

**OWNERSHIP STRUCTURE, CASH HOLDING, RISK-TAKING AND THE
PERFORMANCE OF NON-FINANCIAL FIRMS LISTED IN SUB-SAHARAN
SECURITIES EXCHANGES**

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DECLARATION

This project is my original work and has not been presented elsewhere for a degree or any other award.

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DEDICATION

I dedicate this work to my family members. Their motivation and well wishes have been a propelling force that helped me stay on track to ensure the work was successfully completed.

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LIST OF ABBREVIATIONS/ACRONYMS

BI	Board Independence
CashTA	Cash to Total Assets
CashTE	Cash to Total Equity
FO	Foreign Ownership
GDP	Gross Domestic Product
GMM	Generalized Method of Moments
INDMY	Industry Dummy
IO	Institutional Ownership
MO	Managerial Ownership
NACOSTI	National Commission for Science, Technology and Innovation
ROA	Return on Assets
ROE	Return on Equity
RT	Risk Taking
SO	State Ownership
SSA	Sub-Saharan Africa

DEFINITION OF TERMS

Cash Holdings	This is the amount of cash a company has on hand for operational or investment purposes.
Financial Performance	This measures a company's efficiency in achieving its goals.
Foreign Ownership	This represents the ownership of an organization by entities outside the country in which the company is located.
Institutional Ownership	This represents the ownership of a corporation's equity by other organizations.
Managerial Ownership	This represents the amount of stock ownership by a firm's directors
Ownership Structure	This is the way in which a company is legally organized.
Risk Taking	This is the process where a company makes decisions that involve risk in order to potentially achieve a desired outcome.
State Ownership	This is when a government or state owns a firm or part of a firm.

ABSTRACT

Ownership structure of listed non-financial firms impacts a firm's incentive environment, which influences a firm's risk taking and cash holding decisions. Higher levels of cash holding by the managers is linked to lower levels of risk taking which is in turn linked to lower level of financial performance. However, the contribution of ownership structure, cash holding and risk taking towards financial performance has sparked discussions among scholars, because of the declining financial performance reported by listed non-financial firms. The study assessed the effect of ownership structure, cash holding and risk-taking on the financial performance of 83 listed non-financial corporations from the year 2016 through the year 2021 using the two-step system GMM method. GMM technique was used in the study because of its ability to solve problems with asymmetric panels and multiple endogenous variables. GMM's outcome was then compared across the agricultural, manufacturing and construction industries. The study was anchored on the free cashflow, modern portfolio, agency and trade-off theories. The study's outcome reveals a positive significant association between ownership structure and the performance of Sub-Saharan listed non-financial corporations, which was significant at 1%. Similarly, the outcome suggests a 1% significant positive association between cash holding and the performance of Sub-Saharan listed non-financial corporations. The outcomes, however demonstrated a 5% significant negative association between risk-taking and the performance of Sub-Saharan listed non-financial corporations. Moreover, a sub-sector comparison of the study's outcome implied that ownership structure, cash holding and risk-taking had a statistically significant positive association with ROA, ROE and Tobin's Q in agricultural and manufacturing listed firms. However, ownership structure, cash holding and risk-taking had a statistically significant negative association with ROA, ROE and Tobin's Q in construction-listed corporations. To the authors' knowledge, this is among the first studies to investigate the linkage between ownership structure, cash holding, risk-taking and performance of listed non-financial corporations across different industries in Sub-Saharan Africa. This study contributes to and extends the literature with current empirical evidence, with analysis based on the various sub-sectors of the listed non-financial corporations. The study is useful to policymakers when establishing guidelines that suggest optimal cash-holding and risk-taking levels for listed non-financial corporations. Additionally, the study is useful to corporate owners of listed non-financial corporations when making strategic decisions, helping them balance liquidity management and risk exposure.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Financial performance indicates the health of both financial and non-financial listed firms. Superior performance from financial and non-financial firms, has driven economic growth, employment and innovation in recent years (Servaes, 2020). However, non-financial listed firms reported a decline in their financial performance in the year 2017 through 2021 (Muturi, 2022). Morck (2018), noted that the performance of U.S listed shipping corporations declined between the year 2010 and 2017. This decline in the performance was attributed to managerial ownership where the control of the shipping firms was on few major shareholders whose interests did not align with that of the firm as a whole. This led to inefficient management, overinvestment and lack of accountability which reduced the operating profit margin of the U.S listed shipping firms from 15% in 2010 to 11% by the end of the year 2017.

Cash is a non-productive asset, holding too much of it could be detrimental to an organization's performance (Cid, 2021). A study by Bhatt (2022), noted that the gross profit margin of Chinese listed non-financial firms declined from 6% in 2017 to 3.5% by the end of 2021. The decline in gross profit margin was as a result of holding too much cash demonstrated by the non-financial listed firms. The tendency by Chinese listed non-financial corporations to keep increased levels of cash reserves led to missed investment opportunities which in turn reduced the gross profit margin ultimately leading to agency disputes and problems (Alnori, 2020). Consistently, Endri (2020), noted a decline in the net profit margin of Indian listed non-financial firms from 9.6% in the year 2011 to 7% by the end of the year 2019. This decline in net profit margin was attributed to the tendency of Indian listed non-financial firms to hold too much cash to attain managerial discretion instead of investing in value-creating opportunities which resulted in agency disputes and ultimately lower performance.

In Sub Sahara Africa (SSA), Tektas (2022), observed a decline in the return on equity (ROE) of Nigerian Securities Exchange's listed non-financial firms, from 5% in 2017 to 2% by the end of the year 2021. The ROE dropped because Nigerian Stock Exchange listed non-financial firms took too many uncalculated risks, resulting in huge losses. The Rwandan Securities Exchange also noted a decrease in return on assets (ROA) of non-financial listed corporations from 8% in 2012 to 5.5% by the end of the year 2018 (Senyo, 2019). The decline in ROA was attributed to the inability of the firms to take on risks. For

example, state owned firms favored the conservative approach of management hence took on little risk which in turn led to under-utilization of assets in generating profits hence a reduction in financial performance. In Kenya, Murugi (2021) observed that NSE listed non-financial organizations reported a reduction in their performance in the year 2014 through the year 2020. As suggested by Murugi (2021), the operating profit margin declined from 6% in the year 2014 to 4% by the end of the year 2020. The decline in operating profit margin of listed non-financial organizations was attributed to ownership concentration. For instance, Kenya power and lighting company as well as Bamburi Cement limited implemented an ownership concentration strategy whereby strategic decisions were on the hands of corporate managers who worked towards their own financial gain as opposed to investor's wealth multiplication. This in turn led to poor choices with regards to cash holding and risk-taking decisions which in turn led to decreasing performance.

1.1.1 Financial Performance

Financial performance measures how well corporations are performing in terms of their health (Mutero, 2021). In the case of listed non-financial firms, financial performance can be assessed by looking at the share price and market capitalization (Kibe, 2021). However, the most important aspect of a listed non-financial firm's financial performance is its profitability (Zuraida, 2022). Profitability is measured using metrics such as ROA and ROE (Kwi, et al., 2018). ROA indicates a corporation's efficiency in utilizing assets to generate profit, while ROE indicates the corporation's efficiency in using the equity generated by the shareholders to generate income (Fama, 2017). Financial performance indicates how a corporation utilizes its assets to generate sales (Durant, 2020).

1.1.2 Ownership Structure

Equity distribution in a corporation is demonstrated by its ownership structure. It reveals the shareholders and their voting power in a firm (Gathuma, 2019). Differences in decision-making powers of the various shareholders influence a corporation's performance. The performance of a corporation is determined by its ownership concentration (Chowdhury, 2012). The ownership of a corporation affects the corporation's ability to access capital, which in turn impacts the corporation's performance (Tektas, 2022). The ownership of a corporation affects the corporation's performance by influencing the corporation's operating profits (Graham, 2016). The ownership of a corporation influences the corporation's operating performance through its effect on the corporation's incentives, information, and risk-bearing (Endri, 2020). Corporations with large shareholding are likely to experience increased levels of volatility in their financial performance, since there may be a greater diversity of views on how to manage the firm, whereas firms with a smaller number of

shareholders may experience more consistent financial performance since they may be less likely to experience disagreement on strategic decisions (Denis, 2019). Ownership structure was selected as a variable for this study because it reveals the shareholders and their voting power in a firm, hence the differences in decision-making powers of the various shareholders influence a corporation's performance

1.1.3 Cash Holding

Cash holdings influence a corporation's performance directly (Abdulahi, 2017). A firm with higher cash holdings can take advantage of more opportunities that present themselves, as well as being able to endure difficult economic times more easily (Berto, 2020). Additionally, firms with high cash levels are capable of investing in new projects or expanding existing ones, which leads to higher profits (Bhattacharjee, 2022). Conversely, firms with low cash holdings may have limited ability to take advantage of new opportunities, which restrains their financial performance. Additionally, low cash holdings limit a firm's ability to respond to unexpected events, which can lead to financial losses (Ferreira, 2015). Firms, therefore, need to maintain appropriate levels of cash holdings to ensure their financial performance remains steady (Gopikumar, 2020). Cash holding was chosen for this study because over the past few decades, average corporate cash holding has risen significantly, sparking discussions among scholars with regard to cash holding's effect on corporate performance (Ullah, 2016).

1.1.4 Risk Taking

Risk taking is a vital factor in determining financial performance (Byungmo, 2016). Risk taking can lead to greater rewards, but also greater losses. When companies take on more risks, they are more likely to experience higher returns, as well as higher losses (Dat, 2020). When managed effectively, risk taking helps a company increase its profits and overall financial performance (Kitutsi, 2017). For example, a company may take on the risk of investing in new technologies that could potentially yield greater returns, or the risk of expanding into a new market (Kibe, 2021). While these risks can be costly, if managed correctly, they lead to greater rewards. Conversely, when a company takes on too much risk or fails to manage it properly, it results in losses and a decrease in financial performance (Doidge, 2021). Risk taking was selected for this study because while being a contemporary topic, risk taking can lead to greater rewards, but also greater losses for corporations.

1.1.5 Sub-Saharan Securities Exchanges

Sub-Saharan Africa (SSA) hosts a diverse range of securities exchanges that play a vital role in regional economic growth and capital market development (Kungu, 2015). Key exchanges include the Johannesburg Stock Exchange (JSE) in South Africa, the largest and

most sophisticated on the continent, offering equities, bonds and derivatives (Kiptoo, 2019). Nigeria's NGX (Nigerian Exchange Group) is another major player, supporting a dynamic financial sector. Other notable exchanges are the Nairobi Securities Exchange (Kenya), the Botswana Stock Exchange and the Ghana Stock Exchange, each facilitating capital raising and investment opportunities. As suggested by Murugi (2021) several regional exchanges have emerged, like the Bourse Régionale des Valeurs Mobilières (BRVM) which serves eight West African countries enhancing cross-border investments. Despite progress, Sub-Saharan exchanges face challenges (Wamalwa, 2020) such as low liquidity, limited product offerings and regulatory hurdles. However, technological advancements and regulatory reforms are promoting greater participation and transparency (Kibe, 2021). Appendix III lists the Sub-Saharan countries represented in the study.

1.2 Problem Statement

The performance of publicly traded corporations is significant globally and in specific regions like SSA (Ray, 2019). Globally, when listed firms perform well, they generate revenues, contributing to increased economic growth for nations worldwide (Saddour, 2016). In regions like SSA, good performance by listed firms drives innovation and creation of jobs, all of which are reflected in stronger economies for individual SSA countries (Muturi, 2022). However, between 2016 and 2021, non-financial firms listed in the SSA Securities Exchanges reported a decrease in financial performance (JSE, 2022). Javed (2021) has associated this decline in performance by listed non-financial firms to ownership structure and inefficient management of cash and risk-taking activities. According to Adodor (2020) differences in ownership concentration leads to differences in cash holding and risk taking decisions of listed non-financial corporations. Khan et al. (2021) proposes that ineffective cash management by listed non-financial corporations leads to a lack of financial flexibility, which is crucial for navigating uncertainties. Moreover, inefficient deployment of cash makes listed non-financial corporations unable to invest in technological advancements that ensure competitiveness in the market (Lee, 2023). Furthermore, as Mohamad et al. (2023) proposed, inadequate management of risks contributes to operational inefficiencies making listed non-financial corporations unable to weather disruptions effectively, leading to decreased performance.

Statistically, non-financial firms' equity turnover ratio declined from 19.5% in 2017 to 11.0% in the year 2021. Additionally, the market capitalization declined from 16% in 2017 to 13.3% by the end of the year 2021 (BRVM, 2022). The decline in both the equity turnover ratio and the market capitalization of non-financial firms decreased the financial performance of SSA-listed firms. Additionally, the decline in performance of SSA-listed

firms were linked to differences in ownership concentration, leading to a difference in the cash holding and risk-taking decisions of listed firms (Liang, 2022). Nonetheless, the relation between ownership structure, cash holding, risk-taking and performance of non-financial listed corporations, is not well understood in the SSA context due to conflicting results posited by previous studies. For example, Abdulahi (2017) and Kwi et al., (2018) noted a positive linkage between corporate ownership and performance while Bhatt (2022) noted a negative association between corporate ownership and performance of SSA-listed non-financial corporations. Concerning cash holding, Fama (2017) noted a positive association between cash holding and organizational performance while Senyo (2019) and Seth (2022) noted a negative association between cash holding and organizational performance of SSA-listed non-financial corporations. Regarding risk taking, Gathuma (2019) and Kibe (2021) noted a positive linkage between risk taking and corporate performance while Dat (2022) established a negative linkage between risk taking and performance of non-financial listed organizations. The existence of conflicting outcomes provide room for further research on the area to enhance the understanding of the influence that corporate ownership, cash holding and risk taking have on corporate performance.

1.3 Objectives

The study had both general and specific objectives as follows;

1.3.1 General Objective

The study sought to explore the linkage between ownership structure, cash holding, risk taking and the financial performance of non-financial firms listed in SSA Securities Exchanges.

1.3.2 Specific Objectives

Three specific objectives were developed as follows;

1. To determine the effect of ownership structure on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchanges.
2. To analyze the effect of cash holding on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchanges.
3. To evaluate the effect of risk taking on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchange.

1.4 Study Hypotheses

Three hypotheses guided this study as follows;

H₀₁: Ownership structure does not have a significant effect on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchanges.

H₀₂: Cash holding does not have a significant effect on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchanges.

H₀₃: Risk taking does not have a significant effect on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchanges.

1.5 Study Justification

This study sought to contribute to and extend the literature with current empirical evidence with analysis based on the various sub-sectors of the listed non-financial firms. This provides an avenue for policy formulation for each specific sub-sector and industry players and to do comparative analysis which was not provided in the previous empirical literature. In addition, the study's findings are useful to managers of various non-financial organizations while making decisions about taking on risky investments and the amount of cash levels to be held by the firm. Additionally, the study findings provide verifiable evidence on the relation between ownership structure, cash holding, risk taking and performance of non-financial listed corporations creating an enabling environment for further research on financial performance.

1.6 Study's Scope

The study investigated the effect of ownership structure, cash holding and risk taking on corporate performance of SSA-listed non-financial firms. All the 334 SSA-listed non-financial firms as of 2021 were targeted. Data was assembled from the audited financial statements of all the SSA non-financial listed corporations for 6 years starting from 2016 to 2021. During this period, SSA witnessed severe decrease in performance of non-financial listed organizations (Seth, 2022).

