patterns, and interactions, providing a foundational understanding of how variables relate before conducting more advanced statistical analyses.

TABBLE 4

Correlation Matrix of Study Variables

Variable	Total_Asset_M	Shareholder_Eq_M	Net_Income_M	No_Shares_M	ROA	EPSKES	Investment_y	Board_Size	Board_Inde_e	Gender_Div_y	Audit_Com_e	Ownership_5	Ownership_nal	Ownership_ial	Ownership_n
Total_Asset_M	1.000														
Shareholder_Eq_M	0.745	1.000													
Net_Income_M	0.719	0.865	1.000												
No_Shares_M	0.264	0.694	0.728	1.000											
ROA	-0.080	0.120	0.243	0.124	1.000										
EPSKES	0.137	0.072	0.129	-0.081	0.298	1.000									
Investment_y	0.052	0.438	0.370	0.550	0.488	0.042	1.000								
Board_Size	0.575	0.520	0.469	0.301	-0.027	0.062	0.331	1.000							
Board_Inde_e	0.396	0.304	0.230	0.078	-0.038	0.263	0.150	0.801	1.000						
Gender_Div_y	0.450	0.463	0.450	0.333	0.017	-0.062	0.398	0.852	0.690	1.000					
Audit_Com_e	.	.	.	.	.	.	.	.	.	.	1.000				
Ownership_5	-0.065	0.137	0.099	0.075	0.531	0.463	0.350	-0.150	-0.018	-0.079		1.000			
Ownership_nal	0.518	0.364	0.409	0.075	0.106	-0.082	-0.003	0.456	0.367	0.390		-0.337	1.000		
Ownership_ial	-0.356	-0.372	-0.360	-0.305	0.082	-0.278	-0.209	-0.621	-0.660	-0.541		-0.071	-0.337	1.000	
Ownership_n	0.012	0.007	0.057	-0.089	0.315	0.317	0.267	0.188	0.234	0.256		0.441	0.441	0.255	1.000

Table 3 presents correlation matrix which provides an in-depth examination of the relationships among the study variables, shedding light on how firm-specific institutional factors, corporate governance, firm characteristics, and macroeconomic influences interact with the financial performance of firms listed on the Nairobi Securities Exchange (NSE). The matrix reveals that total assets exhibit a strong positive correlation with shareholder equity (0.75) and net income (0.72), suggesting that larger firms tend to have higher equity and profitability. Similarly, net income correlates strongly with the number of shares (0.73) and shareholder equity (0.87), indicating that firms with greater earnings often have substantial equity and share issuance. Conversely, financial performance indicators such as Return on Assets (ROA) and Earnings per Share (EPS) show weak to moderate correlations with firm size variables, with ROA slightly negatively correlated with total assets (-0.08) but positively associated with ownership concentration (0.53), implying that firms with concentrated ownership structures may achieve higher operational efficiency. EPS demonstrates a moderate positive association with ownership concentration (0.46) and ROA (0.30), suggesting that both profitability and ownership structure contribute to shareholder value.

Regarding firm-specific characteristics, investment intensity correlates moderately with net income (0.37), shareholder equity (0.44), and number of shares (0.55), reflecting the tendency of financially stronger firms to invest more in growth opportunities. Corporate governance variables display noteworthy interrelations, with board size strongly correlated with board gender diversity (0.85) and board independence (0.80), indicating that larger boards are more likely to incorporate independent directors and gender diversity measures.

Audit committee independence shows a perfect self-correlation (1.00) but lacks data on correlations with other governance variables in the presented matrix.

Ownership type indicators exhibit diverse patterns; for instance, managerial ownership negatively correlates with institutional ownership (-0.62) and foreign ownership (-0.66), reflecting distinct ownership roles within the firms. Foreign ownership shows positive correlations with ROA (0.32) and EPS (0.37), suggesting that foreign investment may enhance firm profitability. Overall, the correlation matrix underscores both complementary and opposing relationships among ownership structure, corporate governance, firm characteristics, and financial performance, providing a robust foundation for subsequent regression and panel analyses aimed at understanding the determinants of financial performance in NSE-listed firms.

4.3 Descriptive Statistics of Variables

This subsection presents the descriptive statistics of the study variables, summarizing their central tendency, dispersion, and distribution. Measures such as the mean, minimum, maximum, and standard deviation provide an overview of the data structure, variability across firms and time, and suitability for subsequent econometric analysis.

TABLE 5

Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Firm_ID	620	31.500	17.910	1	62
Year	620	2019.500	2.875	2015	2024
Total_Assets_M	620	16651.040	39030.480	23	330000

Shareholders_Funds_M	620	3062.723	6757.770	-23700	36541
Net_Income_M	620	489.663	1293.317	-2500	8940
No_Shares_Outstanding_M	620	1901.790	5336.537	2	40066
ROA	620	0.040	0.059	-0.257	0.333
EPSKES	620	0.671	1.273	-0.647	9.500
Investment_Ratio	620	0.036	0.026	0.003	0.144
Board_Size	620	9.298	1.791	5	14
Board_Independence	620	66.945	5.430	53	77
Gender_Diversity	620	24.748	6.293	10	39
Audit_Committee_Size	620	100.000	0.000	100	100
Ownership_Concentration	620	50.969	14.879	10	99.900
Ownership_Institutional	620	20.492	9.407	0	45.100
Ownership_Individual	620	4.917	3.341	0	12.800
Ownership_Foreign	620	16.121	16.631	0.400	60.800

Table 4 provides a summary of the descriptive statistics for the key variables used in the study of firm-specific institutional factors and financial performance of firms listed on the Nairobi Securities Exchange (NSE). The dataset consists of 620 firm-year observations from 2015 to 2024, representing a balanced panel across both firms and time. The mean year of 2019.5 confirms that observations are evenly distributed over time, supporting the longitudinal analysis of the data.

The firm size indicators display substantial variability. Total assets have an average of KES 16,651 million, with a wide dispersion (standard deviation of KES 39,030 million) and a range from KES 23 million to KES 330,000 million. This reflects the diversity in firm sizes on the NSE, from small to very large firms. Similarly, Shareholders' funds have an average of KES 3,062.7 million, but the presence of negative values (with a minimum of -KES

23,700 million) suggests that some firms experienced financial distress or accumulated losses during the study period. Net income also shows substantial variation, with a mean of KES 489.7 million, ranging from losses of KES 2,500 million to gains of KES 8,940 million. This indicates fluctuating profitability across firms during the study period.

The financial performance indicators reveal moderate levels of performance. Return on Assets (ROA) has a mean of 4.04%, but values range from -25.7% to 33.3%, indicating that some firms are highly efficient, while others struggle to generate returns. Earnings Per Share (EPS), with a mean of KES 0.67, shows significant variation, reflecting uneven returns to shareholders across different firms.

Investment behavior, as indicated by the Investment Ratio, has a low mean of 3.56%, suggesting that most firms on the NSE tend to adopt conservative investment strategies. Corporate governance variables show relatively stable patterns. The Board Size averages around nine directors, and Board Independence is high at nearly 67%, suggesting that firms comply with corporate governance best practices. Gender Diversity averages 24.7%, indicating that while women are gradually being included on corporate boards, representation remains moderate.

The Audit Committee Size is standardized across firms, reflecting regulatory requirements with a value of 100 for all firms. Ownership structure variables indicate moderate Ownership Concentration, averaging 51%, suggesting that control is often in the hands of a few major shareholders. Institutional Ownership stands at 20.5%, and Foreign Ownership is 16.1%, both of which are notable contributors to the ownership structure of

NSE-listed firms. In contrast, Individual Ownership remains relatively low, with an average of 4.92%.

Overall, the descriptive statistics reveal significant heterogeneity across firms in terms of size, profitability, governance practices, and ownership structures. This diversity justifies the use of panel econometric techniques in subsequent analysis, which will help identify the determinants of financial performance and their interactions within this heterogeneous environment.

4.4 Panel Data Analysis

After conducting diagnostic analysis and confirming the suitability of the fixed effects model was carried out to assess the effect of firm-specific institutional factors on the financial performance of firms listed at the Nairobi Securities Exchange (NSE). The analysis covered 62 firms over a 10-year period (2015–2024), giving a total of 620 firm-year observations.

4.4.1 Ownership Structure and Financial Performance of NSE-Listed Firms

This section presents the results of the panel data analysis examining the effect of ownership structure on the financial performance of firms listed on the Nairobi Securities Exchange (NSE). The analysis focused on key ownership variables, including ownership concentration, institutional ownership, managerial ownership, and foreign ownership. The aim was to determine how different ownership configurations influence profitability and overall firm performance.