1.7 Study Limitations

The major limitation of this study is that it did not include all listed non-financial corporations due to incomplete data from some of them. In addition, this study failed to incorporate other factors such as exchange rates, inflation and behavioral finance, which also influence the association between ownership structure, cash holding and risk taking of SSA-listed non-financial corporations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two sets forth the literature reviewed while conducting the study. Specifically, chapter two sets forth the theories that underpinned the study, empirical literature, conceptual framework, summary of literature review and the research gaps noted in the reviewed literature.

2.2 Theoretical Review

The free cash flow, modern portfolio, agency and trade-off theories underpinned this study. Each theory's relevance to the study is as discussed herein.

2.2.1 Free Cash Flow Theory

The theory of free cash flow (FCF) theory, developed by Michael Jensen in 1986, has become one of the most foundational and leading frameworks towards understanding how financial policy is interwoven with managerial discretion over excess cash retained within a corporation (Almustafa et al., 2023). The theory holds that when corporations generate more cash than necessary for their required operational and investment needs, there exists surplus money "free money" which causes conflicting interests between shareholders and managers. Chin et al. (2022), Jalali et al. (2020) and Xu (2022) find that such excess cash, under managers' discretionary control, induces them to pursue acquisitions or projects that maximize personal benefits at the cost of shareholder benefits, diminishing overall corporate performance. However, critics have contended that the theory oversimplifies the motives of managers and ignores the strategic rationale for maintaining excess cash to take advantage of future opportunities brought about by uncertainty in business environments (Khan et al., 2021). Notwithstanding, the theory remains relevant and serves as a guiding framework for understanding the implications of excess cash on shareholders' value and managerial decisions (Javed, 2021). The theory also offers a theoretical basis for understanding how discretionary usage of excess cash affects risk-taking behaviours and general financial performance within listed non-financial corporations in SSA.

2.2.2 Modern Portfolio Theory

This theory was proposed by Harry Markowitz in 1952. According to Vengesai (2023) and Zhou et al. (2023), the theory is one of the cornerstones in investment since it could change the core approach of managers towards risk and return while making investment decisions. Zaiane et al. (2022) suggest that modern portfolio theory revolves around diversification

strategies. It is postulated that managers stand a better chance in constructing portfolios with different risk and return profiles and therefore stand in a better position to command an optimal risk-return trade-off, leading to upsurged corporate performance (Yun et al., 2020). The theory illustrates that with higher risk, a higher return should be expected in an efficient frontier. According to Vo et al. (2023) and Soobaroyen et al (2019), every manager is in pursuit of that ideal combination of risk on the frontier that would help achieve suitability with their return expectations and risk tolerance. However, the critics of the theory say that assumptions like the stability of risk and returns may not always hold in reality (Tukamuhabwa et al., 2023).

Additionally, the single-period focus of the theory based on historical data, is bound to fail in extreme events and dynamic market conditions (Dalwai, 2021). In any case, the theory is of immense benefit to the study in that the principles of the theory are useful and helpful in guiding the exploration of optimizing risk-return profiles using diversification strategies (Tsai, 2023). Additionally, the theory's principles are valuable to managers who aim to quantify the exact amount of cash holding that reduces the overall portfolio risk within the peculiar setting of Sub-Saharan listed non-financial corporations (Cid et al., 2021).

2.2.3 The Agency Theory

Proposed by Michael Jensen and William Meckling in 1976, shareholders and managers' relationship is described in this theory (Berle, 1932). It is based on the fact that shareholders own the company and the managers are employed to maximize shareholders' wealth. Agency problem occurs when the shareholders and the managers interests are not aligned (Jensen, 1976). Critics of the agency theory contend that it does not fully capture the complexity of the real world as it does not take into consideration the managers' incentives to maintain and increase their wealth and power (Smith, 1776). Furthermore, the owners and managers are not always in conflict and therefore the agency theory fails to account for the positive relationships between them (Bhatt, 2022). The theory is vital in explaining the relation between the shareholders and managers and their role in influencing corporate decisions (Naibei, 2012). Ownership concentration dictates the control rights of shareholders and managers and how these rights are balanced to create an optimal corporate governance structure (Sudiyanto, 2021). Corporate cash holdings and corporate risk-taking decisions are taken by the managers and their incentives to maximize their own wealth can influence these decisions. The agency theory is a useful tool in explaining the relationship between shareholders and managers and how their decisions on corporate cash levels and risk-taking behavior can influence the performance of SSA non-financial listed firms.

2.2.4 Trade-Off Theory

The theory was proposed by Franco Modigliani and Merton Miller in 1963 and explains that corporations set optimum cash amounts by comparing the costs and rewards of holding cash (Olper et al., 1999; Ferreira, 2004; Ullah, 2016). Hence, cash holdings are closely controlled so as to derive maximum rewards. The major reward of holding cash is that, cash holdings constitute a buffer that enables a corporation to avoid the costs of using outside financing or liquidating available assets to fund its investments (Faulkender, 2006; Fresard, 2010). Ogundipe (2012) argues that holding inadequate cash causes corporations to forsake investments having positive NPV or to source for exorbitant sources of funds. Opportunity cost is the main cost experienced by firms when holding cash (Fereira, 2015). Furthermore, (Saddour, 2016) argues that, the costs associated with cash holdings depend on whether firm managers work towards maximizing financial performance or not. If the managers don't work towards financial performance maximization, they will end up stockpiling cash so as to increase assets and achieve managerial discretion (Han, 2007). This theory is however criticized for assuming that cash is the only available asset hence not taking into account other assets such as stocks and bonds. Trade-off theory is useful in explaining how corporate owners use cash holding to maximize financial performance for the organization by assessing the benefits against the costs of holding cash.

2.3 Empirical Literature Review

This section sets forth an overview of the various studies concerning ownership structure, cash holding, risk taking and the performance of listed non-financial corporations.

2.3.1 Ownership Structure and Performance

Government ownership provides firms with strategic resources thereby aligning managers and shareholders' interests (Lin, 2014). However, too much government control may reduce a corporation's performance (Shah, 2012). This is because governments tend to be conservative while investing so as to minimize losses. A study by Ping (2016), assessed the relation between government control and performance of Chinese listed non-financial organizations from 2010 through 2015. The results portrayed an inverse relation between government control and performance hinting that government control lowered the firms' performance because governments favor the conservative approach to investing which yields lower returns (Vijayakumaran, 2017).

In addition, politically connected firms enjoy relatively lower costs of operations that enhances their financial performance (Graham, 2016). A study conducted by Kitutsi (2017), applied panel data regression to 56 Ghana listed non-financial firms during 2011 to 2016 to assess the relation between government ownership, institutional ownership and the

performance of listed non-financial corporations. The outcome indicated that government ownership had a U-shaped relation with performance. This meant that higher level of government ownership was higher than institutional ownership due to the rewards of government support such as lower cost of operations (Lopez, 2018).

Managerial ownership may encourage the managers of a firm to work towards financial performance improvement (Murugi, 2021). Encouraging the managers to own equity shares will help align the manager's interests with shareholder's interest (Muhammad, 2020). Morck (2018), analyzed the relation between management ownership and the performance of NYSE listed non-financial firms measured using Tobin's Q, employing a sample of 78 firms listed from 2010 to the year 2017. The results suggested a direct relation between manager ownership and organizational performance. This insinuated that allowing managers to take up equity shares encouraged them to work towards financial performance improvement thereby aligning their interests with those of the shareholders. However, Durant (2020), investigated the relation between managerial ownership and the performance of non-financial firms listed in South African stock exchange as at 2021 and established an inverse relation between director ownership and performance indicating that the management of a firm had no direct link to its financial performance.

Institutional investors hold more equity shares when compared to individual investors (Bhattacharjee, 2022). Because of this they have a greater influence on the performance of a corporation (Fereira, 2015). Adeyemi (2017), analyzed the relation between institutional shareholding and the performance of listed non-financial organizations in the Nigerian securities exchange using a sample 38 firms over the period 2011 to 2016, controlling for organizational size, the outcome suggested that institutional ownership had a positive relation with performance. This was because institutional ownership provided effective monitoring roles which in turn made the firm to take calculative risks leading to superior financial performance and fewer losses (Mallin, 2018).

Firms that cross-list on foreign stock exchanges benefit from lower cost of capital which in turn leads to improvements in the financial performance (Mutero, 2021). Adunga (2021), investigated why foreign non-financial listed firms performed better than non-foreign owned listed non-financial firms as at 2020. The study found that foreign owned non-financial firms had a higher ROA compared to their counterparts by 16.5%. This was the case because, foreign companies were better positioned to take advantage of reduced cost of capital when compared to their domestic counterparts (Liang, 2022).

Empirical evidence suggests that the effect of ownership structure whether state, institutional, managerial or foreign ownership, on the performance of corporations vary

from one country to another, hence there was a need to assess the relation between ownership concentration and organizational performance of SSA listed non-financial organizations due to this contextual gap.

2.3.2 Cash Holding and Performance

The performance of a listed non-financial corporation is contingent to its cash holding practices. For instance, according to Atif et al. (2019) and Tran (2020), a non-financial listed corporation that holds cash increases its ability to navigate through financial uncertainties, meet short-term financial commitments and invest in lucrative opportunities. As suggested by Vo et al. (2023) an optimum level of cash is generally linked with superior performance for listed non-financial corporations. Listed non-financial corporations can therefore significantly enhance their likelihood of covering operational expenses (Yun et al., 2020), servicing debt obligations (Zhou et al. 2023) and exploiting strategic opportunities (Ahmad, 2021) if they maintain adequate cash balances. Moreover, Almustafa et al. (2023) and Dalwai (2021) propose that a non-financial corporation with high liquidity may face any uncertainty making it able to avoid the possibility of liquidity constraints and eventual insolvency.

Al-Shammari (2021) contends that the linkage between cash holding and corporate performance is not strictly linear. According to Al-Shammari (2021), excessive cash holding beyond what is required to meet operational demands and strategic investment results in diminishing returns. Cash hoarding leads to missed investment opportunities, reduced return on assets and simultaneously increases opportunity cost leading to decreased corporate performance (Bates et al., 2006). Another view of cash holding proposed by Boamah et al. (2021) and Bsoul et al. (2022) is that cash holding is irrelevant and less critical regarding performance. Boamah et al. (2021) and Bsoul et al. (2022) contend that holding cash is neutral regarding financial performance because it does not directly contribute to the core operations of listed non-financial corporations.

Many studies have tested the association between cash holding and listed non-financial corporations' performance. For instance, (Jalali et al. 2020; Dimitropoulos, 2021; Javed, 2021; Khan et al., 2021; Chin et al., 2022; Kogler, 2023) document a positive linkage between cash holding and organizational performance for listed non-financial organizations. Likewise, Lee (2023) and Habib et al (2022) posited that listed non-financial corporations holding more cash could finance investment projects and as such exhibited enhanced performances. On the other hand, some studies hypothesize a negative linkage between organizational cash holding and performance. For instance, Mohamad et al. (2023) contend that an increase in cash holding suggests that corporate assets are not effectively used to

improve corporate performance. Similarly, Suttipun (2023) contends that excessive holding of cash reduces the return on assets which affects the overall performance since the corporation is not appropriately using its capital structure. Other studies (Mahto 2015; Guizani, 2017; La Rocca, 2018; Yun et al., 2020; Gul et al., 2020; Mujiyanto, 2022) have postulated a non-linear linkage between cash holding and corporate performance of listed non-financial corporations. According to Yun et al (2020) and Mujiyanto (2022), optimal holding amounts of cash induce a mixed effect on performance hence the simple accumulation of cash is not guaranteed to ensure linearity of improvement. The existence of conflicting outcomes provide room for probing cash holding's influence on corporate performance for enhanced understanding of the interplay between cash holding and corporate performance.

2.3.3 Risk-Taking and Performance

Risk-taking is an essential process in listed non-financial corporations (Thi et al., 2022). According to Tran et al. (2022) and Elmagrhi (2022), non-financial corporations are engaged in competitive and dynamic settings where the risks they undertake and how they handle them significantly affect their overall performance. Risk-taking is therefore a significant driver of innovation, competitiveness and growth if it is well calculated and aligned with a corporation's objectives. Tsai (2023) and Escandon (2024) postulate that non-financial corporations that take calculated risks can offer their products into new markets leading to increased chances of long-term financial success.

Tukamuhabwa et al. (2023) explain that inadequately managing risks exposes listed non-financial corporations to increased volatility and poor performance. Poor execution of risk-taking strategies results in upsurged financial losses, damaged corporate reputation and decreases the performance of listed non-financial corporations, according to Vo et al (2023). Yun et al (2020) therefore recommends effective risk management to balance the pursuit of opportunity with safeguarding against possible downsides (Yun et al., 2020). Zaiane et al. (2022) take this point further and explain that corporate managers are hugely responsible for administrating risk management to ensure that risk-taking strategies align with corporate interests. Zhou et al. (2023) contend further that investors and analysts consider the risk profile of a corporation regarding how well it is positioned to manage changing market conditions, technological shifts and new impingements in the regulatory landscape. Hence, the strategic success of non-financial corporations in managing risk depends on the critical and intentional infusion of risk considerations into their general business strategies. A balance between innovation and financial stability through effective risk management is

therefore crucial for achieving sustainable and robust performance under competitive pressures in listed non-financial corporations (Ahmad, 2021).

Empirically, several studies have been conducted globally relating to risk-taking and the performance of listed non-financial corporations have been carried out. For instance, Alnori (2020), Alshamari (2021), Kogler (2023) and Lee (2023) suggest a positive liaison between risk-taking and the corporate performance of listed non-financial corporations. They point out that embracing calculated risks promotes an innovative culture within a corporation leading to an upsurge in performance. Additionally, according to Mumtaz et al (2021) and Mohamad et al. (2023), taking risks allows listed non-financial corporations to recognize and seize market opportunities that others may shun. Such a proactive approach to risk leads to expansion, diversification and new revenue streams in the market leading to an upsurge in performance. On the contrary, there are contradicting studies that propose a negative link between risk-taking and organizational performance. For instance, Mustapha et al (2022) argue that not all risks result in positive outcomes hence taking risks may result in heavy financial losses eventually decreasing the levels of corporate performance. Similarly, Tran et al. (2022) and Sajid et al (2023) explain that continuous exposure to failed risks results in low morale and job dissatisfaction among workers resulting in retention problems and poor performance. Despite many studies being conducted globally regarding corporate risk taking and performance, very few have been conducted to understand the dynamics at play in the context of SSA creating room for research in the SSA region.

2.4 Conceptual Framework

Ownership structure, cash holding and risk taking were conceptualized as the explanatory variables affecting the performance of SSA non-financial listed corporations. On the other hand, financial performance was conceptualized as the dependent variable which depended on ownership structure, cash holding and risk taking. The dependent and independent variables were controlled by five control variables namely; board independence (BI), gross domestic product (GDP), firm age, firm size and an industry dummy (INDMY).