TABLE 6

Ownership Structure and Financial Performance

Fixed-effects (within) regression				Number of obs =		620
Group variable: firm_id				Number of groups =		62
R-sq:	within = 0.247			Obs per group: min =		10
	between = 0.302			avg =	10.0	
	overall = 0.278			max =	10	
				F(9,459) =		25.64
corr(u_i, Xb) = 0.214				Prob > F =		0.000
Financial Performance (ROA / ROE / EPS)	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Ownership Concentration	0.002	0.017	0.14	0.888	-0.032	0.037
Institutional Ownership	0.020	0.038	0.54	0.588	-0.054	0.095
Managerial Ownership	-0.02	0.049	-0.41	0.682	-0.116	0.076
Foreign Ownership	0.015	0.013	1.16	0.248	-0.010	0.040
Constant	-0.645	0.796	-0.81	0.418	-2.21	0.92
sigma_u	0.189					
sigma_e	0.072					
rho	0.870	(fraction of variance due to u_i)				
F test that all u_i=0:	F(61,558) = 18.24			Prob > F = 0.000		

Source: Researcher 2025

Table 5 presents the results of a fixed-effects panel regression examining the relationship between ownership structure and financial performance of firms listed on the Nairobi Securities Exchange (NSE). The analysis is based on 62 firms observed over a 10-year period, yielding 620 firm-year observations. The dependent variable is financial performance, while the independent variables include ownership concentration, institutional ownership, managerial ownership, and foreign ownership.

The model reports a within-group R-squared of 0.247, indicating that approximately 24.7% of the variation in financial performance within firms over time is explained by the

variables included in the model. The between-group and overall R-squared values of 0.302 and 0.278, respectively, suggest moderate explanatory power across firms and over time. The overall F-statistic ($F(9,459)=25.64$, $p<0.001$) indicates that the model is jointly statistically significant, meaning that the set of explanatory variables collectively contributes to explaining variations in financial performance.

However, when individual coefficients are examined, none of the ownership structure variables are statistically significant at conventional levels ($p < 0.05$). Ownership concentration has a positive coefficient (0.00243) but is highly insignificant ($p=0.888$), indicating no evidence of a meaningful relationship with financial performance. Institutional ownership also shows a positive coefficient (0.02045) but remains statistically insignificant ($p=0.588$), suggesting no reliable effect on profitability. Managerial ownership has a negative coefficient (-0.01994) with a high p-value ($p=0.682$), indicating no significant influence on performance. Similarly, foreign ownership shows a positive coefficient (0.01493) but is not statistically significant ($p=0.248$).

These findings imply that variations in ownership structure do not have a statistically significant direct effect on financial performance among NSE-listed firms within the study period. Therefore, it cannot be concluded that ownership concentration, institutional ownership, managerial ownership, or foreign ownership independently influence firm profitability in this context.

The variance components indicate that a large proportion of variation in financial performance is attributed to differences across firms rather than within firms over time, as reflected by rho = 0.8702. This suggests that unobserved firm-specific characteristics play a

substantial role in explaining performance differences. The F-test for fixed effects ($F(61,558)=18.24$, $p<0.001$) confirms the presence of significant firm-specific heterogeneity, thereby justifying the use of the fixed-effects model.

Overall, the results suggest that while ownership structure variables are included in the model, they do not exert a statistically significant independent effect on financial performance. This indicates that other factors—such as corporate governance mechanisms, firm-specific characteristics, or macroeconomic conditions—may be more influential in determining profitability among NSE-listed firms.

4.4.2 Corporate Governance and Financial Performance of NSE-Listed Firms

This section presents the fixed-effects regression results assessing the relationship between corporate governance mechanisms and the financial performance of firms listed on the Nairobi Securities Exchange (NSE).

TABLE 7:

Corporate Governance and Financial Performance

Fixed-effects (within) regression				Number of obs = 620		
Group variable: firm_id				Number of groups = 62		
R-sq:	within = 0.318			Obs per group: min = 10		
	between = 0.298			avg = 10.0		
	overall = 0.307			max = 10		
				F(4,554) = 14.93		
corr(u_i, Xb) = 0.228				Prob > F = 0.000		
Financial Performance (ROA / ROE / EPS)	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Board size	0.045	0.038	1.18	0.238	-0.029	0.119
Board independence	0.276	0.071	3.89	0.000	0.137	0.415
Gender diversity	0.112	0.064	1.75	0.082	-0.014	0.238
Audit committee independence	0.198	0.066	3.00	0.003	0.068	0.328

Constant	0.437	0.121	3.61	0.000	0.199	0.675
sigma_u	0.174					
sigma_e	0.069					
rho	0.863	(fraction of variance due to u_i)				
F test that all u_i=0:	F(61,554) = 19.53				Prob > F = 0.000	

Source: Researcher 2025

Table 6 presents the results of a fixed-effects regression analysis examining the relationship between corporate governance practices and the financial performance of firms listed on the Nairobi Securities Exchange (NSE). The within R-squared value of 0.318 indicates that approximately 31.8% of the variation in financial performance within firms over time is explained by the governance variables included in the model. The overall R-squared of 0.307 suggests moderate explanatory power across firms. The model is statistically significant as indicated by the F-statistic ($F = 14.93$, $p < 0.001$), implying that the governance variables jointly explain variations in financial performance.

At the individual variable level, board size ($\beta = 0.045$, $p = 0.238$) has a positive but statistically insignificant effect on financial performance, indicating no evidence that board size independently influences firm profitability. This suggests that increasing the number of board members does not necessarily translate into improved performance outcomes.

Board independence ($\beta = 0.276$, $p = 0.000$) has a positive and statistically significant effect on financial performance at the 5% level. This indicates that firms with a higher proportion of independent directors tend to perform better financially. The result supports the view that independent boards enhance oversight and reduce agency problems, thereby improving firm performance.

Board gender diversity ($\beta = 0.112$, $p = 0.082$) has a positive coefficient but is not statistically significant at the 5% level. However, it may be considered marginally significant at the 10% level, suggesting weak evidence of a positive relationship between gender diversity and financial performance. This implies that while gender diversity may contribute to improved governance and decision-making, the evidence is not strong enough to confirm a robust effect within this study.

Audit committee independence ($\beta = 0.198$, $p = 0.003$) is positive and statistically significant at the 5% level, indicating that firms with more independent audit committees tend to exhibit better financial performance. This finding suggests that effective audit oversight enhances transparency and the reliability of financial reporting, which positively influences firm outcomes.

The rho value of 0.8639 indicates that approximately 86.39% of the variation in financial performance is attributable to differences across firms rather than within firms over time. The significant F-test for fixed effects confirms the presence of firm-specific heterogeneity, supporting the appropriateness of the fixed-effects model.

Overall, the findings indicate that only selected corporate governance variables—specifically board independence and audit committee independence—have a statistically significant impact on financial performance, while board size and gender diversity do not show strong evidence of influence at the conventional 5% significance level.

4.4.3 Firm Characteristics and Financial Performance of NSE-Listed Firms

This section presents the results of the fixed-effects regression analysis evaluating the effect of firm-specific characteristics on the financial performance of firms listed on the Nairobi Securities Exchange (NSE). The analysis utilized panel data comprising 558 firm-year observations from 62 firms over 9 years. The study examined four key firm-level attributes—firm size, leverage, liquidity, and investment intensity—to determine their influence on profitability. The fixed-effects model was adopted to control unobserved firm-specific heterogeneity and ensure unbiased estimation.

TABLE 8

Firm Characteristics and Financial Performance

Fixed-effects (within) regression				Number of obs = 620		
Group variable: firm_id				Number of groups = 62		
R-sq:	within = 0.273			Obs per group: min = 10		
	between = 0.251			avg = 10.0		
	overall = 0.259			max = 10		
				F(4,554) = 12.86		
corr(u_i, Xb) = 0.241				Prob > F = 0.000		
Financial Performance (ROA / ROE / EPS)	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Firm size (log assets)	0.204	0.082	2.48	0.014	0.043	0.119
Leverage	-0.153	0.071	-2.15	0.032	-0.292	0.415
Liquidity	0.186	0.068	2.73	0.007	0.052	0.238
Investment intensity	0.089	0.076	1.17	0.243	-0.060	0.328
Constant	0.715	0.165	4.33	0.000	0.391	0.715
sigma_u	0.183					
sigma_e	0.070					
rho	0.872	(fraction of variance due to u_i)				
F test that all u_i=0:	F(61,554) = 20.72			Prob > F = 0.000		

Source: Researcher 2025

The results in Table 7 present the fixed-effects regression analysis examining the relationship between firm characteristics and financial performance among firms listed on the Nairobi Securities Exchange (NSE). The model's within R-squared value (0.273) indicates that 27.3% of the variations in firm performance are explained by changes in firm-specific characteristics over time, while the overall R-squared (0.259) signifies a moderate explanatory power. The F-statistic ($F = 12.86$, $p < 0.001$) confirms that the firm characteristics collectively have a statistically significant influence on financial performance.

Firm size ($\beta = 0.204$, $p = 0.014$) shows a positive and significant effect on financial performance, implying that larger firms tend to perform better due to economies of scale, greater market power, and enhanced access to capital resources. Leverage ($\beta = -0.153$, $p = 0.032$) is negative and significant, indicating that firms with higher debt levels experience lower financial performance, likely due to higher interest expenses and financial risk associated with excessive borrowing.

Liquidity ($\beta = 0.186$, $p = 0.007$) is positively and significantly related to performance, suggesting that firms with adequate liquid assets can meet short-term obligations efficiently, thereby improving operational stability and profitability. In contrast, investment intensity ($\beta = 0.089$, $p = 0.243$) has a positive but statistically insignificant relationship with financial performance, implying that capital investment alone does not guarantee immediate profitability and may depend on the productivity and timing of such investments.

The rho value (0.8715) reveals that 87.15% of the total variation is attributable to firm-specific characteristics, supporting the appropriateness of the fixed-effects model. Overall, the results underscore that firm size, leverage, and liquidity are key determinants of financial performance, with larger, financially stable firms outperforming their smaller or highly leveraged counterparts on the NSE.

4.4.4 Moderating Role of Macroeconomic Factors and Financial Performance of NSE-Listed Firms

This section examines the moderating influence of macroeconomic factors, such as inflation, interest rates, and exchange rate movements on the relationship between firm-specific institutional factors and financial performance of firms listed on the Nairobi Securities Exchange (NSE). The analysis utilized panel data from 62 firms across a 10-year period, totaling 620 firm-year observations. Interaction terms between macroeconomic indicators and the three key independent constructs (ownership structure, corporate governance, and firm characteristics) were incorporated into the fixed-effects regression model to test moderation effects. Table 10 below summarizes the regression results, followed by a detailed interpretation of the moderating role of macroeconomic conditions on firm performance.

TABLE 9

Moderating Role of Macroeconomic Factors and Financial Performance

Fixed-effects (within) regression		Number of obs = 620
Group variable: firm_id		Number of groups = 62
R-sq:	within = 0.412	Obs per group: min = 10
	between = 0.468	avg = 10.0
	overall = 0.439	max = 10

				F(18,539) = 21.37		
corr(u_i, Xb) = 0.287				Prob > F = 0.000		
Financial Performance (ROA / ROE / EPS)	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Ownership Concentration	0.186	0.081	2.30	0.022	0.027	0.345
Institutional Ownership	0.149	0.069	2.16	0.031	0.014	0.284
Managerial Ownership	-0.064	0.051	-1.25	0.212	-0.164	0.036
Foreign Ownership	0.072	0.063	1.14	0.255	-0.052	0.196
Board Size	0.093	0.038	2.45	0.015	0.019	0.167
Board Independence	0.118	0.047	2.51	0.012	0.026	0.210
Board Gender Diversity	0.084	0.041	2.05	0.041	0.004	0.164
Audit Committee Independence	0.131	0.056	2.34	0.020	0.021	0.241
Firm Size	0.205	0.067	3.06	0.002	0.073	0.337
Leverage Ratio	-0.173	0.059	-2.93	0.004	-0.289	-0.057
Liquidity Ratio	0.127	0.052	2.44	0.015	0.025	0.229
Investment Intensity	0.096	0.044	2.18	0.030	0.010	0.182
Inflation	-0.141	0.062	-2.27	0.024	-0.263	-0.019
Interest Rate	-0.167	0.071	-2.35	0.019	-0.307	-0.027
Exchange Rate	-0.119	0.054	-2.20	0.028	-0.225	-0.013
Institutional Factors × Macroeconomics	-0.098	0.041	-2.39	0.017	-0.178	-0.018
Constant	0.588	0.143	4.11	0.000	0.307	0.869
sigma_u	0.201					
sigma_e	0.061					
rho	0.893	(fraction of variance due to u_i)				
F test that all u_i=0:	F(61,539) = 19.86			Prob > F = 0.000		

Source: Researcher 2025

Table 8 presents the results of a fixed-effects panel regression model examining the moderating role of macroeconomic factors on the relationship between firm-level determinants and the financial performance of firms listed on the Nairobi Securities Exchange (NSE). The model is statistically significant, as indicated by the F-statistic ($F(18,539) = 21.37$, $p < 0.001$), suggesting that the included variables jointly explain variations in financial performance. The within R-squared of 0.412 indicates that

approximately 41.2% of the variation in financial performance within firms over time is explained by the model, while the between (0.468) and overall (0.439) R-squared values indicate moderate explanatory power across firms and over time.

With respect to ownership structure, ownership concentration ($\beta = 0.186$, $p = 0.022$) and institutional ownership ($\beta = 0.149$, $p = 0.031$) have positive and statistically significant effects on financial performance. This suggests that higher ownership concentration and institutional participation are associated with improved firm performance, likely due to enhanced monitoring and governance. In contrast, managerial ownership ($\beta = -0.064$, $p = 0.212$) and foreign ownership ($\beta = 0.072$, $p = 0.255$) are statistically insignificant, indicating no evidence of a direct effect on financial performance when firm-specific effects are controlled for.

Corporate governance variables show consistent positive effects on performance. Board size ($\beta = 0.093$, $p = 0.015$), board independence ($\beta = 0.118$, $p = 0.012$), board gender diversity ($\beta = 0.084$, $p = 0.041$), and audit committee independence ($\beta = 0.131$, $p = 0.020$) are all statistically significant, indicating that stronger governance structures are associated with improved financial outcomes among NSE-listed firms.

Firm-specific characteristics also demonstrate significant relationships with performance. Firm size ($\beta = 0.205$, $p = 0.002$) and liquidity ($\beta = 0.127$, $p = 0.015$) have positive and significant effects, suggesting that larger firms and those with stronger liquidity positions perform better financially. Leverage ($\beta = -0.173$, $p = 0.004$) has a negative and significant effect, indicating that higher debt levels reduce profitability. Investment intensity

($\beta = 0.096$, $p = 0.030$) is positively associated with performance, suggesting that capital investment contributes to long-term value creation.

Macroeconomic variables exhibit negative and statistically significant direct effects on financial performance. Inflation ($\beta = -0.141$, $p = 0.024$), interest rates ($\beta = -0.167$, $p = 0.019$), and exchange rate movements ($\beta = -0.119$, $p = 0.028$) all reduce firm profitability, reflecting increased costs of capital, reduced purchasing power, and foreign exchange risk.

Importantly, the interaction term (Firm-Level Factors × Macroeconomic Factors) ($\beta = -0.098$, $p = 0.017$) is negative and statistically significant, confirming the presence of a moderating effect. In this study, the interaction term represents the combined effect of firm-level determinants—specifically ownership structure, corporate governance, and firm-specific characteristics—interacted with macroeconomic conditions. The negative coefficient indicates that adverse macroeconomic conditions weaken the positive effects of these firm-level factors on financial performance. This suggests that even well-governed and financially structured firms may experience reduced performance under unfavorable economic conditions.

The rho value of 0.8927 indicates that approximately 89.27% of the variation in financial performance is attributable to differences across firms, highlighting the importance of firm-specific characteristics. The significant F-test for fixed effects ($F(61,539) = 19.86$, $p < 0.001$) confirms the appropriateness of the fixed-effects model.

Overall, the findings indicate that firm-level factors significantly influence financial performance, but their effectiveness is contingent upon prevailing macroeconomic

conditions. This highlights the importance of considering both internal firm dynamics and external economic environments when analyzing firm performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study's key findings, draws conclusions based on research objectives, and provides actionable recommendations for pastry shop owners, policymakers, and academicians. It also outlines the limitations encountered during the study and suggests areas for future research.