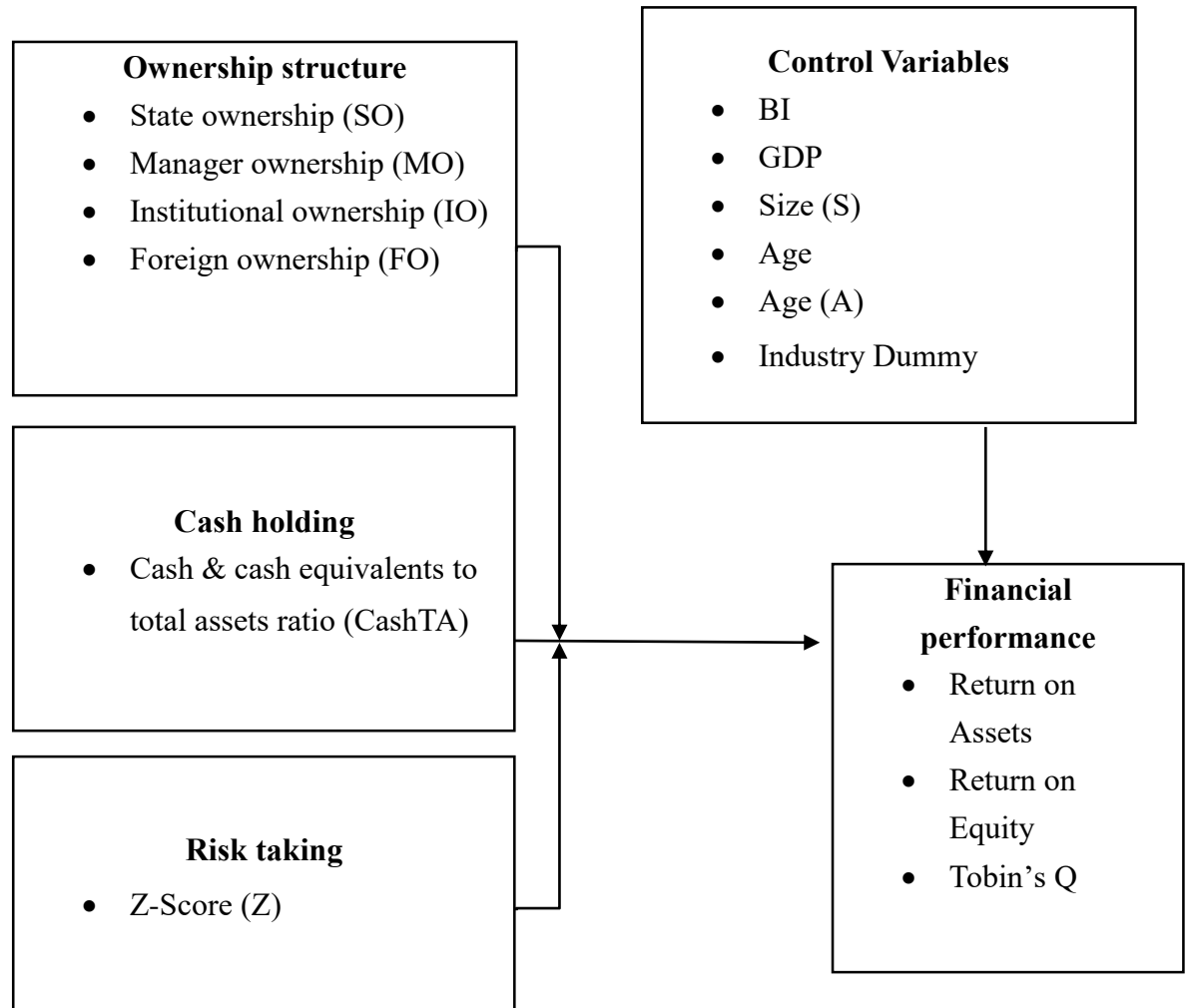


Figure 2.1: Conceptual Framework

2.5 Summary of Literature Review

Numerous studies have been done in the area of corporate financial performance. This study focused on ownership structure, cash holding, risk taking and the performance of SSA listed non-financial firms. Free cash flow, agency, trade-off and modern portfolio theories underpin the study. The free cash flow theory serves as a guiding framework for understanding the implications of excess cash on shareholders' value and managerial decisions. The agency theory describes how a corporation's board of directors' cash holding and risk-taking actions affects its financial performance. The trade-off theory proposes that firms select optimum cash levels by comparing the benefits and costs of holding cash. According to the MPT, firms can combine investments with different levels of risk and return to create a portfolio that optimizes returns and minimizes risk. A conceptual

framework showing the dependent, independent and control variables is also given in the form of a drawing. From the reviewed literature, Ownership concentration influences cash holdings and risk taking, which impacts non-financial listed firm's financial performance. Higher levels of cash holdings by the managers are linked to lower levels of risk taking which is linked to lower levels of performance. Firms with greater proportions of outside ownership, for instance, institutional investors and state shareholders, are likely to hold higher cash reserves and take on less risk. This is because outside owners are usually more concerned with preserving capital and minimizing risk, which can lead to lower short-term returns but also improved long-term financial performance. On the other hand, closely held firms as in the case of managerial ownership, are more likely to use their cash reserves to invest in high-risk projects or acquisitions that can potentially yield higher returns in the short term but could also be detrimental to the firm's long-term financial performance.

2.6 Research Gaps

The reviewed studies showed that ownership structure, cash holding and risk taking's influence on financial performance is not clear. The reviewed literature showed that the influence of risk taking on a corporation's financial performance is conflicting. For instance, Byungmo (2016) and Dat (2020) found a direct relation between risk taking and the performance of listed non-financial organizations while Mallin (2018) and Mao (2022) found a negative relation between risk taking and the performance of non-financial listed firms. It is also unclear how cash holdings affect performance since existing studies have posited conflicting findings. Chireka (2020) and Shah (2012) found a direct relation between cash holdings and performance of non-financial listed firms while Vijayakumaran (2017) and Efsthathois (2022) found an inverse relation between cash holdings and performance of listed non-financial corporations. Appendix IV provides all contextual and methodological gaps spotted in existing literature.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The segment sets forth the techniques used to conduct the study. Specifically, the segment outlines the study's design, target population, data collection procedures, data analysis techniques and operationalization and measurement of study variables. Diagnostic tests are also presented to ensure the correct model specification.

3.2 Research Design

Causal comparative design is utilized in this study. Causal comparative design is a non-experimental method used to identify the cause-and-effect relationship between variables (Javed, 2021). For this study, causal comparative design aids in determining the nature of cause-and-effect relationship existing between ownership structure, cash holding, risk taking and performance of SSA non-financial listed firms. Furthermore, causal comparative research design was instrumental in comparing the study findings among the agricultural, manufacturing and construction sectors of SSA listed non-financial firms.

3.3 Target Population

The research study targeted all 334 non-financial firms listed in Sub-Saharan Africa Securities Exchanges. The study targeted listed non-financial corporations because they are not subject to strict regulatory requirements as compared to their financial counterparts in SSA Securities Exchanges (Efstathois, 2022). Census was used to obtain detailed data on all the 334 SSA listed non-financial firms from the year 2016 to 2021. Appendix III presents a list of the SSA countries represented in the study.

Utilizing the study's causal comparative design, a sub-sector comparison was undertaken to further understand the association between ownership structure, cash holding, risk-taking and performance of SSA-listed non-financial corporations. According to Almustafa et al. (2023) the agricultural, manufacturing and construction industries are the significant industries that drive SSA's economy.

Data was sourced from the annual reports of 83 Sub-Saharan listed non-financial corporations for six years, ranging from 2016 to 2021. The decision to start the study's sample from 2016 was motivated by the desire to integrate a recent timeframe crucial for capturing contemporary developments in ownership structures, cash holding practices and risk-taking behaviours of SSA listed non-financial firms. The study's initial sample size was 334 firms, however the sample was decreased to 83 firms as a result of incomplete data from some of the SSA-listed non-financial firms during the study's duration. The inclusion

criteria used to arrive at the study’s sample involved including all the firms with complete data from 2016 to the year 2021. On the contrary, the study excluded any firm that had missing data for any year covered during the study’s duration. Additionally, the study excluded any SSA country that did not have a functional securities exchange during the study’s duration. A detailed sample selection process is provided in table 1.

In addition, non-financial corporations were chosen due to the varied approaches to ownership structure, cash holding and risk-taking behaviour which influences the performance of agricultural, manufacturing and construction firms in contrasting ways. This sample helps the study to easily implement its methodology of comparing the outcome of each sector to determine variations in their respective performances.

Table 3.1: Sample Selection Process

Step	Number of firms	Number of observations
All SSA listed non-financial firms as at 2021	334	-
Agricultural firms with incomplete data	(46)	-
Manufacturing firms with incomplete data	(35)	-
Construction firms with incomplete data	(37)	-
Telecommunication firms with incomplete data	(35)	-
Real Estate firms with incomplete data	(39)	-
Energy firms with incomplete data	(23)	-
Commercial and Retail firms with incomplete data	(36)	-
Final Sample	83	498

3.4 Data Collection Instruments

Data was drawn from the audited annual reports and financial statements from 2016 to 2021, of all the 83 SSA-listed non-financial firms. The collected data was recorded in the data collection sheet. Appendix II provides the data collection sheet used to collect and record the study’s data during the study’s duration.

3.5 Data Collection Procedures

An introductory letter from University of Embu was obtained, after the research proposal's approval, which helped obtain a permit from NACOSTI. The research license granted by NACOSTI is provided in Appendix I. Data from audited financial statements and annual reports was collected and recorded in the data collection sheet for each firm from 2016 to

2021. This was the period when firms listed in SSA reported severe decrease in financial performance.

3.6 Operationalization and Measurement of Study Variables

This segment sets forth the operationalization and measurement techniques of the study's variables. Specifically, the segment explains how the dependent, explanatory and control variables were measured. The operationalization and measurement of the study's variables is as depicted in appendix III.

3.6.1 Measurement of Dependent Variable

The dependent variable in the study was corporate financial performance. Three measures of performance used in the study were return on corporate assets (ROA), return on corporate equity (ROE) and Tobin's Q. ROA was used to determine how well Sub-Saharan listed non-financial corporations managed their assets to generate earnings (Chin et al., 2022). ROA was obtained as net income divided by total corporate assets. On the other hand, ROE was utilized to assess the effectiveness of Sub-Saharan listed non-financial corporations in using equity capital to generate income for shareholders (AL-Shammari, 2021). ROE was obtained as net income divided by total shareholder's equity. Moreover, Tobin's Q was used to evaluate the market value of Sub-Saharan listed corporations relative to the replacement cost of their assets. Tobin's Q was obtained as the market capitalization of Sub-Saharan listed non-financial corporations divided by their respective book value of assets.

3.6.2 Measurement of Explanatory Variables

Explanatory variables for the study were ownership structure, cash holding and risk-taking. Four indicators of organizational ownership employed were management ownership (MO), institutional ownership (IO), state ownership (SO) and foreign ownership (FO). These four types of ownership were used in this study because they are the common types of ownership as suggested by Muturi and Pila (2022). The study measured cash holding as total cash and cash equivalents divided by total corporate assets. The study used a ratio of total cash to total assets to measure cash holding since as suggested by Boamah et al. (2021), it considers the proportions of cash relative to corporate assets giving insight into the liquidity of the firm's resources. On the other hand, risk-taking was measured using the Z-Score. The Z-Score assesses a company's financial health providing a comprehensive view of its risk profile (Kogler, 2023). In addition, Zhou et al. (2023) suggest that the Z-Score is crucial for offering a more holistic risk assessment than single-factor methods. The Z-Score was obtained through dividing the sum of ROA and equity to asset ratio by the standard deviation of ROA for listed non-financial corporations. ROA was implemented in the

calculation of the Z-Score as opposed to ROE and Tobin's Q because ROA considers a corporation's overall capability to generate income from its total assets hence offering a more inclusive measure of operational efficiency (Tsai, 2023). ROE focuses particularly on equity and does not capture a corporation's effectiveness in utilizing both debt and equity for increased corporate performance (Tran et al., 2022). Moreover, according to Bsoul et al. (2022), Tobin's Q gauges the market value of a corporation's assets relative to their replacement cost emphasizing more on market perception.

3.6.3 Measurement of Control Variables

The study's control variables were board independence, GDP, age, size and industry dummies. Board independence, age and corporate size were utilized in the study because they are the commonly used variables in studies revolving around corporate ownership, cash holding and risk taking. GDP was utilized in the study to capture external factors that influence the association between corporate ownership, cash holding, risk taking and performance. Industry dummies were generated to capture cross-industry variations that could impact the linkage between cash holding, risk-taking and performance of Sub-Saharan listed corporations.

Board independence was obtained as the total number of independent directors sitting on the board of directors of listed non-financial corporations during the study's duration. GDP was measured as the GDP growth rate during the study's duration. On the other hand, age was obtained as the total number of years since incorporation for each listed non-financial corporation. Size was measured as the natural logarithm of total assets of listed non-financial corporations during the study's period. Appendix III presents the measurement and operationalization of study variables.

3.7 Data Processing and Analysis

Descriptive statistics (means, median, maximum and minimum) were used to analyze the study data. The study utilized the dynamic panel data model with generalized methods of moments (GMM) framework. The model was crucial for accommodating unbalanced panels and multiple endogenous variables (Kusa, 2017). The study will employ two step system GMM. The two step system GMM model was suitable for this study because, it was a more consistent, powerful and efficient estimator than one step GMM model since it better helps to deal with the problem of endogeneity. The study used three separate models to assess the linkage between ownership structure, cash holding, risk taking and the performance of SSA-listed non-financial corporations from the agricultural, manufacturing and construction industries. The specific models for each of the explanatory variables used to achieve the study's objectives are as presented herein.

(1) Ownership structure and performance of SSA-listed non-financial corporations

$$Y_{it} = \beta_0 + \beta_1 Y_{it-1} + \beta_2 OS_{it} + \beta_3 BI_{it} + \beta_4 GDP_{it} + \beta_5 Age_{it} + \beta_6 Size_{it} + \beta_7 INDMY_{it} + \alpha_i + \mu_{it} \dots \dots \dots 3.1$$

(2) Cash Holding and performance of SSA-listed non-financial corporations

$$Y_{it} = \beta_0 + \beta_1 Y_{it-1} + \beta_2 CH_{it} + \beta_3 BI_{it} + \beta_4 GDP_{it} + \beta_5 Age_{it} + \beta_6 Size_{it} + \beta_7 INDMY_{it} + \alpha_i + \mu_{it} \dots \dots \dots 3.2$$

(3) Risk Taking and performance of SSA-listed non-financial corporations.

$$Y_{it} = \beta_0 + \beta_1 Y_{it-1} + \beta_2 RT_{it} + \beta_3 BI_{it} + \beta_4 GDP_{it} + \beta_5 Age_{it} + \beta_6 Size_{it} + \beta_7 INDMY_{it} + \alpha_i + \mu_{it} \dots \dots \dots 3.3$$

Where; Y_{it} represents performance, β_0 shows the intercept, $\beta_1 Y_{it-1}$ represents the dynamic effect, OS_{it} represent ownership structure variables, CH_{it} represents cash holding variable, RT_{it} represents risk-taking variable, BI, GDP, Age, Size and INDMY represent control variables, α_i represent time-invariant random heterogeneity and μ_{it} represents the error term.