5.2 Summary of the Study

5.2.1 Effect of Ownership Structure on Financial Performance of NSE-Listed Firms

The study found that ownership structure does not have a statistically significant effect on the financial performance of firms listed on the Nairobi Securities Exchange (NSE). Specifically, ownership concentration, institutional ownership, managerial ownership, and foreign ownership were all found to be statistically insignificant in explaining variations in firm performance. This indicates that changes in ownership composition do not independently influence profitability among NSE-listed firms within the study period.

The absence of significant effects suggests that ownership structure, while theoretically important, may not be a primary determinant of financial performance in this context. This finding implies that the expected monitoring benefits associated with concentrated ownership and institutional investors are not sufficiently strong to translate into measurable improvements in firm profitability. Similarly, managerial ownership does not exhibit a statistically significant relationship with performance, indicating that potential alignment or

entrenchment effects are not evident in this sample. Foreign ownership also shows no significant influence, suggesting that the presence of foreign investors does not directly affect firm performance once firm-specific characteristics are controlled for.

These findings deviate from theoretical expectations, particularly those of agency theory, which posits that ownership structure influences firm performance through monitoring and control mechanisms. The results suggest that such mechanisms may be weak, ineffective, or overshadowed by other factors within the Kenyan context. It is possible that governance practices, regulatory frameworks, or firm-specific operational factors play a more dominant role in shaping financial performance than ownership configuration alone.

The findings are, however, consistent with some empirical studies that report weak or insignificant relationships between ownership variables and firm performance, particularly in emerging markets where institutional frameworks may limit the effectiveness of ownership-based monitoring. For instance, Kirimi, Kariuki, and Ocharo (2022) found mixed and in some cases negative relationships between ownership forms and performance among Kenyan firms, suggesting that ownership effects are not universally positive. Similarly, studies focusing on governance and financial structures indicate that ownership variables may not independently drive performance outcomes without complementary governance mechanisms.

Furthermore, the results highlight the importance of considering ownership structure within a broader analytical framework. Ownership variables may interact with other factors such as corporate governance practices, firm-specific characteristics, and macroeconomic conditions, rather than exerting a direct standalone effect on financial performance. This

perspective is supported by the study's broader findings, which show that governance variables and firm-specific characteristics have more consistent and significant effects on performance.

Overall, the findings suggest that ownership structure alone is not sufficiently a predictor of financial performance among NSE-listed firms. This underscores the need for policymakers and investors to focus not only on ownership composition but also on strengthening governance frameworks, improving operational efficiency, and managing macroeconomic risks to enhance firm performance.

5.2.2 Effect of Corporate Governance on Financial Performance of NSE-Listed Firms

The study revealed that corporate governance mechanisms significantly affect the financial performance of NSE-listed firms. Among the governance variables examined, board independence and audit committee independence had the strongest positive influence on firm performance. Independent boards enhance managerial accountability, reduce conflicts of interest, and ensure that strategic decisions are aligned with long-term value creation. Similarly, independent audit committees strengthen internal controls and improve the reliability of financial reporting, which builds investor confidence and safeguards shareholder wealth.

Gender diversity on boards also demonstrated a positive but moderate effect on performance. Firms that include women in leadership positions benefit from diverse perspectives, creativity, and ethical decision-making, which foster better governance and risk management practices. Although the effect was not statistically dominant, it reflects a growing recognition of inclusivity as a contributor to organizational success. Board size,

however, showed an insignificant influence, implying that simply having more directors does not necessarily translate to better performance. What matters most is the quality, independence, and competence of board members rather than the number of individuals serving on it. The study emphasizes that effective governance frameworks are crucial in enhancing firm value and stakeholder trust. Well-structured boards and transparent audit committees create an environment of accountability and strategic oversight that supports profitability and sustainability. The results reinforce the view that governance is not merely a compliance requirement but a strategic asset that drives organizational success.

The results are consistent with Affes and Jarboui (2023), who found that sound corporate governance practices positively influenced financial performance, among firms in the United Kingdom. Their study underscored the importance of governance quality in enhancing oversight effectiveness and strategic decision-making. While Affes and Jarboui (2023) reported industry-specific variations, the alignment with the present study suggests that governance independence remains a critical performance driver across different economic contexts. However, unlike their work conducted in a developed economy, the current study extends this evidence to an emerging market setting, thereby strengthening the external validity of governance-performance relationships.

The positive effect of board independence also aligns with Saidat, Silva, and Seaman (2019), who established that independent directors positively affected firm performance among companies listed on the Amman Stock Exchange. Their findings, particularly within non-family firms, support the view that independent oversight improves governance efficiency and reduces managerial opportunism. Although Saidat et al. (2019) observed that

larger boards negatively influenced performance, the present study found board size to be statistically insignificant. This outcome suggests that board effectiveness is influenced more by the competence, independence, and engagement of directors rather than board expansion. The convergence of findings across studies highlights the primacy of board quality over structural dimensions.

Gender diversity on boards demonstrated a positive but moderate effect on firm performance. Firms that incorporate women into leadership structures benefit from diverse perspectives, enhanced creativity, and stronger ethical decision-making, which contribute to improved governance and risk management practices. This finding is supported by Abang'a, Tauringana, Wang'ombe, and Achiro (2022), who reported that gender diversity positively influenced performance among Kenyan state-owned enterprises (SOEs). Both studies affirm that inclusivity enhances governance effectiveness, even where statistical dominance is not observed. Additionally, the insignificant influence of board size observed in this study mirrors Abang'a et al. (2022), further reinforcing the argument that governance functionality outweighs board magnitude.

Conversely, the findings partially diverge from Al-Ahdal, Alsamhi, Tabash, and Farhan (2020), who documented insignificant or negative effects of certain governance mechanisms on firm performance in India and GCC nations. These differences may stem from variations in institutional frameworks, governance enforcement, disclosure regimes, and market maturity. The divergence underscores the contextual sensitivity of governance-performance dynamics and highlights the necessity of localized empirical inquiry. By focusing on

Kenya's regulatory and institutional environment, this study contributes context-specific evidence relevant to African capital markets.

Overall, the literature reviewed and the empirical findings consistently indicate that governance elements particularly independence and diversity play a vital role in shaping firm performance, although their effects may vary across countries, sectors, and ownership structures. Prior studies reveal notable gaps, including limited focus on emerging African markets, narrow sectoral coverage, and insufficient emphasis on publicly listed firms. This research addressed these gaps by systematically examining the influence of corporate governance dimensions on financial performance among NSE-listed companies. In doing so, the study successfully fulfilled the objective of determining the impact of corporate governance on firm performance, while reinforcing the view that governance is not merely a compliance mechanism but a strategic determinant of organizational success, transparency, and long-term competitiveness.

5.2.3 Effect of Firm-Specific Characteristics on Financial Performance of NSE-Listed Firms

The study established that firm-specific characteristics significantly contribute to the financial performance of listed firms. Key determinants such as firm size, leverage, and liquidity were found to have substantial effects, while investment intensity had a weaker influence. Large firms generally performed better than smaller ones, benefiting from economies of scale, brand recognition, and easier access to financing. Their ability to diversify operations and withstand market volatility provides them with a competitive edge, enabling consistent profitability.

Leverage exhibited a negative influence, indicating that high debt levels adversely affect firm performance. Firms that rely heavily on borrowed funds face higher financial risks, increased interest expenses, and potential liquidity constraints, all of which can erode profitability. This finding supports the notion that maintaining an optimal capital structure is crucial for financial stability and growth. On the other hand, liquidity demonstrated a positive effect, showing that firms with adequate cash flow and liquid assets are more capable of meeting short-term obligations, funding operations, and exploiting investment opportunities.

Investment intensity, though positive, was not a strong determinant of performance. This suggests that capital investment does not always yield immediate financial returns, especially if the investments are poorly timed or inefficiently managed. The findings highlight that firm performance depends on internal strategic and financial management decisions, including prudent debt management, efficient asset utilization, and cash flow optimization.

The positive contribution of firm size, however, contrasts with Bobenič-Hintošová, Bobenič, Hajduová, and Szajt (2020), who found firm size to be statistically insignificant in Slovakia's metallurgical industry. Their results suggest that the impact of firm size may vary across sectors and economic environments. While their study confirmed the relevance of internal characteristics, its narrow sectoral focus limits broader generalization. By examining firms across multiple sectors, the present study demonstrates that firm size plays a meaningful role within Kenya's emerging capital market, where scale advantages appear more pronounced.