3.8 Diagnostic Tests

The convention is normally to undertake post-estimation diagnostic tests when utilizing system GMM. The tests that were conducted were, Arellano Bond test, Hansen test and the F ratio test. Arellano Bond test was used to tests for zero autocorrelation between error terms where AR (1) was accepted and AR (2) rejected. Hansen test, was used to test for over identifying restrictions, with a null hypothesis that, over identifying restrictions were valid. Lastly, the F ratio test was used to test for the joint significance of the model, with the null hypothesis that the model with no independent variables fits the data.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Chapter Introduction

The chapter sets forth the discussion of the actual results obtained while conducting the study. Specifically, the chapter discusses the results revolving around summary statistics and the outcome of GMM analysis. In addition, robustness checks per objective are also presented herein.

4.2 Summary Statistics

Summary statistics serve as a foundation for further statistical analyses and contribute to the overall understanding of research findings (Ahmad, 2021). The study's summary statistics are as provided in table 4.1. Table 4.1 shows the mean and standard deviation in brackets for non-financial corporations from the agricultural, manufacturing and construction industries listed in Sub-Saharan Securities Exchanges.

Table 4.1: Summary Statistics

Overall Summary Statistics														
Variable	ROA	ROE	Tobin's Q	MO	SO	IO	FO	Cash TA	ZScore	BI	GDP	Age	Size	INDMY
	.080 (.05)	.150 (.09)	1.200 (.60)	.150 (.10)	.100 (.08)	.300 (.15)	.200 (.12)	.09 (.07)	3.500 (1.20)	.600 (.20)	.005 (.02)	25.00 (10.12)	.075 (.15)	.050 (.45)
Sub-Sector Summary Statistics														
Industry	ROA	ROE	Tobin's Q	MO	SO	IO	FO	Cash TA	ZScore	BI	GDP	Age	Size	INDMY
Agriculture	.187 (.49)	.262 (.45)	.550 (.37)	.082 (.44)	.033 (.42)	.475 (.40)	.41 (.39)	.086 (.02)	2.214 (2.65)	3.966 (1.90)	.059 (.14)	61.651 (30.82)	4.874 (.38)	.427 (.24)
Manufacturing	.192 (.32)	.279 (.43)	.569 (.12)	.211 (.25)	.053 (.13)	.527 (.30)	.209 (.38)	.098 (.03)	2.209 (.45)	4.068 (1.01)	.090 (.15)	68.547 (15.40)	4.470 (.40)	.538 (.11)
Construction	.196 (.56)	.258 (.43)	.551 (.25)	.112 (.44)	.101 (.42)	.408 (.40)	.379 (.40)	.015 (.06)	.017 (1.33)	1.028 (1.40)	.033 (.14)	48.412 (26.02)	4.402 (.73)	.241 (.76)

Table 4.1 provides the mean and standard deviation of SSA-Listed non-financial corporations.

Table 4.1 showcases the study's summary statistics. The overall summary statistics imply that the mean ROA of SSA-listed non-financial corporations was 0.080 depicting that, on average during the study's duration, SSA-listed non-financial corporations generated 8% of their income from asset deployment. The mean ROE for SSA-listed non-financial corporations was 0.150 implying that, on average during the study's duration, SSA-listed

non-financial corporations generated an income of 15% for every shilling deployed by corporate shareholders. Regarding Tobin's Q, table 4.1 showcases a mean Tobin's Q of 1.200 for SSA-listed non-financial corporations. This implies that on average during the study's duration, the assets of SSA-listed non-financial corporations were valued above their replacement costs by the market. Concerning the explanatory variables, the overall statistics, as depicted by table 4.1, showcase that the mean MO, SO, IO and FO were 0.15, 0.1, 0.3 and 0.2 respectively. This suggests that on average during the study's duration, 15%, 10%, 30% and 20% of SSA-listed non-financial corporations were management, state, institutionally and foreign owned respectively. In addition, the overall statistics implied a mean CashTA of 0.09 suggesting that on average during the study's duration, SSA-listed non-financial corporations held 9% of their assets in cash. The mean ZScore for SSA-listed non-financial corporations, as depicted in table 4.1's overall statistics, was 3.5. This implies that, on average during the study's duration, SSA-listed non-financial corporations were financially sound and healthy.

Additionally, Table 4.1 also provides sub-sector summary statistics. The sub-sector summary statistics indicate that the mean ROA of agricultural, manufacturing and construction firms was 0.187, 0.192 and 0.196 respectively. This implies that on average during the study's duration, agricultural, manufacturing and construction firms generated an income of 18.7%, 19.2% and 19.6% from asset deployment respectively. The high returns demonstrated by agricultural, manufacturing and construction firms denote that they were efficient in using their assets to generate earnings during the study's duration. Additionally, table 4.1 demonstrated a mean ROE of .262, .279 and .258 for agricultural, manufacturing and construction firms respectively. This suggests that on average, agricultural, manufacturing and construction firms generated an income of 26.2%, 27.9% and 25.8% for every shilling deployed by the shareholders respectively. These returns further imply that agricultural, manufacturing and construction firms were profitable ventures for the shareholders during the study's duration. Furthermore, Tobin's Q demonstrated by agricultural, manufacturing and construction firms was .550, .569 and .551, implying that on average during the study's duration, the assets of agricultural, manufacturing and construction firms were valued below their replacement cost by the market.

Concerning the explanatory variables, agricultural, manufacturing and construction firms exhibited a mean MO of 0.082, 0.211 and 0.112 respectively. This implied that, on average, 8.2%, 21.1% and 11.2% of SSA listed non-financial corporations from the agricultural, manufacturing and construction industries respectively were managerially owned during the study's duration. Table 4.1 also demonstrated a mean SO of .033, .053 and .101 for

agricultural, manufacturing and construction firms respectively, implying that, on average, 3.3%, 5.3% and 10.1% of agricultural, manufacturing and construction firms respectively were government owned during the study's duration. Regarding institutional ownership (IO), agricultural, manufacturing and construction corporations exhibited a mean of .475, .527 and .408 respectively denoting that on average during the study's duration, 47.5%, 52.7% and 40.8% of agricultural, manufacturing and construction companies respectively, were institutionally owned. In addition, table 4.1 exhibited a mean FO of .41, .209 and .379 for agricultural, manufacturing and construction firms respectively, implying that on average during the study's duration, 41%, 20.9% and 37.9% of agricultural, manufacturing and construction firms were owned by foreigners.

Moreover, agricultural, manufacturing and construction corporations exhibited a mean cashTA of .086, .098 and .015 respectively, implying that on average during the study's duration, agricultural, manufacturing and construction corporations held 8.6%, 9.8% and 1.5% of their total assets in cash respectively. The Z-Score exhibited a mean of 2.214, 2.209 and .017 for agricultural, manufacturing and construction corporations respectively. This denotes that agricultural and manufacturing companies are financially healthy and have a lower risk of bankruptcy since they had a Z-Score above 2 during the duration of the study. However, with a mean Z-Score of .017, the construction companies are below the threshold of 2 implying they are at a higher risk of financial bankruptcy.

4.3 Regression Results

The outcomes of the two-step GMM analysis are presented herein. The outcome shows the coefficients, standard errors and the t-values for each explanatory and control variable with regards to ROA, ROE and Tobin's Q.

4.3.1 Ownership structure and Performance

This section presents a discussion of the association between ownership structure and the performance of SSA-listed non-financial corporations. The discussion adopts a funnel approach, initially discussing the overall results followed by sector-specific discussions and comparisons.

Table 4.2: Ownership structure and performance of SSA non-financial corporations

	ROA			ROE			Tobin's Q		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag	.320***	.050	6.40	.280***	.045	6.22	.350***	.055	6.36
MO	.045**	.020	2.25	.060**	.025	2.40	.032*	.018	1.78
SO	.038*	.022	1.73	.050*	.028	1.79	.025	.020	1.25
IO	.055***	.015	3.67	.070***	.020	3.50	.040**	.016	2.50
FO	.042**	.018	2.33	.065**	.022	2.95	.035*	.019	1.84
BI	.020*	.012	1.67	.025*	.014	1.79	.015	.010	1.50
GDP	.008	.005	1.60	.010*	.006	1.67	.006	.004	1.50
Age	.005*	.003	1.67	.007*	.004	1.75	.004	.003	1.33
Size	.012	.010	1.20	.015	.012	1.25	.010	.009	1.11
INDMY	.018*	.011	1.64	.022*	.013	1.69	.016	.010	1.60

***p<.01, **p<.05, *p<.1

Table 4.2 provides the overall results concerning ownership structure and the performance of SSA-listed non-financial corporations. The findings indicate positive lags of ROA, ROE and Tobin's Q which were significant at 1%. The positive coefficients for the lags of ROA, ROE and Tobin's Q imply that the current performance of SSA-listed non-financial corporations is positively influenced by the previous year's performance (Gathuma, 2019).

With regards to ownership structure, table 4.2 denotes a positive association between ownership structure and the performance of SSA-listed non-financial corporations. The positive association suggests that an upsurge in corporate ownership regardless of the type, improves the performance of SSA-listed non-financial corporations. Specifically, table 4.2 demonstrate positive coefficients for MO, SO, IO and FO, implying that an increase in management, state, institutional and foreign ownership increases the performance of SSA-listed non-financial corporations. As suggested by Durant and Rosenstein (2020) an increase in corporate ownership increases corporate oversight and monitoring in the case of institutional and foreign ownership, increases access to government resources in the case of government ownership and eradicates agency conflicts in the case of management ownership. Similarly, while focusing on foreign ownership, Gopikumar and Niang (2020) explained that an increase in foreign ownership increases exposure to global expertise and networks which bring best practices for improved corporate performance.

However, the results presented in table 4.2 contradict those of Graham and Bhattacharya (2016) who argue that increases in corporate ownership hurts the performance of listed non-financial corporations. According to Graham and Bhattacharya (2016) increases in corporate ownership increases the chances of manager-owned corporations to avoid risky but profitable ventures to protect their interests in the case of management ownership, political interferences in the case of state ownership and short-termism in the case of institutional ownership where non-financial firms over emphasize quarterly earnings as opposed to long-term growth.

4.3.1.1 Robustness Checks

The robustness checks conducted to ascertain the robustness of GMM analysis concerning the association between ownership structure and performance of SSA-listed non-financial corporations are presented herein. The study utilized the 2SLS technique to ascertain the robustness of GMM analysis regarding the linkage between SSA-listed non-financial corporations' ownership structure and performance. The 2SLS technique was used because, just like the GMM method, it helps to deal with the problem of endogeneity (Mushafiq et al., 2021). The outcome of the 2SLS estimation is as presented in table 4.3.

Table 4.3: Instrumental Variables (2SLS) Regression

	ROA			ROE			Tobin's Q		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
MO	.38	.69	.55	.16	.56	.29	3.82	2.05	-1.86
SO	.25	.43	.58	.01	.56	.02	3.60***	1.04	-3.46
IO	.62	.46	1.35	.58	.58	1.00	4.06***	1.06	-3.83
FO	.38***	.12	3.17	.21	.54	.39	3.62***	.63	5.75
BI	.21	2.79	.08	.51	2.76	.18	5.84***	1.65	3.54
GDP	.17	.16	1.06	.062	.158	.39	.018	.095	.19
Age	.002**	.001	2.19	.01	.01	1.00	-.01	.01	-1.00
Size	.17***	.05	3.48	.08	.05	1.6	-.12***	.03	-4.00
INDMY	.06	.25	.24	.06	.36	.17	-0.01	.17	-.06

***p<.01, **p<.05, *p<.1

The outcome of 2SLS estimation demonstrated similar findings to those of the GMM estimation. Specifically, the outcome of 2SLS estimation demonstrated consistent coefficient signs with those of GMM estimation. 2SLS estimation demonstrated positive coefficient sign for MO, SO, IO and FO for non-financial listed corporations implying that an increase in MO, SO, IO and FO increase the performance of SSA-listed non-financial corporations. However, there is a divergence in the standard errors as 2SLS produced larger standard errors when compared those produced by the GMM technique. This is because GMM's optimal weighting matrix accounts for heteroskedasticity in the moment conditions while 2SLS requires manual adjustment for robust standard errors (Khan et al., 2021).

4.3.1.2 Sub-Sector Comparisons

4.3.1.2.1 Ownership Structure and Return on Assets

Table 4.3 provides the outcome of the GMM analysis done to ascertain the association between ownership structure and ROA of SSA-listed non-financial corporations from the agricultural, manufacturing and construction sectors.

Table 4.4: Ownership structure and ROA

	Agriculture			Manufacturing			Construction		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag1	.16*	.09	1.78	.13***	.04	3.25	.26**	.13	2.00
MO	.27**	.13	2.07	.08***	.02	3.13	-.28**	.14	-2.00
SO	.29**	.14	2.15	.09***	.03	3.00	-.56**	.24	-2.33
IO	.74**	.35	2.11	.16***	.04	3.57	-.63*	.35	-1.80
FO	.69**	.31	2.23	.80***	.25	3.20	-.90***	.30	-3.00
BI	.01	.01	1.00	.07***	.02	3.5	.17	1.41	.12
GDP	.04	.04	1.00	.02**	.01	2.00	.16	.16	1.00
Age	-.21	.17	-1.24	-.05**	.02	-2.5	-.01	.02	-.5
Size	.01	.06	.17	-.15	.15	-1.00	.15**	.06	2.5
INDMY	-.10*	.06	-1.67	.90**	.44	2.05	.05	.11	.45

***p<.01, **p<.05, *p<.1

Table 4.4 demonstrates the linkage between ownership and ROA of SSA-listed non-financial corporations in the agricultural, manufacturing and construction industries. The results indicate significant positive coefficients for the lag of ROA of agricultural, manufacturing and construction corporations. This implies that the current performance of agricultural, manufacturing and construction corporations is positively influenced by their previous performance in their respective industries

The results depict significant positive association between ownership structure in terms of management, state, institutional and foreign ownership and ROA of SSA-listed non-financial corporations from the agricultural and manufacturing industries. The association between MO, SO, IO, FO and ROA of agricultural listed firms were significant at 5% while the association between MO, SO, IO, FO and ROA for manufacturing listed corporations was significant at 1%. This implies that an upsurge in management, state, institutional and foreign ownership, upsurges the performance of SSA listed non-financial corporations. Drawing from the agency theory, Escandon and Salas-Paramo (2024) explain that increasing management ownership as depicted in the agricultural and manufacturing sectors leads to an alignment in management and shareholders' interests. This in turn reduces agency costs in these sectors which in turn leads to an upsurge in corporate performance. Contrastingly, Habib et al (2022) argue that increasing management ownership does not profit listed non-financial corporations since corporate performance of listed non-financial firms is determined by other outside factors like exchange rates and economic conditions. Table 4.4 also depicted that an increase in state ownership leads to an increase in the performance of listed non-financial corporations. This is the case because the agricultural and manufacturing sectors are capital intensive with projects that require huge capital investments. Increasing government ownership provides avenues for accessing investment funds which when deployed into the capital-intensive projects provide lucrative returns

which eventually upsurge the performance of listed non-financial corporations (Gul et al., 2020). Similarly, drawing from the resource-based theory Grabowski (2016) explained that increasing government ownership availed state support in terms of funds and equipment to listed non-financial corporations. This in turn, leads to an increase in the resources available to listed non-financial firms for deployment. Moreover, table 4.4 showed a positive association between institutional and foreign ownership, and the performance of listed non-financial corporations in the agricultural and manufacturing industries. This implies that an upsurge in institutional and foreign ownership leads to an upsurge in the performance of SSA-listed non-financial corporations from the agricultural and manufacturing sectors. This is the case because institutional and foreign ownership leads to increased corporate monitoring. Increased corporate monitoring leads to increased accountability and efficiency which in turn leads to an increase in the performance of agricultural and manufacturing firms.