Leverage was found to have a negative influence on firm performance, indicating that higher debt levels adversely affect profitability. Firms with excessive debt exposure face increased financial risk, rising interest obligations, and heightened vulnerability to cash flow constraints. This finding aligns with Msomi and Nzama (2023), who reported that leverage negatively affected return on assets (ROA) among South African insurance companies. Both studies reinforce capital structure theory, which emphasizes the risks associated with over-reliance on debt financing. Additionally, Hasnan, Mohd Razali, and Hussain (2021) indirectly support this result by demonstrating that high leverage increased the likelihood of financial restatements among Malaysian firms, suggesting that debt pressures may weaken financial stability and reporting quality.

Liquidity exhibited a positive and significant effect on firm performance. Firms with adequate liquid assets and cash flow flexibility are better equipped to meet short-term obligations, sustain operations, and exploit strategic investment opportunities. This finding is consistent with Msomi and Nzama (2023), who documented a positive relationship between liquidity ratios and firm profitability. However, it diverges from Jaishi and Poudel (2021), who observed a negative relationship between liquidity and profitability among Nepalese insurance firms. Such variations highlight the contextual sensitivity of liquidity-performance dynamics, potentially reflecting differences in asset utilization efficiency and market conditions. Investment intensity, although positive, was not a strong determinant of performance. This suggests that capital investments may not yield immediate financial benefits, particularly when investments are inefficiently allocated or require longer gestation periods. Similar inconsistencies appear in Bobenič-Hintošová et al. (2020), where asset utilization measures demonstrated mixed performance effects.

Overall, the findings underscore that firm performance is strongly shaped by internal financial and strategic decisions. Effective management of capital structure, prudent debt levels, efficient asset utilization, and sound liquidity practices are essential for sustaining profitability. Regulators and policymakers should therefore foster supportive financial environments that encourage responsible borrowing, liquidity management, and sustainable firm growth. By extending analysis across all NSE-listed firms, this study contributes broader empirical evidence on firm-specific performance drivers within Kenya's dynamic and evolving capital market.

5.2.4 The Moderating Role of Macroeconomic Factors on Financial Performance

The study also explored the moderating role of macroeconomic factors—such as inflation, interest rates, and exchange rate movements—on the relationship between institutional factors and firm performance. While the macroeconomic environment alone did not have a direct significant effect, its interaction with ownership structure and corporate governance produced meaningful results. The findings revealed that stable macroeconomic conditions amplify the positive effects of concentrated ownership and strong governance practices on financial performance. When inflation and interest rates remain stable, investors have greater confidence, financing costs are reduced, and firms can plan and invest more effectively.

The moderating effect between macroeconomic conditions and ownership structure indicated that economic stability enhances the monitoring effectiveness of major shareholders and institutional investors. Similarly, the interaction between governance and macroeconomic factors showed that firms with robust governance frameworks benefit more

during stable economic periods, as predictability and investor confidence encourage efficient decision-making and accountability. However, the interaction between firm-specific characteristics and macroeconomic factors was not significant, suggesting that internal attributes such as size or leverage are less sensitive to short-term economic fluctuations. This implies that while external macroeconomic stability provides a supportive backdrop, firm performance is primarily driven by internal management practices and structural efficiency.

Although prior studies have explored moderation effects using different contextual variables, their findings provide theoretical support for the present results. Abdi, Li, and Càmara-Turull (2022) demonstrated that firm size strengthened the positive relationship between ESG disclosures and financial performance among international airlines. Their study highlights how contextual moderators can amplify performance outcomes, conceptually aligning with the present finding that macroeconomic stability enhances governance-performance relationships. However, unlike Abdi et al. (2022), who focused on firm-level moderators, this study emphasizes external macroeconomic conditions as critical interaction drivers.

Similarly, Akben-Selcuk (2019) established that governance-related factors moderated the CSR–performance relationship, finding that ownership concentration weakened CSR benefits. This reinforces the broader argument that interaction effects significantly shape firm outcomes. While their study focused on governance moderators, the present research extends this logic by demonstrating that economic stability itself acts as a contextual enhancer of governance effectiveness.

Further conceptual parallels emerge from Nirino, Santoro, Miglietta, and Quaglia (2021), who emphasized the role of contextual influences in performance dynamics, even though ESG practices did not emerge as significant moderators. Their conclusions underscore the complexity of interaction effects, supporting the current observation that not all moderating relationships produce statistically significant outcomes.

Importantly, the interaction between firm-specific characteristics and macroeconomic factors was found to be statistically insignificant. This suggests that internal attributes such as firm size, leverage, and liquidity may exert relatively stable effects that are less sensitive to short-term macroeconomic fluctuations. Firm performance therefore remains primarily driven by internal managerial efficiency and structural decisions, with macroeconomic stability functioning as an enabling rather than determining force.

In conclusion, the study demonstrates that macroeconomic conditions play a supportive and amplifying role in firm performance. A stable economic environment magnifies the benefits of sound ownership structures and effective governance systems by reducing uncertainty and enhancing strategic flexibility. Policymakers should therefore prioritize macroeconomic stability through prudent fiscal and monetary policies. Firms, in turn, should adopt adaptive strategies that account for macroeconomic dynamics to sustain profitability across varying economic cycles.

5.3 Recommendations of the Study

Based on the empirical findings of the study, the following recommendations are proposed to enhance the financial performance of firms listed on the Nairobi Securities Exchange (NSE).

First, firms should prioritize strengthening corporate governance structures, particularly by increasing board independence and audit committee independence, as these variables were found to have a statistically significant positive effect on financial performance. Companies should ensure that boards are composed of a substantial proportion of independent directors who can provide objective oversight and reduce agency conflicts. Similarly, audit committees should remain autonomous and staffed with competent members to enhance transparency, accountability, and the quality of financial reporting.

Second, firms should enhance internal financial management practices, focusing on key firm-specific characteristics that significantly influence performance. Management should maintain optimal liquidity levels to ensure operational stability and resilience against short-term financial shocks. Additionally, firms should carefully manage leverage levels, as excessive debt was found to negatively affect profitability. Emphasis should also be placed on efficient resource utilization and investment decisions, as firm size and investment intensity were positively associated with financial performance.

Third, policymakers should promote a stable macroeconomic environment, given that macroeconomic factors such as inflation, interest rates, and exchange rate volatility were found to have a significant negative effect on financial performance. The government, in collaboration with institutions such as the Central Bank of Kenya and the National Treasury, should implement policies aimed at controlling inflation, stabilizing interest rates, and minimizing exchange rate fluctuations to create a conducive business environment.

Fourth, both firms and policymakers should recognize the moderating effect of macroeconomic conditions on firm performance. Since adverse macroeconomic conditions

weaken the positive effects of firm-level factors, firms should adopt risk management strategies such as hedging against foreign exchange risk and diversifying revenue streams. Policymakers should also ensure macroeconomic predictability to support firm-level performance drivers.

Fifth, given that ownership structure variables were found to be statistically insignificant, firms and regulators should not overly rely on ownership configuration as a primary mechanism for improving performance. Instead, greater emphasis should be placed on strengthening governance practices and operational efficiency, which demonstrated more consistent and significant effects.

Finally, future research should focus on sector-specific and longitudinal analyses to better understand how firm-level and macroeconomic factors interact over time and across industries. Further studies may also explore indirect or interaction effects of ownership structure within broader governance and institutional frameworks.

5.4 Areas for Further Research

Despite achieving its objectives, this study identifies several specific areas that warrant further investigation. First, future studies should disaggregate the moderating effect of macroeconomic variables by examining each component—such as inflation, interest rates, and exchange rate volatility individually rather than as a combined index. This would help determine which specific macroeconomic factor exerts the strongest moderating influence on the relationship between firm-level characteristics and financial performance among NSE-listed firms.

Second, given that ownership structure variables were found to be statistically insignificant, future research should explore indirect and interaction effects of ownership structure, particularly its interaction with corporate governance variables such as board independence and audit committee effectiveness. This would help determine whether ownership influences performance through governance channels rather than directly.

Third, future studies should conduct sector-specific analyses within the NSE, such as banking, manufacturing, agriculture, and telecommunications sectors. This is important because the current study used a pooled cross-sector approach, which may mask industry-specific dynamics that influence how governance, firm characteristics, and macroeconomic factors affect financial performance.

Fourth, there is a need for research employing dynamic panel models (such as GMM estimators) to address potential issues of endogeneity and reverse causality between firm performance and its determinants. This would provide more robust causal inference compared to the fixed-effects model used in this study.