Table 4.4, however demonstrated significant negative association between ownership structure and ROA of construction firms listed in SSA Securities Exchanges. This is the case because, as suggested by Hussain and Hadi (2019), increased management ownership leads to entrenchment with entrenched directors acting on their own behalf as opposed to the corporation at large. This leads to the usage of corporate assets for personal gains, which in turn reduces the corporations' ROA in case of losses, ultimately decreasing the performance of construction-listed corporations. Increasing state ownership on the other hand, leads to an increase in political interferences. Construction firms end up struggling to pursue lucrative investment opportunities that go against government interests, which in turn hurts their performance. Similarly, Gong and Wang (2021) explained that construction firms with strong ties to the government ended up grappling with corruption incidents which in turn led to decreasing performance. Regarding institutional ownership, table 4.4 also implies that an increase in institutional ownership hurts the performance of construction corporations listed in SSA Securities Exchanges. This is the case because, as posited by Agoraki et al (2023), construction firms with increased institutional investors invest in short term projects because institutional investors prioritize short-term benefits as opposed to long-term benefits which in turn hurts the long-term benefits eventually hurting corporate performance. increased foreign ownership also hurts the performance of construction listed firms because foreign investors often have limited knowledge and information about the local markets compared to local investors (Boamah et al., 2021). This information asymmetry hinders strategic decision making which in turn hurts the performance of construction listed firms.

4.3.1.2.2 Ownership Structure and Return on Equity

This segment sets forth the results concerning the association between ownership structure and ROE of agricultural, manufacturing and construction firms listed in SSA securities exchanges. The results are as presented in table 4.5.

Table 4.5: Ownership Structure and ROE

	Agriculture			Manufacturing			Construction		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag1	.32***	.11	2.82	.30***	.10	3.00	.26**	.11	2.36
MO	.35**	.15	2.33	.07***	.02	3.50	-.08**	.04	-2.00
SO	.21	.17	1.24	.05**	.02	2.50	-.01	.02	-.5
IO	.05*	.03	1.67	.04	.03	1.33	-.33	2.33	-1.14
FO	.02	.05	0.4	.15	.15	1.00	-.03	.04	-.75
BI	.05*	.03	1.67	.04	.03	1.33	.33	1.33	.25
GDP	.02	.04	.5	.02**	.01	2.00	.04	.26	.15
Age	-.03	.02	-1.5	-.30	.20	-1.5	-.01	.01	1.00
Size	.01	.08	.13	-.07	.19	-.37	.07	.06	1.17
INDMY	-.09*	.05	-1.8	.65*	.37	1.77	.16	.16	1.00

***p<.01, **p<.05, *p<.1

Table 4.5 showcases the association between ownership structure and the ROE of SSA-listed non-financial corporations. Table 4.5 implied positive coefficients for the lag of ROE implying that the previous year's performance positively influences the current performance of SSA-listed non-financial corporations. In addition, table 4.5 demonstrated a positive relationship between management, state, institutional and foreign ownership, and ROE of agricultural and manufacturing firms listed in SSA Securities Exchanges. This denotes that an increase in management, state, institutional and foreign ownership improves the performance of agricultural and manufacturing companies. In the agricultural and manufacturing industries, where firms are exposed to increased market fluctuations (Jalali et al., 2020), allowing corporate managers to have a significant stake in the company helps to align owner-manager interests which in turn leads to incentivized risk-averse decisions leading to better performance outcomes. Similarly, Habib et al (2022) proposed that increased management ownership leads to reduced costs and production efficiency in agricultural and manufacturing corporations respectively, leading to improved corporate performance. In addition, increased state ownership offers agricultural and manufacturing firms increased stability and easier access to funds resulting in efficient utilization of shareholder equity leading to increased performance. Contrastingly, Lau and Chen (2021) argue that increased state ownership hurts the ROE of listed non-financial corporations since shareholders equity is mostly used to actualize government interests and projects as opposed to shareholder interests.

Table 4.5 also demonstrated a positive association between institutional and foreign ownership, and ROE of SSA-listed agricultural and manufacturing corporations. This suggests that increased institutional and foreign ownership increased the performance of agricultural and manufacturing firms. According to Manogna (2020) institutional and foreign ownership allows for increased corporate monitoring leading to increased efficiency and accountability while deploying shareholders' funds. Increased efficiency and accountability lead to increased ROE which eventually leads to increased corporate performance of agricultural and manufacturing corporations. In line with this finding, while drawing from the resource-based theory, Du et al (2025) proposed that increased institutional and foreign ownership provided listed non-financial firms with increased resources in terms of cash and equipment which are utilized to achieve higher returns on shareholders' funds eventually leading to increased corporate performance.

Table 4.5, however demonstrated a negative association between ownership structure and ROE of construction listed firms. This is the case because, as suggested by Hussain and Hadi (2019), increased management ownership leads to entrenchment with entrenched directors acting on their own behalf as opposed to the corporation at large. This leads to the deployment of shareholders' funds for personal gains, which in turn reduces the corporations' ROE in case of losses, ultimately decreasing the performance of construction-listed corporations. Increased state ownership on the other hand, leads to increases in political interferences making construction firms struggle to pursue lucrative investment opportunities that go against government interests, which in turn hurts their performance. Similarly, Gong and Wang (2021) explained that construction firms with strong ties to the government ended up grappling with corruption incidents which in turn led to decreasing performance. Regarding institutional ownership, table 4.5 also implies that an increase in institutional ownership hurts the performance of construction corporations listed in SSA Securities Exchanges. This is the case because, as posited by Agoraki et al (2023), construction firms with increased institutional investors invest in short-term projects because institutional investors prioritize short-term benefits as opposed to long-term benefits, which in turn hurts the long-term benefits, eventually hurting corporate performance. increased foreign ownership also hurts the performance of construction-listed firms because foreign investors often have limited knowledge and information about the local markets compared to local investors (Boamah et al., 2021). This information asymmetry hinders strategic decision-making, which in turn hurts the performance of construction listed firms in SSA Securities Exchanges.

4.3.1.3 Ownership Structure and Tobin's Q

Table 4.6 showcases the results obtained when probing the association between ownership structure and Tobin's Q of SSA-listed agricultural, manufacturing and construction firms.

Table 4.6: Ownership Structure and Tobin's Q

	Agriculture			Manufacturing			Construction		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag1	.38***	.09	4.2	.82***	.29	2.83	.51*	.27	1.89
MO	.13***	.02	6.5	.08	.05	1.6	-.69**	.31	-2.23
SO	.11	.13	.85	.05	.05	1.00	-.14	.09	-1.56
IO	.03	.02	1.5	.22**	.09	2.44	-.03	.02	-1.5
FO	.08***	.03	2.66	.05***	.01	5.00	-.07**	.03	-2.33
BI	.05	.05	1.00	.03	.02	1.5	.22**	.09	2.44
GDP	.01	.01	1.00	.02	.06	.33	.01	.75	.01
Age	-.10	.10	-1.00	-.43	.29	-1.48	-.14	.09	-1.56
Size	.08	.05	1.6	-.11	.13	-.85	.09***	.03	3.00
INDMY	-.01**	.05	-2	.68*	.39	1.74	.13	.08	1.63

***p<.01, **p<.05, *p<.1

Table 4.6 exhibits the association between ownership structure and Tobin's Q of SSA listed non-financial corporations. Table 4.6 demonstrated a positive linkage between ownership structure and Tobin's Q of agricultural and manufacturing corporations suggesting that an increase in management, state, institutional and foreign ownership results in an increase in the performance of agricultural and manufacturing corporations. This is the case because, management ownership for instance, leads to enhanced operational efficiencies leading to increased Tobin's Q eventually leading to increased corporate performance for agricultural and manufacturing firms. Similarly, Endri (2020) proposed that increased director ownership makes corporate managers to prioritize long-term investment projects leading to increased corporate performance. State ownership on the other hand, allows agricultural and manufacturing companies to enjoy synergies with state policies (Kogler, 2023) ensuring better access to funding leading to increased performance for agricultural and manufacturing firms. Contrastingly, drawing from the agency theory, Gopikumar (2020) argues that increased state ownership diverts strategic decisions to favour government interests, leading to increased conflicts between shareholders and corporate directors, eventually leading to poor performance.

Table 4.6 also showed that increased institutional and foreign ownership increased corporate performance of agricultural and manufacturing firms. Institutional and foreign ownership provides agricultural and manufacturing firms with strategic advice and expertise which are vital for increased corporate performance (Abubakar et al., 2019). Contrastingly, Dat and

Tran (2020) argue that increased institutional and foreign ownership leads to diverging priorities which results into conflicts concerning where corporate funds should be invested making listed non-financial firms take too long to decide where to invest their funds. Increased decision-making time makes listed non-financial firms miss out on lucrative projects, resulting in decreased performance according to Dat and Tran (2020).

Concerning construction firms, table 4.6 demonstrated a negative linkage between ownership structure and the performance of construction firms. This denotes that increases in ownership structure decreases the performance of construction listed corporations. This is the case because increased ownership structure leads to misalignment of manager-owner interests in the case of management ownership (Abdulahi, 2017), increased political interferences in the case of state ownership (Atif et al., 2019), diverging investment priorities in the case of institutional ownership (Muhammad, 2020) and loss of control and power in the case of foreign ownership (Ping et al., 2016).

4.3.2 Cash Holding and Performance

GMM's outcome concerning the linkage between cash holding and the performance of SSA-listed agricultural, manufacturing and construction firms are presented in this section. The results revolve around the linkage between cash holding, ROA, ROE and Tobin's Q of SSA-listed agricultural, manufacturing and construction firms. The overall results concerning the association between cash holding and the performance of SSA-listed non-financial corporations are provided in table 4.7.

Table 4.7: Cash holding and Performance of SSA non-financial corporations

	ROA			ROE			Tobin's Q		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag	.310***	.048	6.46	.270***	.042	6.43	0.340***	.052	6.54
CashTA	.060***	.015	4.00	.080***	.020	4.00	.045**	.018	2.50
BI	.018*	.011	1.64	.022*	.013	1.69	.014	.009	1.56
GDP	.007*	.004	1.75	.009*	.005	1.80	.005*	.003	1.67
Age	.004	.003	1.33	.006	.004	1.50	.003	.002	1.50
Size	.010	.009	1.11	.012	.010	1.20	.008	.008	1.00
INDMY	.015	.010	1.50	.020*	.012	1.67	.013	.009	1.44

***p<.01, **p<.05, *p<.1

Table 4.7 indicates positive coefficients for the lags of ROA, ROE and Tobin's Q, which were significant at 1%, implying that the previous year's performance positively influences the current year's performance for SSA-listed non-financial corporations. Moreover, Table 4.7 indicates positive coefficients for CashTA of SSA-listed non-financial corporations. This suggests that an increase in cash holding of SSA-listed non-financial corporations increases their performance. This is the case because having excess cash reserves allows SSA-listed non-financial corporations to meet their financial obligations when they fall due, thereby reducing operational frictions (Gul et al., 2020). These findings are similar to those of Han and Qui (2007), who suggested that having excess cash reserves allows listed non-financial corporations to take on lucrative investments when they arise, thereby increasing their corporate performance.

Contrastingly, while drawing from cash irrelevance theory, Kusa (2017) argues that cash holding is irrelevant and that holding excess cash reserves does not necessarily lead to improved performance for SSA-listed non-financial firms as their performance is determined by other factors like increased marketing efforts and quality products. Similarly, drawing from the signalling theory, Lau and Chen (2021) contend that having excess cash reserves erodes investor confidence in non-financial corporations as they signal missed investment opportunities, further signalling decreasing corporate performance.

4.3.2.1 Robustness Check

This segment provides the robustness checks conducted to ascertain the robustness of the study's outcomes concerning cash holding and the performance of SSA-listed non-financial corporations. A ratio of cash holding to total equity (CashTE) was used as an alternative measure of cash holding while ascertaining the robustness of the results concerning cash holding and corporate performance. CashTE measures the effectiveness of listed non-financial corporations in generating income for their shareholders (Mujiyanto, 2022). In

addition, CashTE was selected because of its common occurrence in the literature reviewed by the study (Kungu, 2015; Kusa, 2017; Muhammad, 2022).

Table 4.8: Association between cash holding and performance

	ROA			ROE			Tobin's Q		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag1	.05*	.03	1.67	.08**	.04	2.00	-.08**	.04	-2.00
CashTE	.09*	.05	1.8	.06	.04	1.5	.04**	.02	2.00
BI	.03	.03	1.00	.03***	.01	3.00	.14	.41	.34
GDP	.07	.07	1.00	.02**	.01	2.00	.13	.13	1.00
Age	-.07	.05	-1.4	-.08**	.04	-2.00	-.03	.02	-1.5
Size	.03	.06	.05	-.06	.06	-1.00	.14***	.04	3.5
INDMY	-.09*	.05	-1.8	.80**	.39	2.05	.03	.21	.14

***p<.01, **p<.05, *p<.1

Table 4.8 indicates similar results to those obtained when CASHTA was used as a measure of cash holding. Specifically, the results demonstrated consistent coefficient signs, as in the case when CashTA was used. Table 4.8 indicates positive coefficient signs between CashTE and the performance of SSA-listed non-financial corporations, confirming the robustness of GMM outcomes concerning the association between cash holding and the performance of SSA-listed non-financial corporations. This implies that an increase in cash holding increases the performance of SSA-listed non-financial corporations.

4.3.2.2 Sub-Sector Comparisons

4.3.2.2.1 Cash Holding and Return on Assets

This subsection presents and discusses the results concerning the linkage between cash holding and ROA of agricultural, manufacturing and construction firms listed in SSA security exchanges. The outcomes are as presented in table 4.9.

Table 4.9: Cash Holding and ROA

	Agriculture			Manufacturing			Construction		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag1	.16*	.09	1.78	.13***	.04	3.25	.26**	.13	2.00
CashTA	.07**	.03	2.33	.10**	.05	2.00	-.07**	.03	-2.33
BI	.01	.01	1.00	.07***	.02	3.5	.17	1.41	.12
GDP	.04	.04	1.00	.02**	.01	2.00	.16	.16	1.00
Age	-.21	.17	-1.24	-.05**	.02	-2.5	-.01	.02	-.5
Size	.01	.06	.17	-.15	.15	-1.00	.15**	.06	2.5
INDMY	-.10*	.06	-1.67	.90**	.44	2.05	.05	.11	.45

***p<.01, **p<.05, *p<.1

Table 4.9 demonstrates the linkage between cash holding and ROA of SSA listed non-financial corporations in the agricultural, manufacturing and construction industries. The results indicate significant positive coefficients for the lag of ROA of agricultural, manufacturing and construction corporations. This implies that the current performance of agricultural, manufacturing and construction corporations is positively influenced by their previous performance in their respective industries (Ahmad, 2021). The positive lag for ROA of agricultural, manufacturing and construction firms further implies that the good performance these firms had in the previous year is likely to continue into the near future.

Concerning the explanatory variables, Table 4.9 indicated a positive linkage between CashTA and ROA of agricultural Sub-Saharan listed corporations which was significant at 5%. The positive association implies that an upsurge in the cash holding of agricultural firms leads to an upsurge in the performance of agricultural corporations. According to Javed (2021) and Yilmaz (2024), agricultural corporations typically experience fluctuating cash flows due to seasonal variations in crop cycles and market demand. Holding more cash allows them to manage these fluctuations effectively ensuring smooth operations and timely investments explaining the positive association between cash holding and the performance of agricultural corporations. Similarly, while drawing from the resource-based theory, Nkuruziza et al (2016) noted a positive linkage between cash holding and corporate performance of SSA agricultural corporations explaining that keeping high cash reserves provides an available resource that allow agricultural firms to undertake growth opportunities like acquiring more land and farming equipment. Contrastingly, drawing from the agency theory, Manogna (2020) noted a negative linkage between cash holding and corporate performance of agricultural firms contending that holding excess cash implies missed investment opportunities since the idle cash are not being deployed to maximize shareholders' wealth causing a misalignment between manager-shareholder interests which in turn hurts the overall performance of agricultural firms.

Table 4.9 also demonstrated a significant positive linkage between CashTA and ROA of manufacturing Sub-Saharan listed corporations, implying that an upsurge in the cash holding of manufacturing corporations leads to an upsurge in their performance. The positive association between cash holding and the corporate performance of manufacturing corporations was significant at 5%. Kogler (2023) suggest that manufacturing corporations' operations require substantial working capital to finance inventory, receivables and production cycles. Maintaining higher cash reserves allows manufacturing corporations to manage working capital efficiently ensuring timely fulfilment of orders leading to increasing performance of Sub-Saharan listed manufacturing corporations. Similarly, Barasa et al (2019) explain that keeping high cash reserves enable manufacturing corporations to take advantage of lucrative investment opportunities when they present themselves which in turn leads to an upsurge in their performance. In contrast, drawing from the signaling theory, Grabowski (2016) argues that having excess cash reserves signals a lack of growth prospect to investors who in turn interpret this signal as poor strategic planning by the management of manufacturing corporations. Table 4.9, however, indicated a negative association between CashTA and ROA of construction firms which was significant at 5%. This denotes that an increase in cash holding hurts the performance of construction Sub-Saharan listed corporations. This is the case because, construction projects typically have irregular cash flows due to factors like project delays hence holding excessive cash often leads to inefficiencies in meeting project demands, lowering the performance of construction firms (Khan et al., 2021). Hussain and Hadi (2019) also noted a negative association between cash holding and the performance of construction corporations explaining that construction firms deal with large scale projects that require huge capital investments. Investments in these projects drive the revenue of construction firms hence holding excessive cash reserves leads to under investment in revenue generating projects which in turn hurts their performance.

4.3.2.2.2 Cash Holding and Return on Equity

This segment probes the linkage between cash holding and ROE of SSA-listed agricultural, manufacturing and construction firms. Table 4.10 outlines the findings arrived at while assessing the linkage between cash holding and ROE of SSA-listed non-financial corporations from the agricultural, manufacturing and construction sectors.

Table 4.10: Cash Holding and ROE

	Agriculture			Manufacturing			Construction		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag1	.32***	.11	2.82	.30***	.10	3.00	.26**	.11	2.36
CashTA	.07***	.02	3.5	.07**	.03	2.33	-.08**	.04	-2.00
BI	.05*	.03	1.67	.04	.03	1.33	.33	1.33	.25
GDP	.02	.04	.5	.02**	.01	2.00	.04	.26	.15
Age	-.03	.02	-1.5	-.30	.20	-1.5	-.01	.01	1.00
Size	.01	.08	.13	-.07	.19	-.37	.07	.06	1.17
INDMY	-.09*	.05	-1.8	.65*	.37	1.77	.16	.16	1.00

***p<.01, **p<.05, *p<.1

Table 4.10 provides the outcome of the association between cash holding and ROE of Sub-Saharan listed agricultural, manufacturing and construction companies. Table 4.10 indicates a significant positive lag of ROE for agricultural, manufacturing and construction firms, denoting that the previous year's performance positively influences the current performance of agricultural, manufacturing and construction firms in their respective industries. This also implies that the performance of agricultural, manufacturing and construction firms is to continue into the near future.

Additionally, table 4.10 exhibited a positive association between CashTA and ROE of agricultural corporations which was significant at 1%. This implies that an increase in cash holding of agricultural listed corporations increases their performance. Zaiane et al. (2022) propose that agricultural prices are subject to market volatility influenced by weather conditions, global demand and supply shocks. Cash reserves provide a financial cushion against price fluctuations enabling agricultural firms to navigate turbulent market conditions and maintain stable performance explaining the positive association (Zhou et al., 2023). Similarly, Abubakar et al (2019) noted a positive linkage cash holding and the performance of listed agricultural firms. As suggested by Abubakar et al (2019), excessive cash reserves enable agricultural firms to invest in innovative farming technologies like precision agriculture that allows them to practice sustainable farming which in turn results in upsurged performance.

Contrastingly, Adobor (2020) contends that the agricultural sector is capital intensive and not deploying cash results in lower economies of scale which in turn hurts the performance of agricultural firms. In addition, drawing from the cash irrelevance principle, Adobor (2020) argue that cash holding is irrelevant and does not influence the performance of agricultural companies explaining that factors like weather conditions and commodity prices are the major contributors to the performance of agricultural firms. Table 4.10 also indicated a positive association between CashTA and ROE of Sub-Saharan listed

manufacturing corporations, which was significant at 5%. The positive association implies that an upsurge in cash holding upsurges the performance of manufacturing firms. Tukamuhabwa et al. (2023) posit that manufacturing firms are part of complex supply chains with multiple stakeholders hence maintaining sufficient cash reserves allows them to mitigate supply chain disruptions, leading to stable operations, which in turn improves the performance of Sub-Saharan listed manufacturing corporations.

In line with this finding, Adams et al (2025) explain that manufacturing firms face cyclical patterns of demand with cashflow fluctuating during low demand periods. Having cash reserves enables manufacturing corporations to continue operations during periods of low demanding, resulting in improved operational efficiency, which in turn improves their performance. Contrastingly, Artini and Sandhi (2020) noted a negative association between cash holding and ROE of manufacturing firms, explaining that holding excessive cash lowers investors' confidence in manufacturing corporations making them to under-invest in manufacturing corporations which in turn hurts the performance of manufacturing corporations.

However, concerning Sub-Saharan listed construction corporations, Table 4.10 indicated a negative linkage between CashTA and ROE of construction-listed corporations at a 5% significance level. The negative association implies that an upsurge in cash holding reduces the performance of construction-listed corporations. According to Yun et al. (2020), construction firms invest heavily in equipment, machinery and overhead costs which tie up significant cash. However, these fixed costs do not directly contribute to revenue generation unless actively utilized in projects that signal underutilization of resources, leading to reduced performance. Similarly, Lau and Chen (2021) explain that construction firms work on long-term projects with delayed cash inflows as a result of payment schedules that are linked to project milestones. Holding cash impairs the ability of construction firms to meet short-term project needs and liquidity requirements which in turn hurts the performance of construction firms.

4.3.2.2.3 Cash Holding and Tobin's Q

Cash holding's association with Tobin's Q is presented in this section. Specifically, the section outlines the results arrived at while determining the linkage between cash holding and Tobin's Q of SSA-listed non-financial corporations from the agricultural, manufacturing and construction industries. The results are presented in Table 4.11.

Table 4.11: Cash Holding and Tobin's Q

	Agriculture			Manufacturing			Construction		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag1	.38***	.09	4.2	.82***	.29	2.83	.51*	.27	1.89
CashTA	.05***	.01	5.00	.10**	.05	2.00	-.07*	.04	-1.75
BI	.05	.05	1.00	.03	.02	1.5	.22**	.09	2.44
GDP	.01	.01	1.00	.02	.06	.33	.01	.75	.01
Age	-.10	.10	-1.00	-.43	.29	-1.48	-.14	.09	-1.56
Size	.08	.05	1.6	-.11	.13	-.85	.09***	.03	3.00
INDMY	-.01**	.05	-.2	.68*	.39	1.74	.13	.08	1.63

***p<.01, **p<.05, *p<.1

Table 4.11 demonstrates the linkage between cash holding and Tobin's Q of agricultural, manufacturing and construction corporations. Table 4.11 implies significant positive coefficients for the lags of Tobin's Q for agricultural, manufacturing and construction companies. This means that the previous year's performance positively influences the current performance of agricultural, manufacturing and construction companies.

In addition, table 4.11 demonstrates positive associations between CashTA and Tobin's Q in agricultural and manufacturing firms. The associations were however significant at 1% and 5% for agricultural and manufacturing corporations respectively. The positive association suggests that an increase in cash holding of agricultural and manufacturing corporations leads to an upsurge in performance in both agricultural and manufacturing firms. Ahmad (2021) proposes that agricultural and manufacturing industries require significant investments in productive assets such as land and machinery hence holding cash reserves enables them to finance these assets internally leading to greater capacity for capital expenditure and increased corporate performance. Similarly, Nkuruziza et al (2016) while studying the predictors of performance of agricultural firms in SSA, noted a positive linkage between cash holding and the performance of agricultural corporations attributing the improved performance to the role played by cash holding in ensuring reduced operational frictions. Barasa et al (2019) also while studying manufacturing listed firms in SSA noted that cash holding acted as a ready asset that the managers could use to maximize profits on time as a result of timely investments into profitable ventures which in turn leads to an upsurge in their performance. Furthermore, table 4.11 indicated a 10% significant negative association between CashTA and Tobin's Q which implies that an upsurge in cash holding of construction companies is detrimental to their performance. Construction firms generate revenue through project-based contracts with revenue recognized upon project completion. Hence, holding excess cash often indicates project completion delays leading to performance deterioration (Alhori, 2020). Contrastingly, Lau and Chen (2021) argue that the

construction industry is full of unforeseen circumstances hence having cash reserves is justifiable as it provides a safety buffer against unexpected occurrences.

4.3.3 Risk Taking and Performance

This segment presents the results concerning risk-taking and performance of SSA-listed non-financial corporations. Specifically, the segment presents results concerning the relationship between risk taking and ROA, risk taking and ROE, and risk taking and Tobin's Q for the entire non-financial corporations and then engages in a sub-sector comparison. Table 4.12 provides the association between risk-taking and the performance of SSA-listed non-financial corporations.

Table 4.12: Risk-Taking and Performance of SSA non-financial corporations

	ROA			ROE			Tobin's Q		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag	.300***	.046	6.52	.260***	.040	6.50	.330***	.050	6.60
ZScore	-.035**	.014	-2.50	-.040**	.016	-2.50	-.025*	.013	-1.92
BI	.016	.010	1.60	.020*	.012	1.67	.012	.008	1.50
GDP	.006	.004	1.50	.008	.005	1.60	.004	.003	1.33
Age	.003	.002	1.50	.005*	.003	1.67	.002	.002	1.00
Size	.015	.010	1.50	.018*	.011	1.64	.012	.009	1.33
INDMY	.014	.009	1.56	.018*	.011	1.64	.011	.008	1.38

***p<.01, **p<.05, *p<.1

Table 4.12 indicates positive coefficients for the lags of ROA, ROE and Tobin's Q, which were significant at 1%, implying that the previous year's performance positively influences the current year's performance for SSA-listed non-financial corporations.

Additionally, Table 4.12 showcases negative coefficients for the ZScore of SSA-listed non-financial. The negative coefficient for the ZScore of SSA-listed non-financial corporations suggests that an increase in risk-taking hurts the performance of SSA-listed non-financial corporations. This is the case because, as suggested by Lee (2023) SSA-listed non-financial corporations take on too many uncalculated risks, which end up in huge losses, which in turn decrease corporate performance. Consistently, drawing from the agency theory, Mumtaz et al (2021) suggested that too much risk-taking by the managers implied the pursuit of personal gains as opposed to those of the entire firm, leading to agency problems. Similarly, Mustapha et al (2022) explain that taking on risky projects that end up failing leads to reputational damage for SSA-listed non-financial corporations, which end up hurting their performance.

Contrastingly, Hussain and Hadi (2019) argue that increased risk-taking leads to stable earnings, which signals growth to the investors, hence building investor confidence in SSA-

listed non-financial corporations. Similarly, Habib et al (2022) explain that increased risk-taking, particularly venturing into new markets, opens new distribution channels for SSA-listed non-financial corporations, leading to increased corporate performance.

4.3.3.1 Robustness Checks

The robustness checks conducted to ascertain the association between risk-taking and the performance of SSA-listed non-financial corporations are presented herein.

Table 4.13: Association between risk-taking and performance

	ROA			ROE			Tobin's Q		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag1	.04**	.02	2.00	.04**	.02	2.00	-.04**	.02	-2.00
FGearing	.05**	.02	2.5	.08**	.04	2.00	-.02**	.01	-2.00
BI	.09**	.04	2.25	.08	0.7	1.14	.24	1.53	.16
GDP	.03	.04	.75	.03***	.01	3.00	.07	.24	.29
Age	-.04	.03	-1.33	-.04	.04	-1.00	-.04	.04	1.00
Size	.03	.07	.43	-.07	.05	-1.4	.08	.07	1.14
INDMY	-.08**	.05	-1.6	.85*	.47	1.81	.25	.25	1.00

***p<.01, **p<.05, *p<.1

As depicted in table 4.13 financial gearing (FGearing) was used as an alternative measure of risk-taking while ascertaining the robustness of GMM outcomes when the Z-Score technique was used. Financial gearing was used because it measures the extent to which non-financial corporations utilize debt financing to undertake investments in an attempt to improve their performance (Hussain, 2019). Table 4.13 demonstrated consistent coefficient signs with those obtained when the Z-Score technique was used implying that the study's outcomes were robust.

4.3.3.2 Sub-Sector Comparisons

4.3.3.2.1 Risk Taking and Return on Assets

Table 4.14 presents the results concerning risk taking and ROA of agricultural, manufacturing and construction firms listed in SSA securities exchanges.