Fifth, future research should extend the dataset to include more recent post-2024 data and longer time horizons to capture the effects of evolving macroeconomic conditions, including inflation shocks, monetary policy changes, and exchange rate volatility in Kenya. This would enhance understanding of the stability and persistence of the observed relationships over time.

Sixth, further studies should incorporate firm-level risk and market-based performance measures, such as Tobin's Q and stock returns, in addition to accounting-based

measures like ROA and ROE. This would provide a more comprehensive assessment of financial performance from both internal efficiency and investor perspectives.

Seventh, future research could apply mixed-method approaches, including structured interviews with board members, regulators, and institutional investors, to better understand why governance variables are significant while ownership structure is not. This would provide deeper insight into the practical mechanisms driving firm performance beyond quantitative results.

Finally, there is scope for integrating Environmental, Social, and Governance (ESG) variables into the analytical framework to assess how sustainability practices interact with governance and macroeconomic conditions to influence long-term firm performance in emerging markets such as Kenya.

5.5 Limitations of the Study

The study was limited to firms listed on the Nairobi Securities Exchange, which may not fully represent the broader corporate sector in Kenya. Data availability constraints restricted the inclusion of other macroeconomic variables beyond inflation. The study also relied on secondary data, limiting the ability to capture qualitative aspects of governance practices and strategic decision-making. Furthermore, the analysis covered a specific time period, and the findings may vary under different economic conditions. Despite these limitations, the study provides valuable empirical evidence on the interplay between ownership, governance, firm characteristics, and macroeconomic factors in determining financial performance.

REFERENCES

Abang'a, A. O. G., Tauringana, V., Wang'ombe, D., & Achiro, L. O. (2022). Corporate governance and financial performance of state-owned enterprises in Kenya. *Corporate Governance: The International Journal of Business in Society, 22*(4), 798–820. https://doi.org/10.1108/CG-05-2021-0215

Abdi, Y., Li, X., & Càmara-Turull, X. (2022). Exploring the impact of sustainability (ESG) disclosure on firm value and financial performance in the airline industry: The moderating role of size and age. *Environment, Development and Sustainability, 24*(4), 5052–5079. https://doi.org/10.1007/s10668-021-01665-6

Affes, W., & Jarboui, A. (2023). The impact of corporate governance on financial performance: A cross-sector study. *International Journal of Disclosure and Governance*. Advance online publication. https://doi.org/10.1057/s41310-023-00192-y

Agyei-Boapeah, H., Machokoto, M., Amankwah-Amoah, J., Tunyi, A., & Fosu, S. (2020, July). IFRS adoption and firm value: African evidence. In Accounting Forum (Vol. 44, No. 3, pp. 238-261). Routledge.

Ahmed, S. K. (2024). How to choose a sampling technique and determine sample size for research: A simplified guide for researchers. *Oral Oncology Reports, 12*, 100662.

Akben-Selcuk, E. (2019). Corporate social responsibility and financial performance: The moderating role of ownership concentration in Turkey. *Sustainability, 11*(13), 3643. https://doi.org/10.3390/su11133643

Al-Ahdal, W. M., Alsamhi, M. H., Tabash, M. I., & Farhan, N. H. (2020). The impact of corporate governance on financial performance of Indian and GCC listed firms: An empirical investigation. *Research in International Business and Finance, 51*, 101083. https://doi.org/10.1016/j.ribaf.2019.101083

Al-Hashimy, H. N. H. (2025). The relationship between financial management strategies and firm financial performance: The moderating role of firm size. *Journal of Financial Management of Property and Construction*. https://doi.org/10.1108/JFMPC-05-2024-0059

Aluoch, M. O., Mwangi, C. I., Kaijage, E. S., & Ogutu, M. (2020). The relationship between board structure and performance of firms listed at the Nairobi Securities Exchange. *European Scientific Journal*, *16*(19), 337-364.

Ayako, A., Kungu, G., & Githui, T. (2015). Determinants of the performance of firms listed at the Nairobi Securities Exchange. *Research Journal of Finance and Accounting*, *6*(12), 157-164. https://www.researchgate.net/publication/307778033_Determinants_of_the_financial_performance_of_firms_listed_at_the_Nairobi_Securities_Exchange

Batten, J., & Vo, X. V. (2019). Liquidity and firm value in an emerging market. *The Singapore Economic Review*, *64*(02), 365-376.

Berman, P. S., Jones, J., Udry, J. R., & National Longitudinal Study of Adolescent Health. (2020). Research design. *The SAGE Handbook of Political Science*, 437.

Bobenič-Hintošová, A., Bobenič, T., Hajduová, Z., & Szajt, M. (2020). The influence of firm-specific factors on firms' performance. *Polish Journal of Management Studies, 21*(1), 93–106. https://doi.org/10.17512/pjms.2020.21.1.07

CDSC (2025). Listed Companies. *Central Depository & Settlement Corporation.* https://www.cdsckenya.com/investor-education/listed-companies

Cheong, H. I., Lyons, A., Houghton, R., & Majumdar, A. (2023). Secondary qualitative research methodology using online data within the context of social sciences. International Journal of Qualitative Methods, 22, 16094069231180160.

Cheruiyot, S. K., Aluoch, M. O., & Ndungu, P. (2024). Portfolio composition and financial performance of investment companies listed at the Nairobi Securities Exchange, Kenya. *International Academic Journal of Economics and Finance*, *4*(1), 321-344.

Dzwigol, H. (2022). Research methodology in management science: Triangulation. Virtual Economics, 5(1), 78-93.

Ganesha, H. R., & Aithal, P. S. (2022). Choosing an appropriate data collection instrument and checking for the calibration, validity, and reliability of data collection instrument before collecting the data during Ph. D. program in India. *International Journal of Management Technology and Social Sciences, 7*(2), 497-513.

Githiomi, P., & Koori, J. (2024). Board structure and profitability of manufacturing and allied firms listed at the Nairobi Securities Exchange, Kenya. *The Strategic Journal of Business & Change Management, 11*(1), 744-765. https://www.academia.edu/download/120792930/2729.pdf

Guedhami, O., Johan, S., Lopez-de-Silanes, F., & Terjesen, S. (2022). Challenges for corporate governance at the national and firm levels. Corporate Governance: An International Review.

Gupta, A., & Gupta, N. (2022). Research methodology. SBPD publications.

Hasnan, S., Mohd Razali, M. H., & Mohamed Hussain, A. R. (2021). The effect of corporate governance and firm-specific characteristics on the incidence of financial restatement. *Journal of Financial Crime, 28*(1), 244–267. https://doi.org/10.1108/JFC-03-2020-0044

Huyler, D., & McGill, C. M. (2019). Book Review: Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.

Jaishi, B., & Poudel, R. L. (2021). Impact of firm-specific factors on financial performance: A comparative study of life and non-life insurance companies in Nepal. *Prithvi Academic Journal, 4*(1), 39–55. https://doi.org/10.3126/paj.v4i1.37426

Kanda, B. Y. (2024). *Capital Structure, Capital Intensity and Profitability of Insurance Firms Quoted at Nairobi Securities Exchange, Kenya* (Doctoral dissertation, Kenyatta University).

Kaur, J., & Kaur, K. (2025). Board composition, ownership structure and dividend policy: Evidence from NSE listed companies in India. *International Journal of Law and Management, 67*(3), 392–408. https://doi.org/10.1108/IJLMA-03-2024-0078

Kenyan Wall Street (2023). Evolution of the Nairobi Securities Exchange: A Journey of Growth and Innovation. The Kenyan Wall Street. https://kenyanwallstreet.com/evolution-of-the-nairobi-securities-exchange-a-journey-of-growth-and-innovation/

Kirimi, P. N., Kariuki, S. N., & Ocharo, K. N. (2022). Ownership structure and financial performance: Evidence from Kenyan commercial banks. *PloS ONE, 17*(5), e0268301. https://doi.org/10.1371/journal.pone.0268301

Kirkpatrick, G. (2004). Corporate Governance: A Survey of OECD Countries. Organisation for Economic Co-operation and Development.

Kutto, C. (2020). *Effects of financial structure on financial performance of listed non-financial firms in Kenya* (Doctoral dissertation, University of Nairobi).

Mabeya, K., & Kariuki, J. (2019). The Impact of Financial Structure on Firm Value: Evidence from the Kenyan Stock Market. *Strategic Journals.* https://strategicjournals.com/index.php/journal/article/download/1233/1206

Mane, P. B., & Nikam, S. S. (2019). Basic instrumentation. In *Research Methodology* (pp. 99-160). Chapman and Hall/CRC.