Table 4.14: Risk Taking and ROA

	Agriculture			Manufacturing			Construction		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag1	.16*	.09	1.78	.13***	.04	3.25	.26**	.13	2.00
ZScore	.13**	.02	6.5	.10***	.03	3.33	-.69**	.31	-2.23
BI	.01	.01	1.00	.07***	.02	3.5	.17	1.41	.12
GDP	.04	.04	1.00	.02**	.01	2.00	.16	.16	1.00
Age	-.21	.17	-1.24	-.05**	.02	-2.5	-.01	.02	-.5
Size	.01	.06	.17	-.15	.15	-1.00	.15**	.06	2.5
INDMY	-.10*	.06	-1.67	.90**	.44	2.05	.05	.11	.45

***p<.01, **p<.05, *p<.1

Table 4.14 indicates a positive linkage between Z-Score and ROA of agricultural firms which was significant at 1%. This denotes that an upsurge in risk-taking leads to an upsurge in the performance of Sub-Saharan listed agricultural firms. Agriculture is inherently risky due to factors like pests and weather-related disasters (Muqorobin et al., 2023) hence, as suggested by Jalali et al. (2020), agricultural firms take calculated risks such as investing in new technologies using borrowed funds which help them to achieve higher performance. Similarly, Thai et al (2023) explained that agricultural firms invested in different crops, livestock and geographic areas in an attempt to diversify their portfolios due to the high vulnerability to fluctuations in climatic conditions. Diversification allowed agricultural firms to take on risks in a calculated way and this in turn led to upsurging performances. Contrastingly, Adobor (2020) while investigating entrepreneurial failure in the agricultural sector, proposed an optimal approach to risk taking, arguing that taking on too much risk ended up hurting the performance of agricultural firms due to the huge losses incurred from the risky ventures agricultural firms undertook. Additionally, table 4.14 exhibited a positive linkage between Z-Score and ROA of manufacturing listed corporations at a 1% significance level. The 1% significance level denotes that risk taking strongly impacts the performance of listed manufacturing corporations. The positive association on the other hand, implies that an upsurge in risk-taking upsurses the performance of manufacturing corporations. Lee (2023) and Sajid et al (2023) propose that manufacturing is a sector driven by innovation and technological advancements hence manufacturing companies are willing to take risks by developing new products and services using debt financing. These innovations often lead to cost efficiencies and enhanced market differentiation ultimately boosting their performance. In line with this finding, Muqorobin et al (2023) noted that manufacturing companies that aggressively took on risks achieved higher profits that

allowed them to access favorable financing terms from financial institutions which was further used to enhance their performance.

Table 4.14 however indicated a negative linkage between Z-Score and ROA of Sub-Saharan construction listed corporations which was significant at 5% significance level. The negative linkage denotes that an upsurge in risk-taking is detrimental to the performance of listed construction corporations. According to Suttipun (2023), the construction industry requires substantial upfront investment in equipment, materials and labour hence relying heavily on risk-taking through debt financing to fund these investments increases construction companies' financial leverage and interest expense burden. Hence, in economic downturns, construction firms struggle to generate funds to cover debt service obligations hampering their performance. Contrastingly, Gong and Wang (2021) explain that risk-taking especially through research and development improves the performance of construction companies. According to Gong and Wang (2021) risk-taking through research and development drives innovation leading to technological advancements which in turn leads to an upsurge in performance.

4.3.3.2.2 Risk Taking and Return on Equity

GMM's outcome concerning risk taking and ROE of non-financial corporations from the agricultural, manufacturing and construction industries is as presented in Table 4.15.

Table 4.15: Risk Taking and ROE

	Agriculture			Manufacturing			Construction		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag1	.32***	.11	2.82	.30***	.10	3.00	.26**	.11	2.36
ZScore	.03***	.01	3.00	.02**	.01	2.00	-.10**	.05	-2.00
BI	.05*	.03	1.67	.04	.03	1.33	.33	1.33	.25
GDP	.02	.04	.5	.02**	.01	2.00	.04	.26	.15
Age	-.03	.02	-1.5	-.30	.20	-1.5	-.01	.01	1.00
Size	.01	.08	.13	-.07	.19	-.37	.07	.06	1.17
INDMY	-.09*	.05	-1.8	.65*	.37	1.77	.16	.16	1.00

***p<.01, **p<.05, *p<.1

Table 4.15 indicated a positive association between Z-Score and ROE of agricultural corporations which was significant at 1%. The positive linkage implies that an upsurge in the risk-taking of agricultural corporations upsurses their performance. Agricultural corporations often employ risk management strategies to mitigate weather-related and market fluctuation risks (Vo et al., 2023). As more risk management strategies are put in place through crop diversification, agricultural firms attain increased financial stability leading to enhanced performance (Tran, 2020). Contrastingly, Thai et al (2023) drawing

from Miller and Modigliani irrelevance principle, argue that risk-taking is irrelevant and does not influence the performance of agricultural firms as in the case of factors like changes in climatic conditions.

Besides, table 4.15 indicated that Z-Score had a 5% significant positive relationship with the ROE of manufacturing listed corporations. The positive association suggests that when the risk-taking of manufacturing-listed corporations goes up, the performance for manufacturing-listed corporations also goes up. This is because, as Mahto (2015) proposed, manufacturing corporations often operate in diverse markets and product lines allowing them to spread risks and capture opportunities across different sectors. This diversification reduces manufacturing companies' overall risk profile leading to increased performance. Similarly, Muqorobin et al (2023) argue that manufacturing companies tend to favor research and development which leads to innovations such as the development of new product brands which in turn drive up their performance.

Moreover, table 4.15 however indicated a negative association between Z-Score and ROE of construction firms with a 5% significance level, denoting that an increase in risk-taking reduces the performance of construction companies. Almustafa et al. (2023) propose that construction projects entail various risks including cost overruns and safety concerns which lead to project cancellations and financial losses which negatively impact the performance of construction firms. Hussain and Hadi (2019) also noted an inverse association between risk-taking and the performance of construction companies explaining that risk-taking has an insignificant impact on performance when compared to other factors like corporate governance.

4.3.3.2.3 Risk Taking and Tobin's Q

The findings regarding risk-taking and Tobin's Q is presented herein. Table 4.16 provides a tabular presentation of the results concerning risk taking and Tobin's Q of SSA-listed agricultural, manufacturing and construction companies.

Table 4.16: Risk Taking and Tobin's Q

	Agriculture			Manufacturing			Construction		
	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value	Coeff	Std. Err	t-value
Lag1	.38***	.09	4.2	.82***	.29	2.83	.51*	.27	1.89
ZScore	.05	.03	1.67*	.02**	.01	2.00	-.38**	.16	-2.38
BI	.05	.05	1.00	.03	.02	1.5	.22**	.09	2.44
GDP	.01	.01	1.00	.02	.06	.33	.01	.75	.01
Age	-.10	.10	-1.00	-.43	.29	-1.48	-.14	.09	-1.56
Size	.08	.05	1.6	-.11	.13	-.85	.09***	.03	3.00
INDMY	-.01**	.05	-.2	.68*	.39	1.74	.13	.08	1.63

***p<.01, **p<.05, *p<.1

Table 4.16 exhibited positive associations between Z-Score and Tobin's Q of agricultural and manufacturing companies which were significant at 10% and 5%, respectively. The positive associations imply that increased risk-taking in agricultural and manufacturing corporations increases their performance. According to Javed (2021), risk-taking behaviour facilitates market expansion for agricultural and manufacturing companies often involving entering new geographical markets and boosting their performance. Similarly, while investigating the key predictors of performance of agricultural projects in SSA, Nkuruziza et al (2016) explained that risk-taking through knowledge management and stakeholder engagement were valuable assets that improved agricultural projects' performance as they were used to source for ideas and financing.

However, concerning construction firms, table 4.16 demonstrated a negative linkage between Z-Score and Tobin's Q of Sub-Saharan construction listed firms with a 5% significance level. The negative linkage implies that an upsurge in corporate risk-taking hurts the performance of construction corporations. Owing to the cyclical nature of the construction industry, Suttipun (2023) propose that construction companies often take uncalculated risks that lead to huge losses that hurt their performance. Consistently, Du et al (2025) explain that construction firms especially those that are managed by young CEOs are prone to corporate misconduct which leads to uncalculated risk-taking behaviors which results in huge losses that end up hurting the performance of construction firms.

4.4 Hypothesis Testing

This section presents the findings obtained while testing the study's hypotheses. The study had three hypotheses, H₀₁, H₀₂ and H₀₃, which it sought to test. The Chi-Square statistics were used to test the study's hypotheses because they help compare the observed results with the expected results. The Chi-Square helped the study to generate p-values that were

vital for determining whether the observed results from the study are due to chance or if there were real relationships between the study variables. The study's hypothesis testing results are presented in Table 4.17.

Table 4.17: Summary of Chi-Square analysis results

Hypothesis	Independent Variable	Chi-Square Statistics	p-value	Decision
H ₀₁ : Ownership structure does not have a significant effect on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchanges	Ownership Structure	115.31	0.001	Reject
H ₀₂ : Cash holding does not have a significant effect on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchanges	Cash Holding	79.99	0.001	Reject
H ₀₃ : Risk Taking does not have a significant effect on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchanges	Risk Taking	3.64	0.056	Fail to reject

As depicted in Table 4.17, a Chi-Square of 115.31 is significant at $P < 0.05$ is observed, hence the hypothesis, H₀₁: Ownership structure does not have a significant effect on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchanges, was rejected. This is because the study findings imply that corporate ownership is significantly and positively linked with the performance of SSA-listed non-financial firms. Additionally, Table 4.17 indicates a Chi-Square statistic of 79.99, significant at < 0.001 ; hence, the second hypothesis, H₀₂: Cash holding does not have a significant effect on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchanges, was also rejected. This is the case because the study's results implied a significant and positive association between cash holding and the performance of SSA-listed non-financial firms. Concerning the third hypothesis, H₀₃: Risk taking does not have a significant effect on the financial performance of non-financial firms listed in Sub-Saharan Securities Exchanges, an insignificant Chi-Square statistic of 3.64 ($P\text{-value } 0.056 > 0.05$) was observed leading to the failure to reject the hypothesis.

4.5 Summary of Results

4.5.1 Summary of Overall Results

The findings herein showcase the results obtained while trying to achieve the study's objectives. Concerning the first objective, the outcome of the analysis depicts that ownership structure has a significant positive association with the performance of SSA-listed non-financial firms. This means that, an increase in ownership structure increases the performance of SSA-listed non-financial corporations. This finding contradicts the expected results, as the study had anticipated that the ownership structure would have a non-significant effect on the performance of SSA-listed non-financial corporations. The first hypothesis (H_{01}) that ownership structure does not have a significant effect on the performance of SSA-listed non-financial corporations was therefore rejected.

Concerning the second objective, the results indicated that cash holding had a significant positive association with the performance of SSA-listed non-financial corporations, implying that an increase in cash holding increases the performance of SSA-listed non-financial corporations. The expected significance levels concerning the second objective were that cash holding does not have a significant effect on the performance of SSA-listed non-financial corporations which is contradicted by the study outcomes since the study depicted that cash holding has a significant effect on corporate performance heading towards the positive direction. As a result, the second hypothesis (H_{02}) that cash holding does not have a significant effect on the performance of SSA-listed non-financial corporations was rejected.

Regarding the third objective, the study outcomes indicated an insignificant negative association between risk-taking and the performance of SSA-listed non-financial corporations. This means that, though an increase in risk-taking hurts the performance of SSA-listed non-financial corporations the effect is insignificant. This finding aligns with the study's expected outcome, as the study had predicted zero significance in the association between risk-taking and the performance of SSA-listed non-financial corporations. As a result, the study failed to reject the third hypothesis (H_{03}) that risk-taking does not have a significant effect on the performance of SSA-listed non-financial corporations because the study confirmed that risk-taking has an insignificant effect on corporate performance.

4.5.2 Summary of Sub-Sector Results

The findings associated with sub-sector comparisons provided insightful results for specific sectors of SSA-listed non-financial corporations. The study's outcome implied that ownership structure, cash holding and risk-taking had a statistically significant positive

association with ROA, ROE and Tobin's Q in agricultural and manufacturing listed firms. This means that an increase in ownership structure, cash holding and risk-taking increases the performance of listed non-financial corporations from the agricultural and manufacturing industries. However, ownership structure, cash holding and risk-taking had a statistically significant negative association with ROA, ROE and Tobin's Q in construction-listed corporations. This means that an increase in ownership structure, cash holding and risk-taking hurts the performance of SSA-listed non-financial corporations from the construction sector.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Chapter Introduction

This chapter summarizes the study's findings and provides a concluding remark to the study. In addition, the chapter sets forth the study's practical implications and provides appropriate recommendations based on the study's findings. Future research directions are also provided in this chapter

5.2 Summary of findings

The general objective of the study was to assess the effect that ownership structure, cash holding and risk-taking have on the performance of SSA-listed non-financial corporations. Specifically, the study sought to assess the effect that ownership structure, cash holding, and risk-taking have on ROA, ROE and Tobin's Q of non-financial corporations listed in SSA Securities Exchanges.

Concerning the first objective, the findings revealed that ownership structure had a positive effect on the performance of SSA-listed non-financial corporations. This implies that an increase in the proportion of one type of corporate ownership increases the performance of SSA-listed non-financial corporations. On the second objective, the findings showed that cash holding has a positive effect on the performance of SSA-listed non-financial corporations. This implies that an increase in cash holding increases the performance of SSA-listed non-financial corporations. Concerning the third objective, the findings demonstrated that risk-taking has an insignificant effect on the performance of SSA-listed non-financial corporations, implying that an upsurge in risk-taking has no effect on the performance of SSA-listed non-financial corporations.

Regarding the individual sectors of SSA-listed non-financial corporations, the outcome of the first objective revealed a positive association between ownership structure and the performance of SSA-listed non-financial corporations from the agricultural and manufacturing industries but a negative association with the performance of SSA-listed non-financial corporations from the construction industry. On the second objective, the findings revealed that cash holding is positively associated with the performance of SSA-listed non-financial corporations from the agricultural and manufacturing industries but negatively associated with the performance of SSA-listed non-financial corporations from the construction industry. Concerning the third objective, the findings also revealed that risk-taking had a positive association with the performance of SSA-listed non-financial

corporations from the agricultural and manufacturing industries but a negative association with the performance of SSA-listed non-financial corporations from the construction industry.

Overall, the positive effect that ownership structure and cash holding have on the corporate performance of non-financial firms implies that an upsurge in the proportion of one form of ownership structure and cash holding upsurses the performance of non-financial corporations listed in SSA Securities Exchanges. On the other hand, though insignificant, the negative effect that risk-taking has on the performance of non-financial listed firms denotes that an increase in risk-taking hurts the performance of non-financial listed corporations in SSA Securities Exchanges.

5.3 Conclusion

The study probed the intricate effect that ownership structure, cash holding and risk-taking have on organizational performance in Sub-Saharan countries utilizing non-financial corporations listed in Sub-Saharan Securities Exchanges. Ownership structure plays a critical role in ensuring that strategic decisions are carefully made. While management ownership aligns director interests with those of the shareholders, state ownership provides access to funds and state resources. Additionally, institutional and foreign ownership increases corporate oversight, leading to increased operating efficiencies and corporate accountability. Holding cash provides a financial buffer against unexpected challenges, which in turn enables corporations to weather economic downturns and capitalize on investment opportunities without using external financing. In addition, having cash reserves enhances corporations' liquidity levels, thereby enabling corporations to meet their short-term financial obligations with ease. Having a strong cash balance also improves investor confidence in listed corporations as it signals improved financial stability, leading to a positive impact on listed companies' stock prices. Meanwhile, accepting calculated risk-taking allows corporations to diversify their revenue streams and maintain a competitive edge through growth opportunities and adaptiveness to changing market dynamics. Consistently, accepting risks through research and development leads to increased innovations and technological advances crucial for improving corporate performance. However, taking on uncalculated risks lead to huge losses that end up hurting the performance of non-financial corporations.

The findings revealed that ownership structure had a positive effect on the performance of SSA-listed non-financial corporations, suggesting that an increase in ownership structure increases the performance of SSA-listed non-financial corporations. Additionally, the findings also revealed that cash holding positively affects the performance of SSA-listed

non-financial corporations, implying that an upsurge in cash holding upsurges the performance of listed non-financial corporations. However, the findings revealed that, though insignificant, risk-taking had a negative effect on the performance of SSA-listed non-financial corporations, denoting that an increase in risk-taking hurt the performance of listed non-financial corporations.

These findings underscore a nuanced understanding of these dynamics within distinct industry contexts. In the non-financial sector, where there are no strict regulations, increasing corporate ownership leads to increased accountability, transparency and monitoring, leading to increased corporate performance. Consistently, increasing the proportion of one type of corporate ownership leads to increased corporate resources and assets that are deployed to maximize corporate performance. Moreover, the non-financial sector characterized by intensive capital requirements, holding cash reserves helps non-financial firms to pounce on lucrative opportunities when they present themselves, leading to increased performance. Similarly, due to the cyclic nature of the operations undertaken in the non-financial sector, holding cash reserves allows non-financial firms to meet their short-term obligations when they fall due, enhancing their liquidity position which in turn increases their performance.

5.4 Practical Implications

This study recommends that non-financial companies reconfigure their ownership structure by encouraging participation from state, institutional and foreign investors. Additionally, non-financial corporations should consider allocating a portion of their shares to managers through incentive schemes to promote manager stock ownership plans. With regards to cash holding, the study recommends that non-financial corporations develop cash reserve policies aligned with performance goals, like setting target cash levels based on historical performance. On the other hand, the study recommends that non-financial corporations strengthen their risk mitigation processes, such as thoroughly vetting investment and expansion decisions, as this will help reduce losses resulting from uncalculated risks.

5.5 Future Research Directions

Future studies can focus on the impact of macroeconomic factors like exchange rates and inflation while assessing the linkage between ownership structure, cash holding, risk-taking and corporate performance of SSA-listed non-financial corporations. Also, future studies can incorporate behavioral finance theories to explain why SSA-listed non-financial firms hold cash and take risks the way they do. Moreover, the study recommends that future studies seek to include an increased sample of listed non-financial corporations by

increasing the number of industries to include other sectors like technology and retail, while undertaking sub-sector comparisons to further understand the linkage between ownership structure, cash holding, risk-taking and the performance of non-financial corporations.

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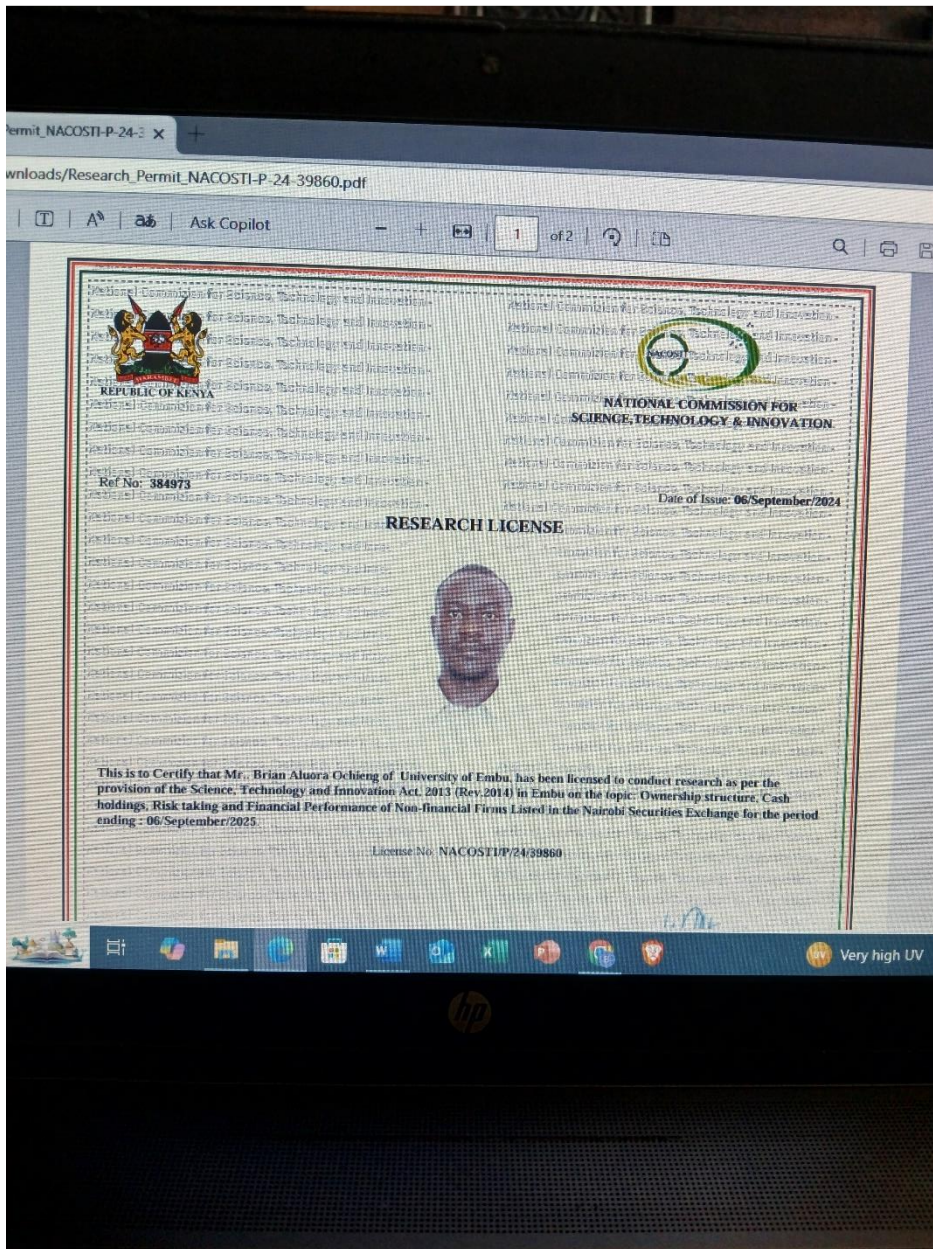
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APPENDICES

Appendix I: Nacosti Research Permit



Appendix II: Data Collection Sheet

Company Name.....

Year Variable	2016	2017	2018	2019	2020	2021
Net income						
Total assets						
Net assets						
Total equity						
Total shares						
Market price per share						
Government held stock						
Manager held stock						
Institutional held stock						
Foreigner held stock						
Cash & cash equivalents						
Number of independent directors						
Total debt						
Total liabilities						
Non-current assets						
Year of incorporation						
GDP growth rate						

Appendix III: Operationalization and Measurement of study variables

Variable(s)	Type of the Variable(s)	Indicators	Measurement
Performance	Dependent	ROA	Net profits divided by total assets
		ROE	Net profits divided by total shareholder's capital
		Tobin's Q	Ratio of market capitalization to book value of assets
Ownership Structure	Explanatory	MO	Proportion of corporation's stock held by the directors
		IO	Proportion of corporation's stock held by institutions
		SO	Proportion of corporation's stock held by the government
		FO	Proportion of corporation's stock held by foreigners
Cash Holding	Explanatory	Cash divided by total corporation's assets (CashTA)	Ratio of cash to corporation's total assets
Risk Taking	Explanatory	Z-Score	ROA plus equity to asset ratio divided by standard deviation of ROA
Board Independence (BI)	Control	Total number of independent directors	Total number of independent directors
GDP	Control	GDP growth rate	GDP growth rate
Age	Control	Years since incorporation	Years since incorporation
Size	Control	Logarithm of total assets	Logarithm of total assets
Industry dummy (INDMY)	Control	Dummy	1, if the corporation is from the industry under consideration, 0 otherwise

APPENDIX IV: Research Gaps

Author	Focus of the Study	Methodology used	Findings	Knowledge Gap	Focus of Current Study
Assenga, M.P, Aly, D., and Hussainey M. (2019)	Dynamic relation between ownership concentration and performance.	Generalized method of moments	Findings insinuated that manager ownership has a negative relation with organizational performance while state control has a positive relation with organizational performance	Mainly focused on managerial and state ownership as the only two forms of ownership structure not including foreign and institutional ownership	The current study will consider foreign and institutional ownership in addition to state and managerial ownership while investigating the relation existing between organizational ownership and organizational performance of listed non-financial organizations
Pasquale Benedetta and Anh Nguyet (2017)	Concentrated ownership, risk-taking and performance.	Regression analysis	The outcome indicated no relation between organizational ownership and organizational performance.	Focused on the overlapping effect of concentrated ownership on both corporate risk taking and financial performance, failing	This study will focus on individual relation and influence of ownership concentration and risk-taking on the performance of NSE

			However the outcome exhibited a non-linear relation between ownership concentration and corporate risk taking	to consider the individual impact of ownership concentration and risk taking on firm performance	non-financial listed corporations
Faisal Alnori (2019)	Cash holding: Do they enhance a corporation's performance? Evidence Germany	GMM model	The findings indicate a non-linear, inverse U shaped relation between cash holding and performance.	This study is limited to German economy which is well developed hence the results may be inapplicable in the Kenyan economy	The major focus of the research study is on the relation between cash holding and corporate performance of NSE listed non-financial corporations
Shahab Ud Din, Muhammad Khand and Majid Jamal (2020)	Ownership concentration and organizational performance in developing markets	Generalized method of moments(GMM)	Findings indicate a direct relation between institutional ownership and organizational performance. The results also indicate a positive relation between manager and government ownership and performance	The research was based only on the agency theory making it to be more theoretical. The research also failed to examine the relation between performance and foreign ownership as a form of ownership structure.	The current study relies on empirical evidence rather than theoretical assumptions. The current study also aims at including foreign ownership in addition to managerial, institutional and state ownership while

					examining the relation between corporate ownership and performance
Lee Chong, Hway-Boon Ong and Siow-Hooi Tan (2018)	Risk-taking and corporate performance in Malaysia: The influence of director composition, state connectedness and sustainability practices	Regression analysis	Results indicated that large board size contributed to greater risks, but the risks can be evaded by having independent directors. The findings also indicate that politically connected firms generated lower performance due to lower risk taking	The research focused on the state owned corporations excluding institutional and foreign ownership. The study also focused on board composition and sustainability practices as firm characteristic excluding other aspects of the firm for instance firm size, asset tangibility and listed age	Examining the relation between risk taking and corporate performance while including institutional and foreign ownership in addition to state and managerial ownership is the general focus of this study. The study also focuses on controlling for firm size, asset tangibility and listed age
Boyd, B. K., and A.M. Solarino (2016)	Influence of institutional ownership on corporate performance: An	Regression	The outcome revealed a negative relation between organizational ownership and	The study focused on regression analysis which might not survive panel data estimation which	The current study focuses on employing the GMM model which accounts for the presence of

	exploration of U.S.-listed shipping corporations		corporate performance which is linked to non-judicious institutional investors	considers the endogeneity	endogeneity.
Galego, A., Mira, N., and Silva, J.V (2019)	Corporate ownership concentration's effect on financial performance	Multiple linear regression and fixed regression effect	The study revealed a significant and positive relation and performance while manager ownership revealed a negative relationship with financial performance. Foreign ownership showed no relation with performance	The study didn't consider other forms of ownership concentration like state ownership while examining the relation between ownership concentration and corporate performance	This study focuses on controlling organizational size and listed age while including state ownership as a form of ownership concentration while investigating the relation between organizational ownership and performance
Vishny Kumar (2020)	Cash holding and performance of publicly traded US firms	Panel data analysis	The findings indicate that higher cash holdings are linked to better corporate performance. The study also revealed that cash holding can	The research focused on limited number of institutions that were included in the sample. Additionally, the research did not consider other factors	This study will focus on increasing the number of firms in the target population from 15 to 43. The current study also focuses on controlling

			<p>be a substitute for investments in fixed assets, which can further increase the performance of the organization.</p>	<p>such as debt levels, which may influence corporate performance. Furthermore, the research did not explore the influence of cash holdings on different industries, which could yield interesting results</p>	<p>for firm characteristic for instance listed age and asset tangibility while examining the relation between cash holding and financial performance. Furthermore, the study will compare the study results among the various industries of non-financial firms so as to be comprehensive in examining the relation existing between cash holding and organizational performance</p>
<p>Yuan Chen and Xiou Zhang (2019)</p>	<p>Firm cash holding and organizational performance</p>	<p>Regression analysis</p>	<p>The study findings show that cash holding has an inverse impact on organizational performance, with lower ROA and</p>	<p>The study has contextual gaps in terms of the limited geographic scope, as it was limited only to Chinese firms. Additionally the</p>	<p>The main aim is to assess the relation between cash holding and corporate performance in the Kenyan context, controlling for size,</p>

			ROE. The study also found that cash holdings are more detrimental to the performance of larger corporations and the impact is more pronounced in industries with higher levels of industry competition	study did not consider other aspects of the firm for instance, firm age and asset tangibility in addition to organizational size.	listed age and asset tangibility which may impact on organizational performance.
Michael R Walls (2015)	Risk taking and firm financial performance	Two steps least squares regression	Findings revealed a direct relation between risk taking and corporate performance	Focused on the manufacturing firms failing to consider other sectors of non-financial firms hence the findings may be inapplicable to other sectors of non-financial listed firms	The focus is on comparing the study findings among the various sectors of non-financial listed firms so as to be comprehensive in examining the relation between risk taking and corporate performance

APPENDIX V: SSA Countries Represented in the Study

So. No.	Unit of measurement	No. of Agricultural Firms	No. of Manufacturing Firms	No. of Construction Firms	Total
1	BODIVA	2	2	2	6
2	BRVM	3	0	1	4
3	BSE	3	2	4	9
4	BRVM	1	1	1	3
5	Burundi	-	-	-	-
6	BVC	0	1	0	1
7	CSE	1	3	0	4
8	Central African Republic	-	-	-	-
9	Chad	-	-	-	-
10	Comoros	-	-	-	-
11	BRVM	1	2	2	5
12	Democratic Republic of the Congo	-	-	-	-
13	Djibouti	-	-	-	-
14	Eritrea	-	-	-	-
15	ESE	0	7	0	7
16	Ethiopia	-	-	-	-
17	BVMAC	0	0	0	0
18	BVMAC	1	2	0	3
19	GSE	0	1	1	2
20	GSE	5	8	3	16
21	BRVM	0	1	0	1
22	BRVM	2	1	1	4
23	NSE	6	8	5	19
24	MSM	0	0	0	0
25	Liberia	-	-	-	-
26	Madagascar	-	-	-	-
27	MSE	1	1	0	2
28	BRVM	0	1	0	1
29	Mauritania	-	-	-	-
30	SEM	2	4	2	8
31	BVM	0	5	0	5
32	NSX	4	5	2	11
33	BRVM	2	3	2	7
34	NGX	5	12	6	23
35	RSE	0	4	0	4
36	Republic of the Congo	-	-	-	-
37	Sao Tome and Principe	-	-	-	-
38	BRVM	4	5	2	11
39	MERJ	3	6	4	13
40	BRVM	0	0	0	0
41	JSE	33	45	20	98

42	KSE	3	3	2	8
43	South Sudan	-	-	-	-
44	SSE	0	3	1	4
45	DSE	3	7	3	13
46	BRVM	5	9	5	19
47	LuSE	3	10	0	13
48	ZSE	1	8	1	10
					334