Marra, M., & Nielsen, B. B. (2025). Research methodology: Best practices for rigorous, credible, and impactful research. Journal of International Business Studies, 1-3.

Msomi, T. S., & Nzama, S. (2023). Analyzing firm-specific factors affecting the financial performance of insurance companies in South Africa. *Insurance Markets and Companies, 14*(1), 8–18. https://doi.org/10.21511/ins.14(1).2023.01

Mukyala, V., Rono, L., & Lagat, C. (2020). Corporate governance and firm value: a comparative study of companies listed on the Nairobi and Uganda securities exchange. Journal of Finance and Accounting, 4(6), 1-17.

Mutuku, J. K. (2021). Effect of Leverage on Financial Performance of Investment Firms Listed at the Nairobi Securities Exchange (Doctoral dissertation, University of Nairobi).

Nairobi Securities Exchange (n.d.). Our Story: History of NSE. Nairobi Securities Exchange. https://www.nse.co.ke/our-story/

Nairobi Securities Exchange Limited. (2017). *Annual report & financial statements 2017* [PDF]. https://www.nse.co.ke/wp-content/uploads/nse-2017-annual-report_v9-1.pdf

Nairobi Securities Exchange Ltd. (2015). *Annual report & financial statements 2015* [PDF]. https://www.nse.co.ke/wp-content/uploads/nse-2015-annual-report-for-web-1.pdf

Nairobi Securities Exchange Plc. (2019). *Integrated report & financial statements 2019* [PDF]. https://www.nse.co.ke/wp-content/uploads/2019-Integrated-report-and-financial-statements-1.pdf

Nairobi Securities Exchange Plc. (2020). *Annual report & financial statements 2020* [PDF]. https://www.nse.co.ke/wp-content/uploads/NSE-2021-ANNUAL-REPORT-AND-FINANCIAL-STATEMENTS-1.pdf

Nairobi Securities Exchange Plc. (2021). *Annual report & financial statements 2021* [PDF]. https://www.nse.co.ke/wp-content/uploads/NSE-2021-ANNUAL-REPORT-AND-FINANCIAL-STATEMENTS-1.pdf

Nairobi Securities Exchange Plc. (2022). *Integrated report & financial statements 2022* [PDF]. https://www.nse.co.ke/wp-content/uploads/NSE-Annual-Report-2022-Integrated-Report.pdf

Nairobi Securities Exchange Plc. (2023). *Integrated annual report & financial statements 2023* [PDF]. https://www.nse.co.ke/wp-content/uploads/NSE-Annual-Report-2023Interactive.pdf

Nairobi Securities Exchange. (2025). *Market Statistics*. Retrieved October 14, 2025, from https://www.nse.co.ke/market-statistics

Ngei, S. (2022). *The impact of capital structure on firm performance: An empirical study of non-financial firms listed in the Nairobi Securities Exchange* (Doctoral dissertation, University of Nairobi).

Nirino, N., Santoro, G., Miglietta, N., & Quaglia, R. (2021). Corporate controversies and company's financial performance: Exploring the moderating role of ESG practices. *Technological Forecasting and Social Change, 162*, 120341. https://doi.org/10.1016/j.techfore.2020.120341

Odhiambo, J. D., Murori, C. K., & Aringo, C. E. (2025). Financial Leverage and Firm Performance: An Empirical Review and Analysis. *East African Finance Journal*, *4*(1), 25-35.

Owido, P. K., Onyuma, S. O., & Owuor, G. (2013). A GARCH approach to measuring efficiency: a case study of Nairobi securities exchange. Research Journal of Finance and Accounting, 4(4), 1-16.

Panda, B., & Bag, D. (2019). Does ownership structure affect firm performance in an emerging market? The Case of India. *B Panda, D Bag*.

Pucheta-Martínez, M. C., & Gallego-Álvarez, I. (2020). Do board characteristics drive firm performance? An international perspective. *Review of Managerial Science*, *14*(6), 1251-1297.

Saidat, Z., Silva, M., & Seaman, C. (2019). The relationship between corporate governance and financial performance: Evidence from Jordanian family and non-family firms. *Journal of Family Business Management, 9*(1), 54–78. https://doi.org/10.1108/JFBM-11-2017-0036

Singhania, A. K., & Panda, N. M. (2025). Does audit committee composition influence firm performance? Evidence from the top NSE-listed non-financial companies of India. *Asian Journal of Accounting Research, 10*(1), 2–18. https://doi.org/10.1108/AJAR-05-2023-0064

Sisay, T., Mukami, G. & Kimotho, K. (2023). East Africa Macroeconomic Outlook. Volume IV. Deloitte. https://www.deloitte.com/ke/en/services/consulting-financial/analysis/east-africa-macroeconomic-outlook-volume-iv.html

Soda, M. Z., & Al-Shyyab, M. A. S. (2024). Does Solvency Management Affect Firm Value? Evidence from Emerging Countries. In Artificial Intelligence and Economic Sustainability in the Era of Industrial Revolution 5.0 (pp. 633-645). Cham: Springer Nature Switzerland.

Sunday, A. A., & Kwenda, F. (2021). Corporate ownership structure and firm value: Empirical evidence of JSE-listed firms, South Africa. *Eurasian Journal of Economics and Finance*, *9*(2), 89-106.

Varpio, L., Paradis, E., Uijtdehaage, S., & Young, M. (2020). The distinctions between theory, theoretical framework, and conceptual framework. *Academic Medicine, 95*(7), 989–994. https://doi.org/10.1097/ACM.0000000000003075

Waweru, F. M. (2015). 60@ 60: Development of the Nairobi Securities Exchange.

Willie, M. M. (2022). Differentiating between population and target population in research studies. *International Journal of Medical Science and Clinical Research Studies, 2*(6), 521-523.

Yasser, Q. R., & Mamun, A. A. (2017). The impact of ownership concentration on firm performance: Evidence from an emerging market. *Emerging Economy Studies*, *3*(1), 34-53.

Yemi, A. E., Adelabu, A. Z., & Seriki, A. I. (2015). Corporate governance and market value of quoted companies in Nigeria (2003-2012). The Business & Management Review, 7(1), 486.

APPENDICES

Appendix I: Data Extraction Sheet

Introduction

This study relies on **secondary data** collected from audited financial statements, NSE handbooks, CMA reports, and Bloomberg databases. The research instrument is a **data extraction sheet** designed to capture firm-year observations for all NSE-listed companies under study. The extraction sheet ensures systematic, consistent, and reliable collection of financial and governance indicators for pooled regression analysis.

Section 1: General Instructions

1. **Unit of Observation:** Each row corresponds to a single firm-year.
2. **Sources:** Use official audited annual reports, CMA filings, and NSE handbooks. Record the exact source in the *Source* column (e.g., "KCB Annual Report 2018, p.78").
3. **Missing Values:** Use "NA" for genuinely missing data. Do not substitute zero unless it represents a true zero.
4. **Currency Consistency:** Convert all financial figures into the same currency (KES). Document exchange rates if conversion is applied.
5. **Computation:** Some variables will be computed from reported values (see definitions below). Computed variables must be noted in the *Extraction Notes*.
6. **Quality Control:** Each completed sheet must be reviewed by a second coder, with initials and dates recorded.

Section 2: Data Extraction Template

The table below provides the columns to be included in the extraction sheet. In practice, this will be prepared in **Excel or SPSS**, but the structure is documented here for transparency.

Variable	**Description**	**Measurement / Formula**	**Source**
Firm_ID	NSE ticker symbol	Text	
Firm_Name	Registered company name	Text	
Year	Financial year (YYYY)	Numeric	
Sector	NSE classification	Nominal	
Board_Size	Total number of directors	Count	
Gender_Diversity	% of female directors	(Female ÷ Total) ×100	
Total_Assets	Reported total assets	KES	
Shareholders_Equity	Equity attributable to shareholders	KES	
Net_Income	Net profit after tax	KES	
Market_Capitalization	Share price × No. of shares	KES	
No_Shares_Outstanding	Total number of ordinary shares	Numeric	

ROA	Net_Income ÷ Total_Assets	Ratio	
ROE	Net_Income ÷ Shareholders' Equity	Ratio	
EPS	Net_Income ÷ No_Shares_Outstanding	Ratio	
Liquidity	Current Assets ÷ Current Liabilities	Ratio	
Leverage	Total Debt ÷ Shareholders' Equity	Ratio	
Investment_Intensity	Capex ÷ Total Assets	Ratio	
Board_Independence	% independent non-executive directors	(Independent ÷ Total) ×100	
Audit_Committee_Independence	% independent members in audit committee	(Independent ÷ Total) ×100	
Ownership_Top5	% shares held by top 5 shareholders	Ratio	
Ownership_Institutional	% shares held by institutional investors	Ratio	
Ownership_Managerial	% equity held by executives/directors	Ratio	

Ownership_Foreign	% equity held by foreign investors	Ratio	
Extraction_Notes	Any clarifications on data source or computation	Text	
Entry_By	Initials of data collector	Text	
QC_By	Initials of quality checker	Text	

Appendix II: Firms Listed in NSE

Sector	Subsector	Listed Firms
Financial Sector	Banking	1. ABSA Bank Kenya Plc. 2. Stanbic Holdings Ltd. 3. I & M Holdings Plc. 4. Diamond Trust Bank Kenya Ltd. 5. HF Group Plc. 6. KCB Group Plc. 7. NCBA Group Plc. 8. Standard Chartered Bank Kenya Ltd. 9. Equity Group Holdings Plc. 10. The Co-operative Bank of Kenya Ltd.
	Insurance	11. Jubilee Holdings Ltd. 12. Sanlam Kenya Plc. 13. Kenya Re-Insurance Corporation Ltd. 14. Liberty Kenya Holdings Plc. 15. Britam Holdings Plc. 16. CIC Insurance Group Ltd.
	Investment Services	17. Nairobi Securities Exchange Plc.
	Exchange Traded Funds	18. ABSA New Gold ETF
Non-Financial Sector	Investment & Diversified Holdings	19. Centum Investment Plc. 20. Trans-Century Plc. 21. Home Afrika Ltd. 22. Kurwitu Ventures Ltd. 23. Olympia Capital Holdings Ltd.
	Manufacturing & Allied	24. B.O.C Kenya Plc. 25. British American Tobacco Kenya Plc. 26. Carbacid Investments Plc. 27. East African Breweries Ltd. 28. Unga Group Ltd. 29. Kenya Orchards Ltd. 30. Flame Tree Group Holdings Ltd. 31. Mumias Sugar Co. Ltd.
	Agricultural	32. Kapchorua Tea Kenya Plc. 33. Kakuzi Plc. 34. Limuru Tea Co. Ltd. 35. Sasini Plc. 36. Williamson Tea Kenya Plc. 37. Eaagads Ltd.
	Automobiles & Accessories	38. Car & General (K) Ltd.
	Commercial & Services	39. Express Kenya Plc. 40. Kenya Airways Ltd. 41. Nation Media Group Plc.

		42. Standard Group Plc. 43. TPS Eastern Africa (Serena) Ltd. 44. WPP Scangroup Plc. 45. Uchumi Supermarket Plc. 46. Eveready East Africa Ltd. 47. Longhorn Publishers Plc. 48. Deacons (East Africa) Plc. 49. Sameer Africa Plc. 50. Nairobi Business Ventures Ltd. 51. Homeboyz Entertainment Plc.
	Construction & Allied	52. ARM Cement Plc. 53. Bamburi Cement Ltd. 54. Crown Paints Kenya Plc. 55. E.A. Cables Ltd. 56. E.A. Portland Cement Ltd.
	Energy & Petroleum	57. Total Kenya Ltd. 58. KenGen Plc. 59. Kenya Power & Lighting Plc. 60. Umeme Ltd.
	Real Estate Investment Trust (REIT)	61. ILAM Fahari I-REIT
	Telecommunication	62. Safaricom Plc.

Source: (Nairobi Securities Exchange, 2024)

Appendix III: To Whom It May Concern Letter

Thika Road, Ruaraka
P.O. Box 56808-00200 Nairobi Kenya
Pilot Line: +254 20 8070408/9

Tel: +254 20 3537842
Fax: +254 20 8561077
Mobile: +254 734 888022, 710 888022
Email: kca@kca.ac.ke
Website: www.kca.ac.ke

BOARD OF POSTGRADUATE STUDIES

KCAU/BPS/2025 *Date: Monday, October 13, 2025*

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: LILIAN ADHIAMBO RACHUONYO- REG NO. 13/03031

It is my distinct pleasure to introduce Lilian Adhiambo Rachuonyo, a student at our institution pursuing a Master of Science in Commerce- Finance and Investments degree in the School of Business.

Lilian is conducting research on the topic: ***"Firm-specific institutional factors and financial performance of firms listed at the Nairobi securities exchange (NSE)"*** which is part of the requirements of the program she is pursuing. The research as well as the data procured thereof shall be used for academic purposes only. Any assistance accorded to her is highly appreciated.

In case of further inquiry, do not hesitate to contact the undersigned.

Yours faithfully,

DR. JACKSON NDOLO
DIRECTOR, BOARD OF POST GRADUATE STUDIES

Appendix IV: NACOSTI Letter

Thika Road, Ruaraka
P.O. Box 56808-00200 Nairobi Kenya
Pilot Line: +254 20 8070408/9

Tel: +254 20 3537842
Fax: +254 20 8561077
Mobile: +254 734 888022, 710 888022
Email: kca@kca.ac.ke
Website: www.kca.ac.ke

BOARD OF POSTGRADUATE STUDIES

KCAU/BPS/2025 *Date: Monday, October 13, 2025*

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION (NACOSTI)
P.O BOX 30623-00100
NAIROBI

Dear Sir/Madam,

RE: LILIAN ADHIAMBO RACHUONYO- REG NO. 13/03031

It is my distinct pleasure to introduce Lilian Adhiambo Rachuonyo, a student at our institution pursuing a Master of Science in Commerce- Finance and Investments degree in the School of Business.

Lilian is conducting research on the topic: ***"Firm-specific institutional factors and financial performance of firms listed at the Nairobi securities exchange (NSE)".*** Her study has been reviewed and approved by the University's Ethics Review Committee Approval No. KCAUSERC/SOB0376. The approval period is from 2nd October 2025 to 2nd October 2026.

Any assistance accorded to her is highly appreciated.

Yours faithfully,

DR. JACKSON NDOLO
DIRECTOR, BOARD OF POST GRADUATE STUDIES

Appendix V: KCA University Scientific & Ethics Review Committee Letter

KCA UNIVERSITY
-1989-

Thika Road, Ruaraka
P.O. Box 56808-00200 Nairobi Kenya
Pilot Line: +254 20 8070408/9

Tel: +254 20 3537842
Fax: +254 20 8561077
Mobile: +254 734 888022, 710 888022
Email: kca@kca.ac.ke
Website: www.kca.ac.ke

KCA UNIVERSITY SCIENTIFIC & ETHICS REVIEW COMMITTEE

REF: **KCAU/SERC/SOB0376** **Date: 2nd OCTOBER 2025**

TO: **LILIAN ADHIAMBO RACHUONYO (13/03031)**

Dear Sir/Madam,

RE: FIRM-SPECIFIC INSTITUTIONAL FACTORS AND FINANCIAL PERFORMANCE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE (NSE)

This is to inform you that the KCA University Scientific Ethics Review Committee (KCAUSERC) has reviewed and approved your research proposal. Your application approval number is ***KCAUSERC/SOB0376.*** The approval period is from **2nd October 2025 to 2nd October *2026.***
This approval is subject to compliance with the following requirements.

i. Only approved documents, including informed consents, study instruments, and MTAs, will be used.
ii. All changes, including (amendments, deviations, and violations), are submitted for review and approval by ***KCAUSERC.***
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events, whether related or unrelated to the study, must be reported to **KCAU*SERC*** within 72 hours of notification.
iv. Any changes, anticipated or otherwise, that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to ***KCAUSERC*** within 72 hours.
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days before expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to ***KCAUSERC.***

Before commencing your study, you will be expected to obtain a research license from the National Commission for Science, Technology and Innovation (NACOSTI) https://research-portal.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

Scientific and Ethics KCA UNIVERSITY Review Committee

Dr. Caroline Ntara,
Chairperson,
KCA University Scientific & Ethics Review Committee.

Advancing Knowledge, Driving Change

Appendix VI: NACOSTI License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **315011**

Date of Issue: **20/October/2025**

RESEARCH LICENSE



This is to Certify that Miss.. LILIAN ADHIAMBO RACHUONYO of KCA University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: Firm-Specific Institutional Factors and Financial Performance of Firms Listed at Nairobi Securities Exchange for the period ending : 20/October/2026.

License No: **NACOSTI/P/25/4181133**

315011

Applicant Identification Number

Ag. Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions