THE IMPACT OF CORPORATE GOVERNANCE ON FIRM PERFORMANCE: A STUDY OF HIGH-GROWTH COMPANIES LISTED ON THE JSE ALTERNATIVE STOCK EXCHANGE (ALTX)

by

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DECLARATION

I, Lilly Rantjapedi, declare that this research article is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the Graduate School of Business Administration, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

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"For I know the plans I have for you," declares the LORD, "plans to prosper you and not to harm you, plans to give you hope and a future" (**Jeremiah, 29:11).**

To God Be the Glory.

ABSTRACT

The study investigates the impact of corporate governance on the performance of fast-growing Small and Medium Enterprises listed on AltX of the Johannesburg Stock Exchange. Governance practices among growing Small and Medium Enterprises have not received extensive attention in previous research. The most important areas of governance investigated in this study were board size, independence of the board and its audit committee, and independence of non-executive directors. Board structure and board and audit committee independence and their impact on performance are measured by Return on Assets, Price-to-Earnings Ratio, and Tobin's Q.

Governance variables consisting of board size, board independence and audit committee independence are analysed to determine their effect on corporate performance as measured by Return on Assets, Price-to-Earnings ratio, and Tobin's Q. This is based on agency and stakeholder theory. A total of 21 companies listed on AltX are included in the analysis, which covers the period from 2018 to 2023. The study employs panel regression methodology to analyse the relationships between governance and performance. The results show that the effect of governance on performance varies for the different performance measures used in the study. In several cases, governance variables had little or no impact. In others, particularly board and audit committee independence, the impact was negative, especially on market-based measures like Tobin's Q.

These results suggest that smaller, high-growth businesses may not always be suited for conventional governance structures, which are sometimes meant for bigger enterprises. The Small and Medium Enterprises could gain more from flexible governance systems that meet their specific needs and stage of development than from rigid frameworks. The study offers practical insight for company boards, investors, and policymakers. It highlights the need for a more flexible, context-driven approach to governance, one that supports growth and sustainability, rather than simply focusing on compliance.

Keywords: audit committee independence, board independence, board size, firm performance, JSE AltX

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LIST OF ACRONYMS

AltX	Alternative Stock Exchange
AUC	Audit Committee
AUD	Augmented Dickey-Fuller
CEO	Chief Executive Officer
FDI	Foreign Direct Investment
FE	Fixed Effects
IARs	Integrated Annual Reports
INED	Independent Non-Executive Director
IoDSA	Institute of Directors South Africa
IRESS	Integrated Real-time Equity System
JSE	Johannesburg Stock Exchange
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
PE	Price-to-Earnings ratio
ROA	Return on Assets
ROE	Return on Equity
SMEs	Small and Medium Enterprises
Std. Dev.	Standard Deviation
UK	United Kingdom
VIF	Variance Inflation Factor

CHAPTER 1: INTRODUCTION

1.1 Context and significance of the study

South Africa's corporate governance framework has gained international recognition for its relatively advanced practices in effective integration in ESG—economic, environmental, social, and governance reporting. As a result, ethical leadership is becoming more crucial due to the growing complexity of managing companies. Investors and other stakeholders are becoming more interested in corporate governance as many countries expand and seek economic growth. As the conduct of business changes, economies grow, and participants in the various marketplaces evolve due to globalisation, increased measures are needed to safeguard stakeholders' interests.

Academics and business leaders have emphasised the importance of studying corporate governance policies, particularly in developing economies, due to an increase in corporate scandals and failures (Hendrickson, 2013; Heng et al., 2012; Petra, 2006). Stakeholders rely on the board of directors to protect their long-term interests, but often fail to discover management's performance until a major scandal occurs (Heng et al., 2012; Kirkpatrik, 2009; Petra, 2006). Examples of corporate failures include Enron, WorldCom, Lehman Brothers, and Parmalat, which resulted from a lack of effective corporate governance measures. In Africa, scandals such as the Steinhoff scandal and the suspension of Chief Executive Officers (CEOs) at Tongaat Hulett and Choppies Enterprises highlight the importance of trust in corporate governance and financial transparency (Dzingai & Fakoya, 2017; Ehikioya, 2009; Mustapha et al., 2020). Trust in these areas could have mitigated the impact of these scandals, which were caused by factors such as high debt levels, unethical practices, and distorted incentives (Organisation for Economic Co-operation and Development [OECD], 2009). Overall, the study of corporate governance is crucial in preventing corporate scandals and failures, particularly in developing economies.

Due to recent developments, corporate governance has become a major concern for governments, policymakers, regulators, and professional bodies. To improve corporate governance, legislators and governments worldwide have increased regulations and disclosures (OECD, 2010). Emerging economies must promote corporate governance to boost investor trust and foreign direct investment (FDI). Implementing sound corporate governance has several benefits. One of them is reducing agency costs by providing better shareholder protection. This, in turn, increases investors' willingness to accept lower returns on their

investments. In the end, the company benefits from increased profits due to reduced capital costs.

An improvement in a company's corporate governance profile has a direct correlation to investor interest in that company. According to West (2006; 2009), companies with strong corporate governance have lower equity costs, allowing them to access cheaper financing. This is because strong corporate governance reduces the likelihood of reckless investment choices and encourages efforts to increase company value and productivity. Listed on the Johannesburg Stock Exchange (JSE), Alternative Stock Exchange (AltX) are firms that fall into the category of small to medium-sized enterprises (SMEs) with strong growth potential. AltX, created as a division of the JSE in 2003, allows these rapidly expanding businesses to access financing from a larger number of potential investors. Listed companies on the AltX are subject to the JSE's streamlined listing criteria, just like those on the Main Board. Companies are required to adhere to the principles outlined in the King IV report and provide an explanation for their inability to do so.

Studies in South Africa have mainly concentrated on the performance of large companies listed on the JSE (Main Board) in relation to corporate governance variables. This means that the findings of these studies may not apply to SMEs (potential high-growth companies) listed on the AltX. SMEs are crucial to the economy, driving innovation, employment, and economic growth.

1.2 Research problem

The global crisis and other corporate scandals led to investors and other stakeholders investigating the causes that led to these catastrophes to gain a more comprehensive knowledge of the elements involved. It has been established that most of the corporate scandals that have been brought to public light have been connected to corporate governance malpractice, namely the role (or lack thereof) of the board of directors being the focal point of focus. These corporate scandals have heightened the board's urgency to implement stronger controls and systems to prevent future disasters.

Most research on the effects of corporate governance on firm performance is limited to developed and emerging economies, the focus being on large corporations listed on stock exchanges (Dzingai & Fakoya, 2017; Muniandy & Hillier, 2015; Ntim & Osei, 2011; Ntim, 2013; Pamburai et al., 2015), which are mainly to blame for several of these corporate scandals. For firms that are still in the process of expanding, the increased pressure might potentially

result in their removal from the AltX due to the financial strain it imposes. The problem that this study seeks to solve is how corporate governance affects the performance of SMEs with the potential for strong growth in emerging economies like South Africa. According to the King Report, SMEs "are the drivers of a rising equitable economic growth, and of social development" (Institute of Directors South Africa [IoDSA], 2016, p. 103).

1.3 Research objectives

1.3.1 Primary objective

Based on the identified problems, the primary objective that this study intends to achieve is:

- To evaluate the impact of corporate governance structure on company performance.

1.3.2 Secondary objective

The following secondary objective will be assessed to support the primary objective:

- To analyse and compare the SMEs listed on the JSE AltX's compliance with corporate governance requirements.

1.4 Contribution of the study

Due to recent developments, corporate governance has become a major concern for governments, policymakers, regulators, and professional bodies. To improve corporate governance, legislators and governments worldwide have increased regulations and disclosures (OECD, 2010). Emerging economies must promote corporate governance to boost investor trust and FDI. Implementing sound corporate governance has several benefits. One of them is reducing agency costs by providing better shareholder protection. This, in turn, increases investors' willingness to accept lower returns on their investments. Ultimately, the company benefits from increased profits due to reduced capital costs.

1.5 Structure of the study

The study is structured as follows:

Table 1: Study structure

Chapter	Summary
Chapter 1	This chapter introduces the study's focus on the link between corporate governance and performance. It includes the research problem, objectives, and significance of examining corporate governance and firm performance among companies listed on the JSE AltX.
Chapter 2	Chapter 2 presents a comprehensive analysis of existing literature on corporate governance principles and their impact on firm performance, with a specific focus on small and medium-sized enterprises as well as emerging markets. The chapter reviews both theoretical frameworks that explain corporate governance and firm performance.
Chapter 3	Chapter 3 provides an analysis of the research design, along with data collection methods, sample selection criteria and analytical methods for examining the corporate governance-firm performance relationship for JSE AltX companies. The selected methodology is justified, and potential reliability and validity factors are examined.
Chapter 4	This chapter presents the empirical findings from the data analysis. The research presents descriptive statistics together with inferential statistics and any applied econometric models in this chapter. The results are analysed within the theoretical framework and hypothesis structure of the study. The findings show their implications for JSE AltX corporate governance practices and their relationship to the performance of companies operating on the exchange.
Chapter 5	Chapter 5 concludes the study. It provides a comprehensive summary of the research with essential results and their applications for the various listed SMEs. The chapter provides recommendations that benefit JSE AltX companies and their regulators, as well as policymakers. The conclusion identifies possible research paths that stem from this study's findings.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

In this chapter, extant literature on corporate governance and firm performance is reviewed from a global and local perspective. Corporate governance is discussed as the key topic in which concepts and theories related to this topic are highlighted, where good structures that ensure effective governance are key to improving organisational performance. Different research models that depict the association between firm performance and governance practices. Additionally, this research presents a conceptual framework underpinning this research as a structured approach to understanding how governance attributes influence performance measures in various contexts.

2.2 Development of corporate governance in South Africa

Corporate governance is the term used to describe "the exercise of ethical and effective leadership by the governing body towards the achievement of the following governance outcomes: ethical culture, good performance, effective control, and legitimacy" (IoDSA, 2016, p. 43). In 1994, South Africa enacted the King Code for corporate governance to comply with international standards and satisfy investors, both local and foreign. Published in the United Kingdom (UK) two years earlier, this Code's content was greatly influenced by the Cadbury Code. One example was the voluntary-serving, one-tier executive and non-executive director boards common in Anglo-American businesses. Effective corporate governance policies are developed in large part by non-executive directors (IoDSA, 1994; Ntim, 2009). Published in 2002, the King II Code of Corporate Governance Report aims to protect shareholder assets and promote accountability and openness. The King II Report considered how business choices affected different stakeholders and favoured a stakeholder approach above different to the King I Report. Companies have had to report on sustainability in addition to their financials ever since the King II Codes first introduced "triple bottom-line" reporting. IoDSA (2002) identified seven qualities as promoting "governance": fairness, social duty, accountability, responsibility, transparency, independence, and discipline.

Adopted in 2009 after the release of the King II Report was the King III Code of Governance Principles (IoDSA, 2009). It emphasised the significance of creating an annual integrated report that covers people, the environment, and business. The King III Report established a process by which organisations are expected to "apply or explain" and it made its

recommendations available to anyone. Several institutes voiced dissatisfaction with King III, citing challenges in enforcing and interpreting the statute.

Building on the concepts of King III, the King IV Report places more emphasis on the outcomes and application of corporate governance principles (IoDSA, 2016). The King IV report also includes an explanation of and use of the phrase "governing body" in maintaining the King IV principles. Another addition to the King IV report is the meaning and application of the term "governing body" in upholding the King IV principles. Seventeen principles were chosen from the 75 that King III had originally. The report also covers ideas such as:

- The integrated approach enables companies to see how various aspects of their business (such as finances, people, and the world) impact one another.
- The stakeholder inclusivity approach, which emphasises the need to involve many people (such as employees, clients, suppliers, and the community) in the stakeholder inclusion process so that all their various ideas and concerns are considered when the company makes decisions.

The primary focus of the current study is the King IV Report Principles 7 and 8. A governing body must have the right tools to carry out its duties equitably and efficiently, and in line with these principles. Serving on the board of directors requires a broad and independent group of people with different experiences and perspectives. Directors should possess a variety of talents and experiences to assist the board in making wise decisions and provide a solid strategic assessment. The report highlights the need to establish a separate governing body that is competent to decide on issues of governance fairly and impartially.

2.3 Theoretical framework

2.3.1 Agency theory

In organisational studies, this theory is used as a concept that looks at the interaction between agents (like managers) and principals (such as shareholders) within a company. This split led to the agency relationship, in which control and ownership are shared between the people who run the business (principals) and the people who run the business's daily activities (agents) (Fama & Jensen, 1983). The agency problem, or Principal-Agent challenge, is a popular way to talk about the agency relationship in theory (Jensen & Meckling, 1976). There is an agency problem when managers put their own needs ahead of those of the company and its owners.

The financial literature suggests several ways to deal with these problems. Corporate governance and its principles are suggested to solve agency problems (Rebeiz, 2015).

Understanding the link and significance of corporate governance and business performance may give significant information for a wide range of stakeholders, including entities, investors, regulators, analysts, governments, and the King Committee in South Africa, among others. This enables the incorporation of corporate governance measures into company plans and investment choices. Several elements encourage the use of corporate governance structures in strategic decision-making. These include lowering agency costs, which leads to better protection for shareholders and investors, as well as encouraging more openness and interactions between enterprises and shareholders.

2.3.2 Stakeholder theory

Researchers emphasise that stakeholder theory is important because it shows that companies have duties to different groups (Donaldson & Preston, 1995; Freeman, 2010). This makes it a key part of corporate control and business success. The King IV Report on South African Corporate Governance also talks about how important stakeholder theory is for involving stakeholders in corporate governance and meeting the needs of various groups (Donaldson & Preston, 1995; Freeman, 2010). This theory considers that businesses are connected to society as a whole and have duties to the community, shareholders, employees, buyers, and suppliers (IoDSA, 2016).

The King IV Report says that including stakeholders is an important part of good government. Governing groups need to know how the purpose, dangers, strategy, and success of a company fit with the needs of stakeholders (IoDSA, 2016). JSE-listed companies can look at corporate governance and business success by bringing shareholder theory to governance practices. Long-term performance and wealth creation can be improved by making sure that government frameworks and decision-making processes are in line with what stakeholders want.

2.4 Conceptual framework

The conceptual framework in Figure 1 below displays the relationships between the theoretical frameworks included in this study. The framework evaluates how corporate governance variables affect firm performance in this study.

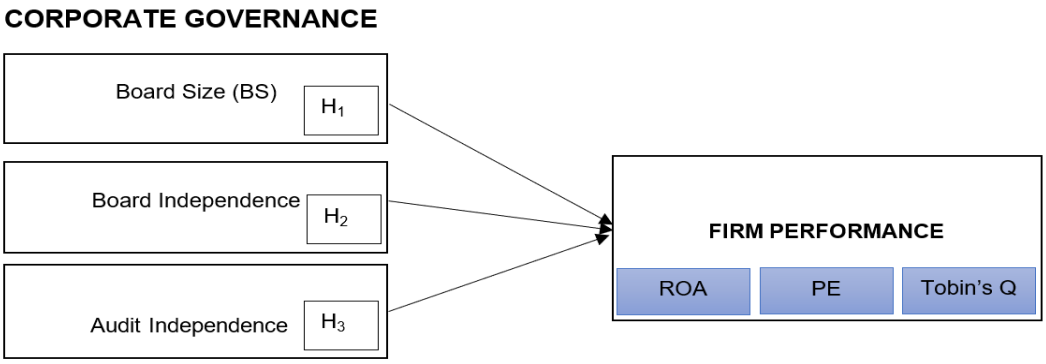

Figure 1: Conceptual framework

2.5 Hypothesis development

2.5.1 Corporate governance and firm performance

Empirical studies have shown the potential benefits that a firm might experience when it adopts ethical management and strong governance practices. Studies have shown a direct relationship between successful corporate governance and company performance, which has made corporate governance an increasingly significant issue (Tshipa & Mokoaleli-Mokoteli, 2015). Both management and shareholders think that enhancing corporate success requires the use of sound governance principles. Important aspects of corporate governance include the CEO and chairman's responsibilities, the size and makeup of the board, and their respective functions (Muchemwa et al., 2016). The King Report (King I, King II, King III, and King IV) suggests that there should be a balance between executive and non-executive directors, with most non-executive directors being independent (IoDSA, 1994; 2002; 2009; 2016).

Three corporate governance variables—board size, board independence and audit committee composition—have been considered in this research. These variables have been studied for their ability to impact the firm performance, which has been factored as Return on Assets (ROA), Price-to-Earnings ratio (PE) and Tobin's Q.

2.5.2 Board size

The term "board size" describes the number of directors on a company's board who are assigned to manage the organisation's governance, strategic direction, and decision-making processes (Muchemwa et al., 2016). Many factors go into choosing the board of directors of a firm. These include the size and complexity of the company, statutory requirements, governance best practices such as those outlined in the King Report on Corporate Governance,

and stakeholder representation. Finding the right balance between diversity of expertise and effective decision-making is essential, given the needs and strategic goals of the company.

One crucial instrument of corporate governance used to lessen company failures is the size of the board (Bhagat & Bolton, 2016; Chakrabarti & Sarkar, 2021). According to the research, the size, strategic direction, industry, and complexity of a company determine the ideal board size (Vaidya, 2019). In general, compared to a lean board size, a big board size is shown to be less successful in addressing agency problems that impact company performance (Pamburai et al., 2015)

It is unclear how board size affects company performance. Numerous studies have shown a link suggesting that bigger boards have difficulties with coordination and decision-making, which may reduce the performance of the company (Chen et al., 2015; Dzingai & Fakoya, 2017; Mustapha et al., 2020; Vaidya, 2019). In general, the complex correlation between the size of the board and the success of the company may be influenced by several variables, such as the industry, the size of the company, and the makeup of the board. The effects of board size on the success of the company must be evaluated considering the circumstances and aspects of the company.

> **H_1:** The size of the board depicts a statistically positive correlation between ROA, PE, and Tobin's Q.

2.5.3 Board independence

Corporate governance literature often emphasises how important independent directors are—those who have no relationships to the business or its management that may in any way make them less objective. It is expected of independent directors to provide an outside perspective, challenge management when needed, and act as a check on the power of senior management (Dzingai & Fakoya, 2017). According to King IV, most board members should be independent, and as such, the daily operations of the business do not involve the board (IoDSA, 2016). Supporting the stakeholder theory, the report emphasises that these independent members should concentrate on what is best for the business and its stakeholders, free from undue influence.

International studies from Egypt (Soliman et al., 2014), East Africa (Namanya et al., 2021; Siwadi et al., 2015), Pakistan (Khan & Mahmood, 2023) and Vietnam (Ngo et al., 2023) have shown that the proportion of outside directors without any affiliation to the business improves

the success of the company. This conclusion implies that more independence on the board might encourage higher performance and value of the organisation.

South African studies done on the local regulatory framework, King Report (I, II, III and IV), also reveal a positive outcome for companies selected, where companies with an independent board experience a positive correlation with the company's performance (Muniandy & Hillier, 2015; Pamburai et al., 2015). Dzingai and Fakoya (2017) discovered a moderately favourable relationship between board independence and return on equity (ROE) in their study of South African mining firms listed on the JSE. This implies that these firms could perform better financially if their boards were more independent.

The financial performance of the company and the independence of the board are not significantly correlated, according to several other relevant studies (Smit, 2015; Zakaria et al., 2014). As Zakaria et al. (2014) found, there is no meaningful relationship between the value of the firm and the proportion of independent board members. The results of this study indicate that even if independent directors who are not executives of the company do offer the company certain benefits, such as independent guidance, it is possible that the economic value these directors contribute to the success of the company is not significant enough to justify their appointment. Even though the relationship is insignificant, having a board of directors in a company is important to assist in alleviating the agency problem, review and monitor management decisions and is a good internal measure of corporate governance (IoDSA, 2016).

> **H_2**: A statistically positive correlation exists between ROA, PE, Tobin's Q and board independence.

2.5.4 Audit committee composition

An audit committee (AUC) is a subset of the board of directors and is typically appointed by the board of directors. The main duty of the AUC is to ensure, by independent examination and analysis, the accuracy of the company's financial reports and accounting practices (Al-ahdal et al., 2020; Junaidu & Kabiru, 2022).

The King IV Report provides recommendations on the composition and responsibilities of the committee (IoDSA, 2016). Its guidelines include that non-executive directors with financial experience and independence from the company's management should chair the AUC. It emphasises transparency, accountability, and ethics on the part of the AUC to promote an

atmosphere of honesty and moral leadership in corporate governance procedures (IoDSA, 2016).

Research on the relationship between AUC composition, independence and company performance is positive in several countries (Aanu, 2014; El Hawary, 2021). These positive outcomes demonstrate that an AUC that is more unbiased and financially knowledgeable leads to better corporate performance. Aligning with the agency theory, an AUC may reduce the likelihood of financial irregularities or misrepresentations, which subsequently enhances the company's performance. On the other hand, some study results have shown that the size of the AUC may not directly affect the performance of the company (Al-ahdal et al., 2020; Junaidu & Kabiru, 2022; Waweru, 2018). Rather, the efficiency of the AUC, its structure, and the quality of its monitoring operations are more likely to affect the success of the company.

H3: The independence of the AUC has a positive relationship with firm performance metrics

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter details the methodology employed in studying the impact of corporate governance on firm performance. The methodology includes selecting variables, defining data sources, sampling techniques, and data collection processes that guide this study.

3.2 Data collection methods

This research utilised multiple reliable sources of data for accuracy and a full assessment of the information. Integrated Annual Reports (IARs), together with annual financial statements, made up the main research material for this study, which were obtained from company websites. Annual financial statements contained necessary information that enabled the calculation of ROA, PE, Tobin's Q, ROE, Net Profit Margin, Revenue Growth, and Gearing Ratio. The study gathered data on board size and independence, and AUC independence from the corporate governance sections of IARs, as well as sustainability reports of the companies. The study used JSE corporate governance reports (JSE, 2023) and the King IV report (IoDSA, 2016), together with published corporate governance guidelines established to maintain uniform application for the selected companies.

The calculation of the PE ratio and Tobin's Q variables required stock price information obtained from financial sources, including the Integrated Real-time Equity System (IRESS), Bloomberg, and the JSE's official market data (Bloomberg, 2023; Reuters, 2023). IRESS serves as a financial services platform which was used in the study to obtain both financial statements and various financial ratios that provided extensive information on listed companies (IRESS, 2023).

3.3 Research population and sampling

This study used non-probability purposive sampling to select the companies. According to Gebenser and Piate (2023), purposeful sampling, also called judgmental sampling, is a non-random sampling method in which the researcher chooses participants based on characteristics that are relevant to the research goals. This research method delivers specific advantages because it enables researchers to concentrate on a particular population group that aligns with their investigation requirements for precise and suitable analysis. This study adopted purposive sampling because it aligns with examining corporate governance practices of small and medium-sized enterprises (SMEs) that trade on the JSE AltX.

Research samples were drawn from companies that have listings on the JSE AltX platform for the period 2018 to 2023. Through the AltX trading platform, smaller companies obtain their first opportunity to secure outside funding that advances their growth strategy. The AltX had 55 firms listed as of January 2018. The analysed companies from the JSE AltX exhibit industry diversity because understanding corporate governance influences the need for diverse sector representation. The research targets this market segment to discover findings that directly impact SMEs because smaller businesses face unique difficulties along with distinct business opportunities compared to larger organisations.

During the study period, five new companies were listed on the AltX. The study considered exclusion factors to ensure data integrity before conducting data sampling. Companies that had their trading suspended or were delisted or had bad data at the time the sampling took place were excluded from the research. For a study to be validated for the analysis, such companies must be removed, as the analysis required companies with stable businesses to verify the findings of a study.

The research included 21 companies, which represented 77.78% of all listed firms from the AltX as identified in Table 2. A substantial portion of the AltX market achieved representation in the study, thereby enabling precise analysis of performance and governance relationships specifically for this case. The comprehensive sample composition allows this study to achieve generalisation of the findings on SMEs listed on the AltX to their population while making the insights suitable for stakeholders, alongside policymakers and practitioners who focus on corporate governance issues.

Table 2: Overall research population and sampling

TARGET SAMPLE 2023	Samples
JSE ALTX listed companies in 2018	55
New listing between 2018-2023	5
Deduct Delisted companies until 2023	-33
Total Population - A	**27**
Deduct Delisted companies until 2024	-3
Deduct Companies where no data is available	-3
JSE ALTX target sample - B	**21**
Sample testing % = B/A	**77.78%**

Source: Researcher's own assessment - Appendix 1

3.4 Description of variables

Table 3: Description of variables

Table 3a: Dependent variables

1. **Dependent Variables**	
Return on Assets (ROA)	Operating assets are utilized for generating profits according to the financial metric called ROA. *ROA = Net Income divides by Total Assets.* The value of ROA demonstrates how efficiently a company uses assets to produce profit making it essential for measuring corporate outcome effectiveness. The study done by Namanya et al. (2021) shows that independent board members lead to positive impacts on ROA measurements which indicates that proper governance structures help organizations become more efficient operationally. The King IV Report supports these findings through its evaluation of ethical leadership together with organizational control systems as essential components for better corporate performance (IoDSA, 2016).
Price-to-Earnings (PE) Ratio	The PE ratio evaluates corporate value by dividing present stock price by earnings per share (EPS). *PE Ratio= Market Price per Share/Earnings per Share (EPS)* Investors evaluate the future growth prospects by paying attention to this ratio because it shows how much they desire to invest in each returned unit of earnings. Literature demonstrates that well-managed organisations with diverse boards produce positive effects on financial performance measures that include PE ratios which proves governance practices shape market assessments of companies. Market data is often to derive the PE ratio, and these are reported in financial databases e.g. Bloomberg, IRESS.
Tobin's Q	Tobin's Q is a ratio that compares the market value of a firm's assets to the replacement cost of those assets. *Tobin's Q = Market value of the firm/ Total Asset Value of the firm* A Tobin's Q greater than 1 suggests that the market values the firm's assets highly relative to their replacement cost, indicating potential growth opportunities. Mei Yu (2023) found that effective corporate governance practices, such as separating the roles of CEO and Chairperson, can lead to improved Tobin's Q, reflecting enhanced market confidence in the firm. Data for Tobin's Q can be obtained from financial statements and market data

Table 3b: Independent variables

2. **Independent Variables**	
Board Size	Board size refers to the total number of directors on a company's board. Studies show that board member numbers shape organizational decision processes as well as governance performance effectiveness. A board containing many members brings various viewpoints, yet it increases the difficulty of coordinating board activities. Research conducted by Mishra & Kapil (2018) reveals that bigger boards produce higher firm value which indicates board size could affect two performance metrics ROA and Tobin's Q. According to the King IV Report (2016) a suitable board structure requires a number of directors that supports both efficient decision-making and supervision duties while maintaining adequate inclusive representation.
Board Independence	Board independence refers to the percentage of independent directors who work on the board while lacking ties to company management and holding no important commercial relationships with the company. Namanya et al., 2021 showed that organizations with larger proportions of independent board members achieve enhanced organizational performance through ROE and Tobin's Q measurement. The King IV Report stresses how independent directors strengthen corporate board performance and responsibility which leads to superior governance quality. The adequate representation of shareholder and stakeholder interests depends heavily on this factor.
Audit Committee Independence	The extent to which the audit committee is made of independent directors is measured by this variable. It is important to have an independent audit committee which ensures sound financial reporting free of corruption and fraud and enable efficient management of risk. Audit committee firms are likely to have independent audit committee firms that would lead to higher level of earnings management Al-Matari et al., 2014, which implies better ROA. As governed by the King IV Report there is need to have an independent audit committee amongst other things serving as a governance mechanism to bring transparency and accountability in the financial reporting to the stakeholders.

Table 3c: Control variables

3. **Control Variables**	
Return on Equity (ROE)	ROE parameters affected performance variables, so the model included this variable as part of its controlling mechanism. ROE reveals the relationship between net income and shareholder equity through the expression of *ROE = Net Income/Shareholder's Equity.* ROE demonstrates the capability of a company to transform shareholders' capital into profitable results. Existing studies show that higher ROE corresponds to improved overall company performance according to Vaidya (2019). The research uses ROE control to remove financial performance influence from corporate governance analysis thus it safeguards analysis results against disparities caused by different equity usage levels.
Net Profit Margin	The calculation of Net Profit Margin (NPM) requires division of net income by total revenue through this formula: *NPM = Net Income/Revenue* NP Margin represents the percentage of company revenue that reports as profit after all financial expenses are paid which signifies both operational competence and profitability capacity. Numerous studies have validated NP Margin as a control variable because profit margins that are higher tend to indicate effective governance practices (Dharma, Dalimunthe, Harahap, Susriyanti & Rahay,. 2020). Through this control measure the study will assess corporate governance and firm performance associations independently from profit levels.
Revenue Growth	The research considers Revenue Growth as a control variable because it controls outcomes related to performance measurement. A company uses revenue growth to determine its sales increase rate as a percentage during a particular period. It is calculated as: The calculation for Revenue Growth divides *Current Year Revenue subtracted from Previous Year Revenue by Previous Year Revenue before multiplying it by 100*. Organizations need this performance metric to determine their market growth potential and impact on financial metrics. Previous research documents how firms showing increased revenue growth levels perform well in performance measures (Dharma et al., 2020). Revenue Growth controls enable the research to identify exclusive governance practice effects on business performance without distorting results by enterprise growth.
Gearing (Debt-Equity) Ratio	The study uses the Gearing Ratio as a control factor to determine its performance effects on firms. The Gearing Ratio measures debt-to-equity relationship through this formula: *Gearing Ratio = Total Debt / Shareholder's* Research shows that this factor helps determine both financial leverage and risk exposure level of the company (Pamburai et al., 2015). The relationship between total debt and shareholder equity characterizes the gearing ratio allowing businesses to achieve higher returns with increased financial risk at higher levels. Research demonstrates that organizations with strong governance systems handle their debt amounts with caution which produces

3.5 Research instrument

This section provides a detailed overview of the research instruments, examining the tools and software used for data handling and analysis. The statistical analysis used Microsoft Excel alongside EViews 14 for data handling and analysis. The research organisation first processed the data with Microsoft Excel for formatting purposes before exporting it to EViews 14 for advanced statistical procedures. The analysis required EViews 14 to conduct essential diagnostic testing and format descriptive statistics and correlation testing, in addition to running regression tests. The analysis of bibliometric data used R Biblioshiny in combination with its visual tools to help interpret the information.

The researcher utilised descriptive analysis to thoroughly study all variables that appeared in the study. The research incorporated frequency distributions together with standard deviation (Std. Dev.) (volatility) and mean and median calculations for dispersion assessment. Panel data regression models served to analyse the relationship between governance and performance measures in the next step of the analysis. Reliability and validity tests were conducted through robustness checks and sensitivity analysis, which were followed by subgroup analysis and interaction effects to assess heterogeneity and governing performance relationships. The data presentation included regression coefficients along with visualisation methods, which provided stakeholders operating in the South African market for SMEs with easy-to-understand summaries of empirical findings.

3.5.1 Model specifications

The study employed pooled ordinary least squares (OLS) together with random effects and fixed effects models to evaluate how corporate governance affects ROA and PE ratio and Tobin's Q performance metrics. This study determined the best panel data regression model by using the well-known Breusch-Pagan test and Hausman test approaches. The applied tests validated which regression models were most suitable for studying corporate governance's effect on firm performance.

Three models of regression were developed to assess the link between corporate governance and performance:

For each company *i* in year *t*

1. $\mathbf{ROA_{it}} = \beta_0 + \beta_1 \text{ BoardSize}_{it} + \beta_2 \text{ BoardIndependence}_{it} + \beta_3 \text{ AUCIndependence}_{it} + \beta_4 \text{ ROE}_{it} + \beta_5 \text{ NetProfitMargin}_{it} + \beta_6 \text{ GearingRatio}_{it} + \beta_7 \text{ Revenue}_{it} + u_i + \epsilon_{it}$
2. $\mathbf{PE_{it}} = \beta_0 + \beta_1 \text{ BoardSize}_{it} + \beta_2 \text{ BoardIndependence}_{it} + \beta_3 \text{ AUCIndependence}_{it} + \beta_4 \text{ ROE}_{it} + \beta_5 \text{ NetProfitMargin}_{it} + \beta_6 \text{ GearingRatio}_{it} + \beta_7 \text{ Revenue}_{it} + u_i + \epsilon_{it}$
3. $\mathbf{Tobin's\ Q_{it}} = \beta_0 + \beta_1 \text{ BoardSize}_{it} + \beta_2 \text{ BoardIndependence}_{it} + \beta_3 \text{ AUCIndependence}_{it} + \beta_4 \text{ ROE}_{it} + \beta_5 \text{ NetProfitMargin}_{it} + \beta_6 \text{ GearingRatio}_{it} + \beta_7 \text{ Revenue}_{it} + u_i + \epsilon_{it}$

Where:

- All variables as descripted in Table 3
- β_0: coefficients to be estimated
- β_{1-7}: coefficients to be estimated
- u_i: Unobserved firm-specific effect (fixed or random)
- ϵ_{it}: error term

This chapter presented an all-encompassing analytical approach to study the linkage between corporate governance practices and firm performance, utilising purposive sampling with appropriate statistical analysis methods that concentrate on South African JSE AltX companies, especially high-growth companies.

Chapter 4 presents findings from the empirical research, followed by a discussion about the effect of corporate governance on performance results among these fast-growing firms.

CHAPTER 4: RESEARCH RESULTS

4.1 Introduction

This chapter focuses on the research objectives, to analyse the impact of corporate governance on the performance of firms in JSE AltX. The chapter presents the findings of the study in relation to the research objectives. First, the chapter presents descriptive statistics and secondly, correlation analysis of the variables utilised in the study. Lastly, the study presents the findings of the panel data regression.

4.2 Descriptive statistics

The summary statistics for the dependent and independent variables for all the companies are shown in Table 4. From the result, the minimum ROA for the companies is -76.00 while the maximum value is 0.482. The average ROA is -1.134 with a Std. Dev. of 7.855. A positive 48.2% ROA indicates a good return for the companies listed in the JSE AltX. The minimum PE ratio is -133.876 while the maximum value is 135.386. A very high average PE ratio of 4.251 with a Std. Dev. of 720.250. The minimum and maximum Tobin's Q are 0.000 and 6.428. The average Tobin's Q for the companies in the study is 0.943 with a Std. Dev. of 1.129. This average is very low, indicating that most of the market values of the companies listed on AltX could be undervalued. The average size of the board was seven, with 42.7% consisting of Independent Non-Executive Directors (INEDS), while the AUC had 81.1% INEDs. Although the King IV report does not have specific requirements on the percentages of INED and AUC, most studies indicate that the majority of the board should consist of INEDs.

The series appear to be skewed and leptokurtic, indicating that they are not normally distributed. Positive values for skewness were more pronounced for Tobin's Q, board size and revenue while ROA, PE ratio, board independence, AUC independence, ROE, net profit margin and gearing ratio. All the variables exhibited positive kurtosis. ROA, PE ratio, Tobin's Q, AUC independence, ROE, net profit margin, gearing ratio and revenue showed kurtosis > 3, indicating they exhibit fat tails.

Table 4: Descriptive statistics

Variables	Min	Max	Mean	Std. Dev.	Skewness	Kurtosis
ROA	-76.000	0.482	-1.134	7.855	-8.443	76.506
Price-earnings	-133.876	135.386	4.251	720.250	-0.243	12.931
Tobin's Q	0.000	6.428	0.943	1.129	3.054	13.686
Board size	3.000	11.000	7.086	1.895	0.384	2.515
Board independence	0.000	0.778	0.427	0.193	-0.565	2.908
AUC independence	0.000	1.000	0.811	0.315	-1.677	4.585
ROE	-7.366	3.858	-0.040	1.116	-3.137	26.396
Net profit margin	-7716.000	36.257	-80.788	720.250	-10.412	110.777
Gearing ratio	-4.237	3.509	0.289	0.959	-0.896	8.726
Revenue	-0.100	805.000	11.114	81.076	8.806	83.148

The researcher conducted a normality test on each of the series using the Jarque-Bera test for normality. The results, as shown in Table 5, indicate that not all the variables are normally distributed at the 5% level of significance. Table 5 also shows the unit root test using the Augmented Dickey-Fuller (ADF) test. The results of the ADF test yield stationarity at a 5% level of significance for all the variables in the study.

Table 5: Stationarity test

Test	ROA	Price-earnings	Tobin's Q
Jarque-Bera	27493.32	477.843	732.158
Probability	0.000	0.000	0.000
ADF	-4.7853	-5.497	-5.6281
p-value	0.01	0.01	0.01

4.2.1 Descriptive statistics at company level (ROA)

The summary statistics for company-level performance using ROA are presented in Table 6. The average mean scores for the various companies show variation in the performance of the companies. Across the different companies, the ROA mean score is highest for ISA Holdings Limited with a value of 0.230. The mean ROA values ranged from -22.902 to 14.73. Some of the companies recorded a negative minimum ROA, suggesting that their underlying assets were underperforming.

Table 6: Descriptive statistics of each company's ROA

Company	Minimum	Maximum	Mean	Std. Dev.
4Sight Holdings Ltd	-0.642	0.056	-0.082	0.276

African Dawn Capital Ltd	-1.160	0.482	-0.544	0.640
AH-Vest Limited	0.010	0.073	0.037	0.029
Alphamin Resources Corp	-0.030	0.206	0.065	0.089
Astoria Investments Ltd	-0.139	0.250	0.053	0.179
Brikor Ltd	-0.019	0.059	0.021	0.027
Castleview Prop Fund Ltd	-0.068	0.093	0.029	0.055
Europa Metals Ltd	-4.993	-0.694	-1.557	1.690
Heriot REIT Limited	0.018	0.108	0.074	0.038
ISA Holdings Limited	0.174	0.291	0.230	0.052
Jubilee Metals Group plc	-0.035	0.207	0.081	0.083
Kibo Energy plc	-1.634	-0.131	-0.855	0.759
Mantengu Mining Limited	-76.000	0.065	-22.902	33.835
Newpark REIT Ltd	0.009	0.093	0.040	0.033
Oasis Crescent Prop Fund	0.008	0.113	0.070	0.043
Renergen Limited	-0.355	-0.014	-0.123	0.132
Telemaster Holdings Ltd	-0.062	0.064	0.004	0.045
Universal Partners Ltd	-0.039	0.206	0.066	0.093
Visual International Hldgs Ltd	-1.325	-0.148	-0.493	0.432
Workforce Holdings Ltd	-0.020	0.093	0.050	0.041

Figure 2 displays the mean and confidence interval of ROA for each of the companies. From the diagram, African Dawn Capital Ltd had the greatest ROA, while Mantengu Mining Limited had the least average ROA for the chosen period.

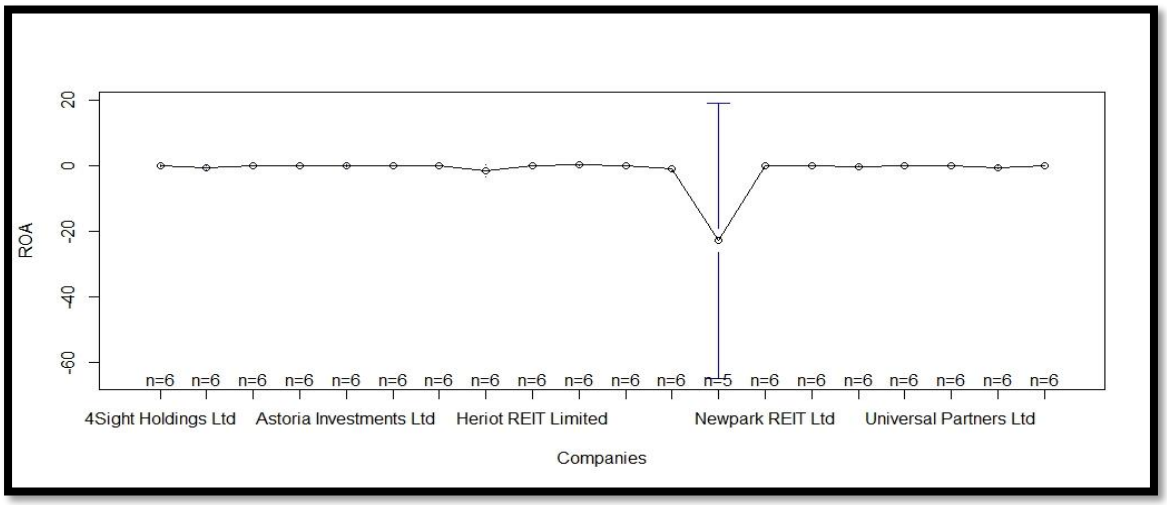

Figure 2: Mean and confidence level - ROA

Figure 3 displays the distribution of ROA for each company for the period 2018 to 2023. From the available data, there was a decrease in ROA for all companies from 2018 to 2019. However, it increased from 2019 to 2023.

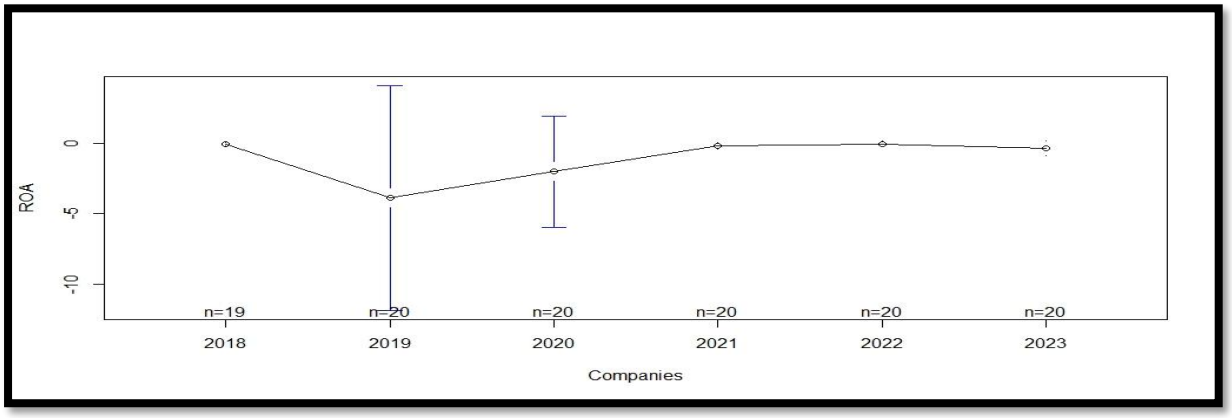

Figure 3: JSE AltX companies ROA distribution

Figure 4 shows the ROA for all the companies considered in the study. Except for a few outliers, the ROA across each of the companies is not significantly different.

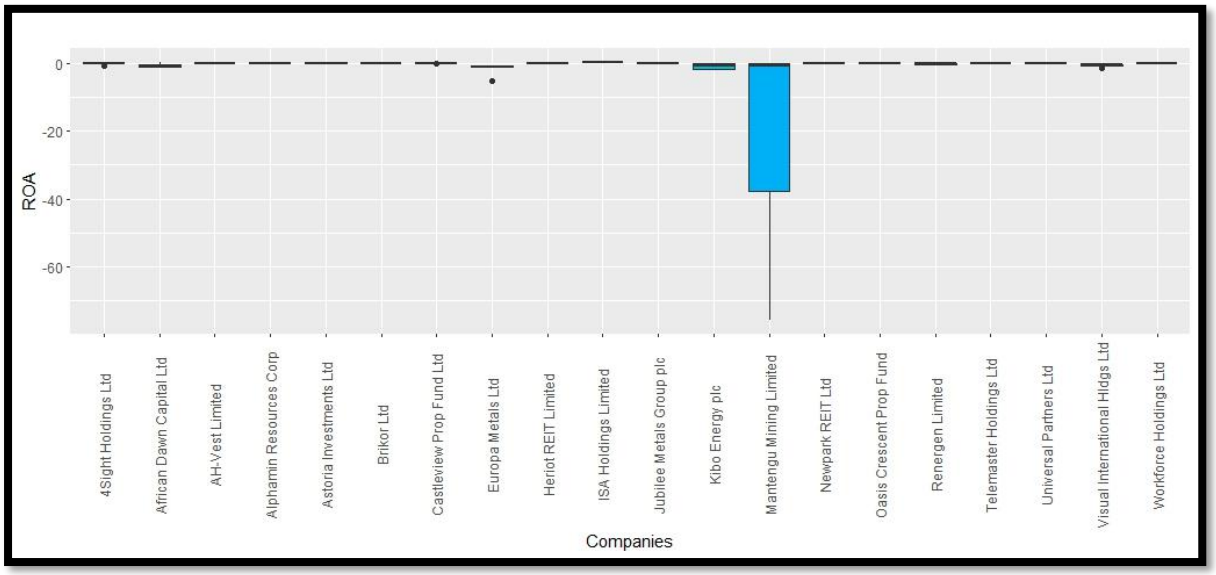

Figure 4: JSE AltX companies - ROA

4.2.2 Descriptive statistics at company level (PE ratio)

The summary statistics for company-level performance using the PE ratio is presented in Table 7. The average mean scores for the various companies show variation in the performance of the companies using price-earnings. Across the different companies, the price-earnings mean score is highest for Oasis Crescent Prop Fund with a value of 27.535.

Table 7: Descriptive statistics of each company's PE ratio

Company	Minimum	Maximum	Mean	Std. Dev.
4Sight Holdings Ltd	-16.668	14.883	4.187	13.145
African Dawn Capital Ltd	-1.678	-0.291	-0.825	0.503
AH-Vest Limited	3.098	42.453	14.772	15.914
Alphamin Resources Corp	8.113	21.455	16.264	5.160
Astoria Investments Ltd	-15.451	5.505	-3.177	7.841
Brikor Ltd	-23.824	104.461	23.618	44.024
Castleview Prop Fund Ltd	-5.951	24.412	7.527	10.067
Europa Metals Ltd	-2.973	-1.096	-1.835	0.727
Heriot REIT Limited	3.005	33.354	11.485	11.304
ISA Holdings Limited	3.380	8.992	7.010	1.919
Jubilee Metals Group plc	5.310	25.420	14.772	7.464
Kibo Energy plc	-13.238	-0.241	-2.943	5.075
Mantengu Mining Limited	-90.715	0.000	-18.143	40.569
Newpark REIT Ltd	3.444	47.302	17.525	16.102
Oasis Crescent Prop Fund	3.522	98.080	27.535	35.449
Renergen Limited	-133.876	-15.454	-58.359	49.063
Telemaster Holdings Ltd	-28.894	135.386	26.685	58.221
Universal Partners Ltd	-24.602	22.709	-1.445	19.036
Visual International Hldgs Ltd	-3.301	-0.411	-1.486	1.070
Workforce Holdings Ltd	-9.902	7.073	1.873	5.942

Figure 5 displays the mean and confidence interval of PE for each of the companies. From the diagram, Telemaster Holdings Ltd had the greatest price-earnings while Renergen Limited had the least price-earnings for the chosen period.

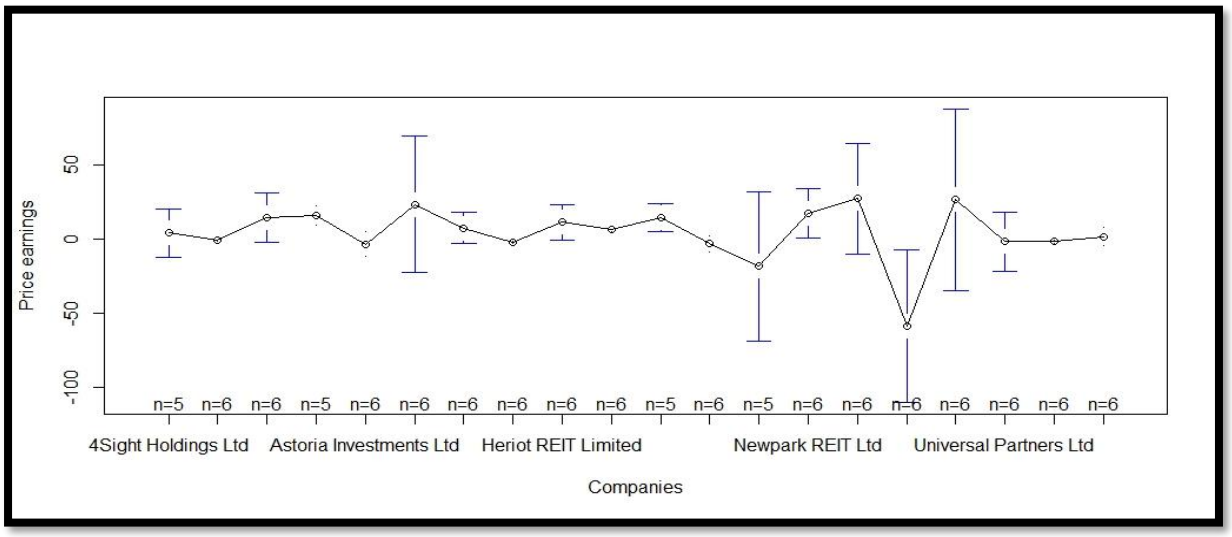

Figure 5: Mean and confidence level of price-earnings

Figure 6 displays the distribution of PE for each company for the period 2018 to 2023. From the available data, the values of the PE ratio for all companies remained fairly level from 2018 to 2023.

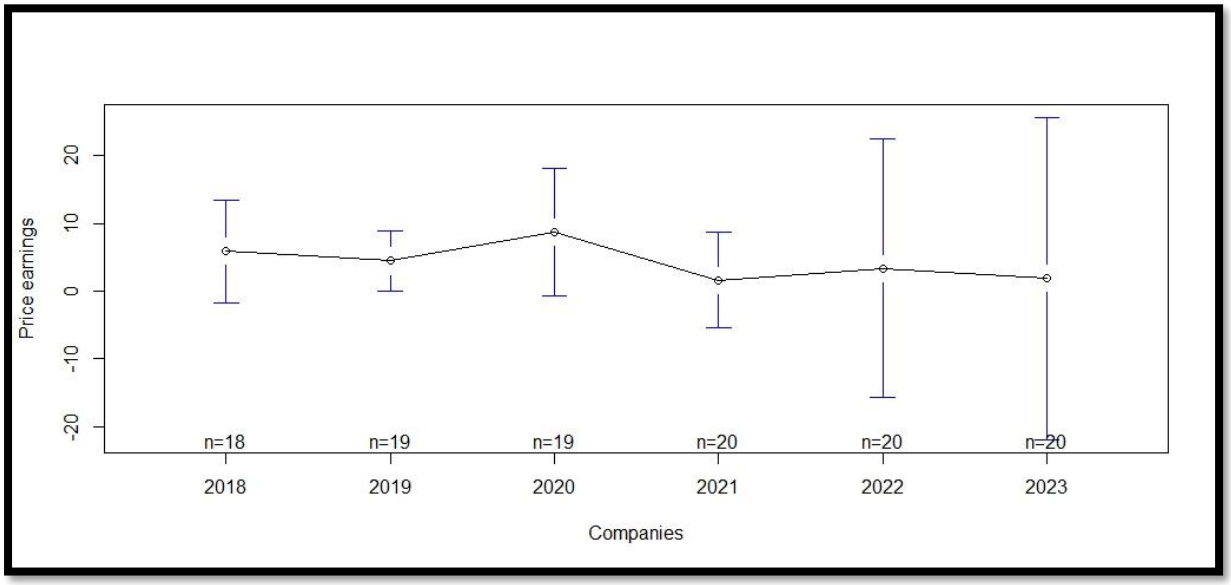

Figure 6: JSE AltX companies - PE distribution

Figure 7 shows the PE ratio for all the companies considered in the study. Except for a few outliers, the price-earnings across each of the companies are not significantly different.

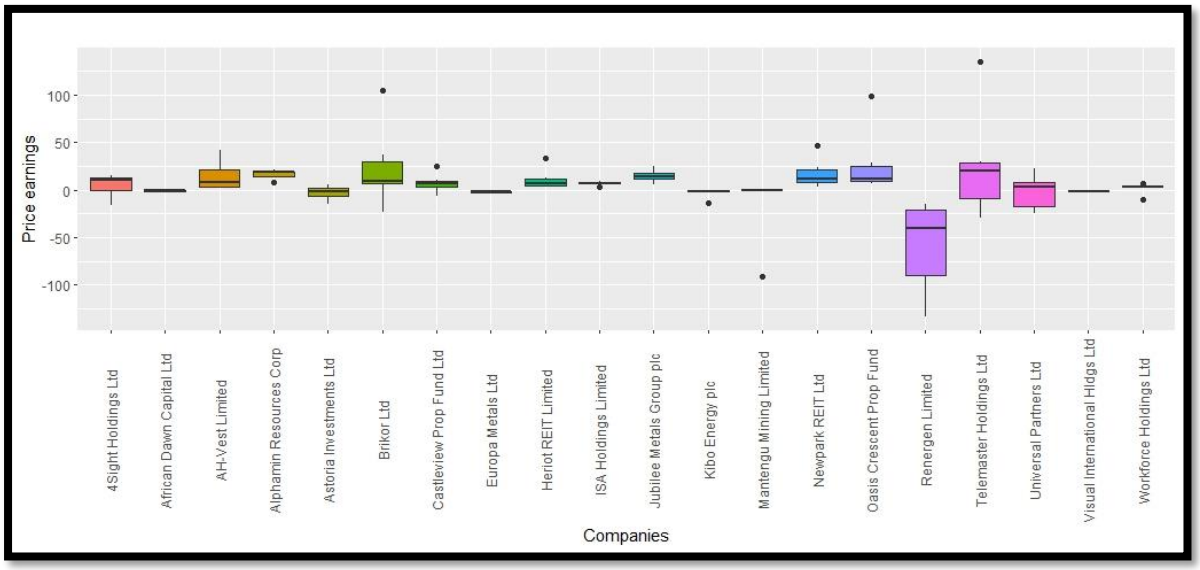

Figure 7: JSE AltX companies - price earnings

4.2.3 Descriptive statistics at company level (Tobin's Q)

The summary statistics for Tobin's Q across each of the companies used in the study are presented in Table 8. Across the sampled companies, Tobin's Q mean score is highest for

Renergen Limited with a value of 3.314 and Std. Dev. of 1.614. Across the different companies, Tobin's Q mean score is highest for Renergen Limited with a value of 3.314, followed by Europa Metals Ltd with a value of 2.483. This suggests that, on average, Renergen Limited is more profitable for investors compared to the rest of the companies. Some of the Tobin's Q values are > 1, implying that these companies provide profit for investors during the period under consideration.

Table 8: Descriptive statistics of each company's Tobin's Q

Company	Minimum	Maximum	Mean	Std. Dev.
4Sight Holdings Ltd	0.298	0.780	0.451	0.198
African Dawn Capital Ltd	0.178	0.909	0.494	0.277
AH-Vest Limited	0.107	0.507	0.267	0.147
Alphamin Resources Corp	0.403	3.441	1.822	1.012
Astoria Investments Ltd	0.580	1.311	0.849	0.301
Brikor Ltd	0.226	1.127	0.489	0.341
Castleview Prop Fund Ltd	0.013	0.542	0.416	0.200
Europa Metals Ltd	0.936	6.428	2.483	2.048
Heriot REIT Limited	0.309	0.613	0.536	0.116
ISA Holdings Limited	0.982	2.116	1.555	0.393
Jubilee Metals Group plc	0.452	1.956	0.935	0.570
Kibo Energy plc	0.016	0.569	0.313	0.201
Mantengu Mining Limited	0.000	6.073	1.215	2.716
Newpark REIT Ltd	0.280	0.467	0.369	0.082
Oasis Crescent Prop Fund	0.736	0.946	0.867	0.094
Renergen Limited	1.440	6.178	3.314	1.614
Telemaster Holdings Ltd	0.632	1.010	0.856	0.159
Universal Partners Ltd	0.527	1.040	0.787	0.213
Visual International Hldgs Ltd	0.102	0.898	0.532	0.254
Workforce Holdings Ltd	0.170	0.340	0.233	0.062

Figure 8 displays the mean and confidence interval of Tobin's Q for each of the companies. From the diagram, Europa Metals Ltd had the greatest Tobin's Q while Renergen Limited had the greatest average Tobin's Q for the chosen period.

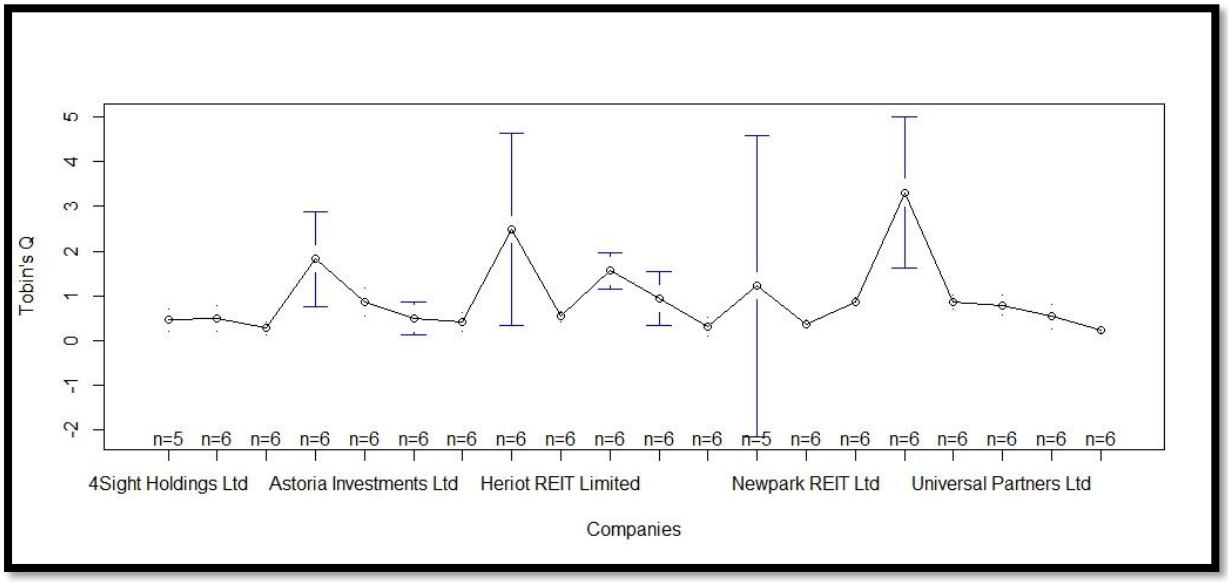

Figure 8: Mean and confidence level – Tobin's Q

Figure 9 displays the distribution of Tobin's Q for each company for the period 2018 to 2023. There was a decrease in Tobin's Q from 2018 to 2019. However, from 2019 to 2023, Tobin's Q increased significantly.

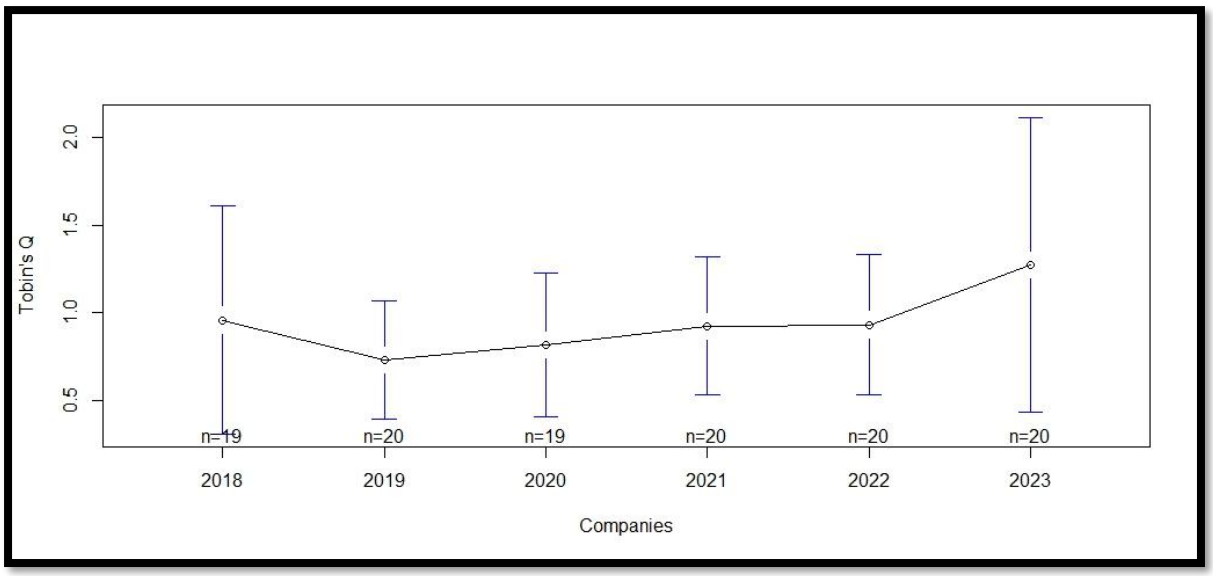

Figure 9: JSE AltX companies - Tobin's Q distribution

Figure 10 shows the Tobin's Q distribution across each of the companies. It is evident from the diagram that there is variation in the Tobin's Q values across each of the companies.

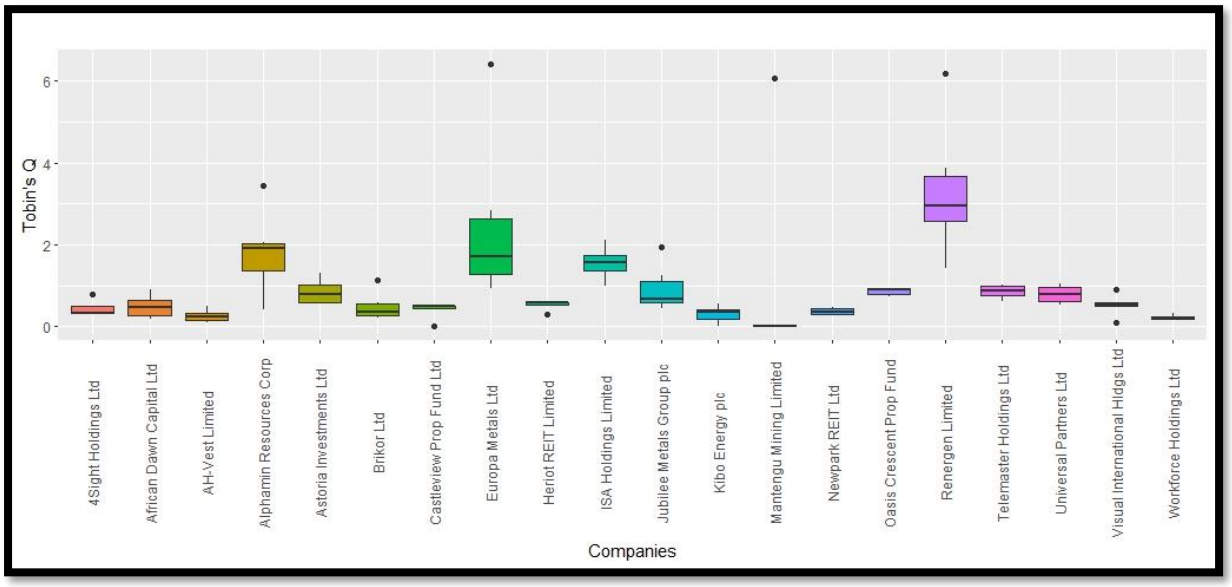

Figure 10: JSE AltX companies - price earnings

4.3 Correlation analysis

Table 9: Correlation matrix

Varia-bles	ROA	PE ratio	Tobin'S Q	Board size	Board indepen dence	AUC indepen dence	ROE	Net Profit Margi n	Gearin g ratio	Reven ue growth
ROA	1.000									
PE ratio	0.025	1.000								
Tobin's Q	0.078	-0.332***	1.000							
Board Size	0.079	0.017	0.075	1.000						
Independence directors	-0.031	0.007	-0.108	0.175	1.000					
AUC independence	0.004	0.032	-0.184*	0.389***	0.749***	1.000				
ROE	-0.013	0.052	-0.303***	0.168	0.192**	0.360***	1.000			
Net Profit Margin	0.005	0.024	0.052	0.117	0.095	0.090	0.167	1.000		
Gearing	0.184*	-0.193*	0.175	0.161	0.054	0.070	-0.525***	0.013	1.000	
Revenue growth	0.002	-0.027	-0.017	-0.180*	-0.188*	-0.298***	-0.301***	0.015	0.094	1.000

*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level.

Table 9 shows the correlation between ROA, price-earnings, Tobin's Q and the independent variables. A significant positive relationship is observed between ROA and gearing ratio. PE ratio has a negative and statistically significant relationship with Tobin's Q and gearing ratio. Tobin's Q has a negative and statistically significant relationship with AUC independence and ROE. Board size has a positive and statistically significant relationship with AUC independence and a negative relationship with revenue. Also, board independence has a positive relationship with AUC independence and ROE and a negative relationship with revenue. The AUC independence has a positive relationship with ROE and a negative relationship with revenue. ROE has a negative and statistically significant relationship with gearing ratio and revenue.

Table 9 above also shows ROA, PE ratio and Tobin's Q variable having a positive relationship with board size, with ROA and Tobin's Q being significant. INED indicates a negative correlation with ROA (insignificant) and Tobin's Q (significant), with a positive but insignificant relation with PE ratio. The AUC independence has a positive but insignificant relation with ROA and PE ratio, however significant negative with Tobin's Q.

4.4 Panel data analysis

To test the impact of corporate governance on company performance, three commonly used techniques, such as the Pearson correlation metrics, pooled ordinary least squares (OLS), fixed-effect (FE) and random-effects (RE) models, were implemented. The study used ROA, PE ratio and Tobin's Q to measure performance.

4.4.1 Panel data regression analysis of corporate governance variables on ROA

4.4.1.1 Pooled regression

To determine the effects of the independent variables on ROA, the OLS regression model was used. Table 10 shows the results of the OLS regression model from pooled time-series cross-sectional analysis. All the predictor variables were statistically positive, however, not significant at the 5% level of significance, except the gearing ratio. There was a positive relationship between ROA and gearing ratio. The F-statistic was 0.738777 with a p-value of 0.65708. This shows that the overall model was not significant and cannot predict ROA. The R-squared is 5.09%, which is an indication that the predictor variables explain 5.09% of the variability in ROA. The variance inflation factor (VIF) of all the independent variables was < 10.

Table 10: Results of pooled regression of independent variables and ROA

Variable	Estimate	Std. Error	t-statistics	P-value
Intercept	-1.257242	3.291345	-0.381984	0.7032
Board size	0.160350	0.433778	0.369660	0.7123
Board independence	-1.330282	5.689433	-0.233816	0.8156
AUC independence	-1.370554	4.035643	-0.339612	0.7348
ROE	1.154484	0.982042	1.175595	0.2423
Net profit margin	-0.000264	0.001051	-0.251184	0.8021
Gearing ratio	2.164725	0.978978	2.211208	0.0291**
Revenue	0.000770	0.009718	0.079224	0.9370
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level.				

4.4.1.2 Fixed effects model

A fixed effects regression model was used to model ROA to mitigate the potential of variable bias with respect to variables that do not change over time. The F-statistic for the model is 2.772787 with a p-value of 0.000163. The adjusted R-squared for the fixed effects model is 28.8579%, indicating the independent variables account for 28.8579% of the variability in ROA. The R-squared is 45.1362% for the fixed effects model, indicating that the independent variables accounted for 45.1362% of the variability in ROA. Gearing ratio has a positive and statistically significant influence on ROA at the 1% level of significance, while ROE has a significant positive influence on ROA at the 10% level of significance.

Table 11: Results of fixed effects regression of independent variables and ROA

Variable	Estimate	Std. Error	t-statistics	P-value
Intercept	13.77901	6.126078	2.249238	0.0269
Board size	-1.377760	0.806535	-1.708246	0.0910
Board independence	-1.174315	12.18309	-0.096389	0.9234
AUC independence	-6.692736	6.938410	-0.964592	0.3373
ROE	1.923725	1.017422	1.890784	0.0618*
Net profit margin	-0.0000442	0.000975	-0.045392	0.9639
Gearing ratio	3.516423	1.063440	3.306650	0.0014***
Revenue	-0.004053	0.008502	-0.476725	0.6347
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level.				

A comparison was made between the pooled regression and fixed-effect model using the Chow test, as shown in Table 12. The F-statistic of the result is 65.209696 with a p-value < 0.000. This suggests that the fixed effects model was preferred over the ordinary pooled regression.

Table 12: Results of Chow test (ROA)

Effects test	Statistics	d.f.	Prob.
Cross-section F	3.495150	-19.91	0.0000***
Cross-section Chi-square	65.209696	19	0.0000***
*** Significant at 0.1% level, **Significant at 1% level, * Significant at 5% level.			

Testing for time-fixed effects using the Lagrange multiplier test (Breusch-Pagan) and the F test for individual effects was performed, results in Table 13. The results (chi-square=251.4841, p-value=0.0019) suggest that there was a need to use the time-fixed effects model.

The Breusch-Godfrey/Wooldridge test for serial correlation results (chi-square=3.154070, p-value=0.0016) suggest that there is serial correlation among the errors. The result for the Breusch-Pagan LM shows a test statistic of 1.154070 with a non-significant p-value (0.2485), suggesting a non-rejection of the null hypothesis of no correlation. There is therefore no cross-sectional dependence.

However, the Pesaran CD test for cross-sectional dependence indicated no cross-sectional dependence (z=0.935014, p-value=0.3498). By conducting this test, we can ensure that the regression analysis is robust and that the conclusions drawn from the data are valid.

Table 13: Results of Pesaran CD test (ROA)

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	251.4841	190	0.0019**
Pesaran scaled LM	3.154070		0.0016**
Bias-corrected scaled LM	1.154070		0.2485
Pesaran CD	0.935014		0.3498
*** Significant at 0.1% level, **Significant at 1% level, * Significant at 5% level.			

4.4.1.3 Random effects model

The F-statistic (1.458435) is not statistically significant (p-value=0.180725), indicating that the independent variables cannot be used to predict ROA. The significant independent variables using the random effects model are gearing ratio at the 5% level of significance and ROE at the 10% level of significance. The gearing ratio has a significant positive impact on ROA. The adjusted R-squared for the random effects model was 3.01%, while the R-squared is 9.59%.

Table 14: Results of random effect regression of independent variables and ROA

Variable	Estimate	Std. Error	t-statistics	P-value
Intercept	4.755042	4.521435	1.051667	0.2953
Board size	-0.453660	0.586714	-0.773222	0.4410
Board independence	-2.248795	8.176110	-0.275045	0.7838
AUC independence	-3.302320	5.258284	-0.628022	0.5313
ROE	1.735721	0.938298	1.849860	0.0670*
Net profit margin	-0.0000619	0.000942	-0.065673	0.9478
Gearing ratio	3.175252	0.989129	3.210149	0.0017**
Revenue	-0.002316	0.008350	-0.277395	0.7820
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level.				

The Breusch-Pagan Lagrange multiplier test for random effect (Chi-square=291.9759, P-value=0.000) with null hypothesis of no panel was rejected in favour of the alternative and concluded that the random effects model was preferred to the OLS method. Conducted the Hausman test to determine the most appropriate model between the fixed effects model and the random effects model. The Hausman test (chi square=6.300592, p-value=0.6136) indicated that the random effects model was preferred over the fixed effects model at the 5% level of significance. The Breusch-Pagan Lagrangian Multiplier and Hausman test show that the random effects model is better than the fixed effects model and the pooled OLS model.

4.4.2 Panel data regression analysis of corporate governance variables on PE ratio

4.4.2.1 Pooled regression

Table 15 shows the results of the OLS regression model from pooled time-series cross-sectional analysis. All the predictor variables were statistically not significant at the 5% level of significance, except the gearing ratio. There was a positive relationship between the price-earnings and gearing ratio. The F-statistic is 1.155881 with a p-value of 0.332757. This shows that the overall model was not significant and cannot predict price-earnings. The R-squared is 7.95%, which is an indication that the predictor variables explain 7.95% of the variability in price-earnings.

Table 15: Results of pooled regression of independent variables and PE ratio

Variable	Estimate	Std. Error	t-statistics	P-value
Intercept	-3.298920	12.63539	-0.261086	0.7945
Board size	0.392564	1.629458	0.240917	0.8101
Board independence	-3.938628	21.83312	-0.180397	0.8572
CEO duality	17.85163	10.04851	1.776545	0.0785

AUC independence	8.688459	15.40326	0.564066	0.5739
ROE	-1.544219	3.664274	-0.421426	0.6743
Net profit margin	0.000884	0.003904	0.226385	0.8213
Gearing ratio	-7.819785	3.654912	-2.139527	0.0347**
Revenue	-0.002379	0.036175	-0.065752	0.9477
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level.				

4.4.2.2 Fixed effect model

A fixed effects regression model was used to model price-earnings to mitigate the potential of variable bias for variables that do not change over time. The F-statistic for the model is 2.679774 with a p-value of 0.000284. The adjusted R-squared for the fixed effects model is 28.28%, indicating the independent variables account for 28.28% of the variability in price-earnings. The R-squared is 45.12% for the fixed effects model, indicating that the independent variables accounted for 45.12% of the variability in price-earnings. Gearing ratio has a negative and statistically significant influence on price-earnings at the 1% level of significance.

Table 16: Results of fixed effect regression of independent variables and PE ratio

Variable	Estimate	Std. Error	t-statistics	P-value
Intercept	-1.727371	23.53331	-0.073401	0.9417
Board size	1.309498	3.079095	0.425286	0.6717
Board independence	10.25342	46.56780	0.220183	0.8262
Ceo duality	5.155104	15.59425	0.330577	0.7417
AUC independence	-6.565792	26.38589	-0.248837	0.8041
ROE	-5.150167	3.858009	-1.334929	0.1853
Net profit margin	-0.000174	0.003687	-0.047316	0.9624
Gearing ratio	-10.92995	4.030154	-2.712042	0.0080**
Revenue	0.008249	0.032147	0.256591	0.7981
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level.				

A comparison to the pooled regression and fixed-effect model using the Chow test was performed, and the results are seen in Table 17. The F-statistic of the result is 59.990280 with a p-value < 0.000. This suggests that the fixed effects model was preferred over the ordinary pooled regression.

Table 17: Results of Chow test (PE ratio)

Effects test	Statistics	d.f.	Prob.
Cross-section F	3.136753	-19.88	0.0001***
Cross-section Chi-square	59.990280	19	0.0000***
*** Significant at 0.1% level, **Significant at 1% level, * Significant at 5% level.			

Testing for time-fixed effects using the Lagrange multiplier test (Breusch-Pagan) and the F test for individual effects was performed; results are shown in Table 18. The results (chi-square=274.4887, p-value=0.0001) suggest that there was a need to use the time-fixed effects model.

The Breusch-Godfrey test for serial correlation results (chi-square=4.334181, p-value=0.000) suggests that there is serial correlation among the errors. The result for the Breusch-Pagan LM shows a test statistic of 2.334181 with a significant p-value (0.0196), suggesting a rejection of the null hypothesis of no correlation. There is, therefore, cross-sectional dependence. However, the Pesaran CD test for cross-sectional dependence indicated no cross-sectional dependence (z=0.996529, p-value=0.3190).

Table 18: Results of Pesaran CD test (PE ratio)

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	274.4887	190	0.0001***
Pesaran scaled LM	4.334181		0.0000***
Bias-corrected scaled LM	2.334181		0.0196**
Pesaran CD	0.996529		0.3190
*** Significant at 0.1% level, **Significant at 1% level, * Significant at 5% level.			

4.4.2.3 Random effects model

The F-statistic (1.078704) is not statistically significant (p-value=0.383597), indicating that the independent variables cannot be used to predict price-earnings. The significant independent variables using the random effects model are gearing ratio at the 5% level of significance. The gearing ratio has a significantly negative impact on price-earnings. The adjusted R-squared for the random effects model was 0.54% while the R-squared is 7.5%.

Table 19: Results of RE regression of independent variables and PE ratio

Variable	Estimate	Std. Error	t-statistics	P-value
Intercept	-5.615414	17.48494	-0.321157	0.7487
Board size	1.151792	2.248818	0.512177	0.6096
Board independence	3.792520	31.54793	0.120215	0.9045

CEO duality	10.82213	12.82959	0.843529	0.4008
AUC independence	2.104662	20.12239	0.104593	0.9169
ROE	-3.952331	3.556301	-1.111360	0.2689
Net profit margin	0.000101	0.003565	0.028372	0.9774
Gearing ratio	-9.841270	3.751302	-2.623427	0.0100**
Revenue	0.006069	0.031594	0.192107	0.8480
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level.				

The Breusch-Pagan Lagrangian multiplier test for random effect (Chi-square=271.4626, P-value=0.000) with null hypothesis of no panel was rejected in favour of the alternative and concluded that the random effects model was preferred to the OLS method.

Conducted the Hausman test to determine the most appropriate model between the fixed effects model and the random effects model. The Hausman test (chi square =2.010923, p-value=0.9807) indicated that the random effects model was preferred over the fixed effects model at the 5% level of significance. The Breusch-Pagan Lagrangian Multiplier and Hausman test show that the random effects model is better than the fixed effects and pooled OLS models.

4.4.3 Panel data regression analysis of corporate governance variables on Tobin's Q

4.4.3.1 Pooled regression

Table 20 shows the results of the OLS regression model from pooled time-series cross-sectional analysis. All the predictor variables were statistically not significant at the 5% level of significance, except ROE and board size at the 10% level of significance. There was a positive relationship between Tobin's Q and board size at a 10% level of significance, and a negative relationship between Tobin's Q and ROE. The F-statistic is 2.488556 with a p-value of 0.016095. This shows that the overall model was significant and can predict Tobin's Q. The R-squared is 15.44%, which is an indication that the predictor variables explain 15.44% of the variability in Tobin's Q. The VIF of all the independent variables is < 10.

Table 20: Results of pooled regression of independent variables and Tobin's Q

Variable	Estimate	Std. Error	t-statistics	P-value
Intercept	0.747190	0.452320	1.651908	0.1014
Board size	0.103063	0.059650	1.727780	0.0869*
Board independence	0.366528	0.791262	0.463219	0.6441
CEO duality	-0.115806	0.369077	-0.313773	0.7543
AUC independence	-0.820018	0.554255	-1.479496	0.1419
ROE	-0.334275	0.133997	-2.494651	0.0141**

Net profit margin	0.000165	0.000143	1.152144	0.2518
Gearing ratio	0.001860	0.133743	0.013909	0.9889
Revenue	-0.001982	0.001325	-1.495160	0.1378
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level.				

4.4.3.2 Fixed effects model

A fixed effects regression model (Table 21) was used to model Tobin's Q to mitigate the potential of variable bias with respect to variables that do not change over time. The F-statistic for the model is 4.415866 with a p-value of 0.000. The adjusted R square for the fixed effects model is 44.08% indicating the independent variables account for 44.08% of the variability in Tobin's Q. The R square is 56.98% for the fixed effects model indicating that the independent variables accounted for 56.98% of the variability in Tobin's Q. ROE and revenue have a negative and statistically significant influence on Tobin's Q at the 5% level of significance.

Table 21: Results of fixed effects regression of independent variables and Tobin's Q

Variable	Estimate	Std. Error	t-statistics	P-value
Intercept	1.455695	0.785931	1.852193	0.0673
Board size	-0.047018	0.103744	-0.453210	0.6515
Board independence	-0.856584	1.569604	-0.545733	0.5866
CEO duality	0.143636	0.528002	0.272037	0.7862
AUC independence	0.270285	0.892973	0.302680	0.7628
ROE	-0.324404	0.130453	-2.486756	0.0147**
Net profit margin	6.41E-05	0.000125	0.513754	0.6087
Gearing ratio	-0.107213	0.136193	-0.787212	0.4332
Revenue	-0.002321	0.001089	-2.131745	0.0358**
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level.				

A comparison of the pooled regression and fixed-effect model using the Chow test was performed, and the results are in Table 22. The F-statistic of the result is 79.751735 with a p-value < 0.000. This suggests that the fixed effects model was preferred over the ordinary pooled regression.

Table 22: Results of Chow test (Tobin's Q)

Effects test	Statistics	d.f.	Prob.
Cross-section F	4.574496	-19,9	0.0000***
Cross-section Chi-square	79.751735	19	0.0000***
*** Significant at 0.1% level, **Significant at 1% level, * Significant at 5% level.			

Testing for time-fixed effects using the Lagrange multiplier test (Breusch-Pagan) and the F test for individual effects was performed (Table 23). The results (chi-square=301.8477, p-value=0.0001) suggest that there was a need to use the time-fixed effects model.

The Breusch-Godfrey test for serial correlation results (chi-square=5.737664, p-value=0.000) suggests that there is serial correlation among the errors.

The result for the Breusch-Pagan LM shows a test statistic of 3.737664 with a significant p-value (0.000), suggesting a rejection of the null hypothesis of no correlation. There is, therefore, cross-sectional dependence. However, the Pesaran CD test for cross-sectional dependence indicated no cross-sectional dependence (z=-1.389746, p-value=0.1646).

Table 23: Results of Pesaran CD test (Tobin's Q)

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	301.8477	190	0.0000***
Pesaran scaled LM	5.737664		0.0000***
Bias-corrected scaled LM	3.737664		0.0002**
Pesaran CD	-1.389746		0.1646
*** Significant at 0.1% level, **Significant at 1% level, * Significant at 5% level.			

4.4.3.3 Random effects model

The F-statistic (2.087254) is statistically significant (p-value=0.043020), indicating that the independent variables can be used to predict Tobin's Q. The significant independent variables using the random effects model are ROE and revenue at a 5% level of significance. Both ROE and revenue have a significant negative impact on Tobin's Q. The adjusted R-squared for the random effects model was 6.92%, while the R-squared is 13.28%.

Table 24: Results of random effect regression of independent variables and Tobin's Q

Variable	Estimate	Std. Error	t-statistics	P-value
Intercept	1.108605	0.608891	1.820696	0.0714
Board size	0.023873	0.078593	0.303755	0.7619
Board independence	-0.399332	1.108425	-0.360270	0.7193
AUC independence	-0.161226	0.702063	-0.229645	0.8188
ROE	-0.322656	0.121421	-2.657333	0.0091**
Net profit margin	0.0000833	0.000121	0.687060	0.4935
Gearing ratio	-0.076957	0.128068	-0.600903	0.5492

Revenue	-0.002292	0.001072	-2.139140	0.0347**
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level.				

Conducted the Hausman test to determine the most appropriate model between the fixed effects model and the random effects model. The Hausman test (chi square =5.786740, p-value=0.6711) indicated that the random effects model was preferred over the fixed effects model at the 5% level of significance. The Breusch-Pagan Lagrangian Multiplier and Hausman test show that the random effects model is better than the fixed effects and pooled OLS models.

The analysis of this chapter focused on understanding how corporate governance methods affect performance for high-growth companies active on the JSE AltX. The research data shows that board size positively impacts ROA, PE ratio and Tobin's Q performance indicators. An exemplary governance structure with proper board monitoring produces positive performance outcomes. The negative relationship identified between INED, AUC with Tobin's Q indicates it might be necessary to review existing governance practices for improving the total firm value. The preference for the random effects model demonstrates why unobserved variables influencing governance and performance interaction should be accounted for in research analysis. The results emphasise the fundamental importance of proper corporate governance in generating performance outcomes, thus preparing the way for recommendations that focus on improving governance standards to maximise the performance of JSE AltX high-growth companies.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.1 Discussion and interpretation

This study set out to explore the impact of corporate governance on the performance of high-growth firms listed on the JSE AltX. The intention was to examine how specific governance mechanisms—namely board size, board independence, and AUC independence—affect firm performance, with the latter being measured through three key indicators: ROA, PE, and Tobin's Q. While corporate governance has become a central topic in discussions around organisational success, particularly in the wake of high-profile corporate failures both locally and globally, its effect on smaller, growth-focused enterprises remains under-explored. This study aimed to fill part of that gap by offering insights that are specific to the unique operating environment of the JSE AltX.

5.1.1 Board size and firm performance

Based on the analysis, the data indicated that there is a positive, but not strong, link between the number of directors and the three performance measures used (ROA, PE and Tobin's Q). For this reason, a bigger board could incorporate a wider set of thoughts and help ensure strong decision-making (Chakrabarti & Sarkar, 2021). For SMEs, and especially those experiencing rapid growth, this benefit is not very noticeable. While a larger board can offer more oversight and include diverse skills, these may be opposed by the difficulty in working with more people, slower decision making, and reduced sense of responsibility. Results from the study suggest support for previous studies that say adding more members to small company boards may not be very useful (Dzingai & Fakoya, 2017; Mustapha et al., 2020).

5.1.2 Board independence

The findings do not correlate with those set by both agency theory and stakeholder theory in that board independence did not impact firm performance significantly. It was found that board independence did not show a significant or negative connection to the results in any of the performance measures. This finding does not challenge the need for independent oversight, but it brings up issues about how independence can be defined and carried out in the context of AltX-listed companies. Alone, independent directors cannot meaningfully influence a firm's results without also giving the board sector-specific knowledge and playing an active role. According to the study, independence is not always the best factor to judge effectiveness and uncovering this might affect our view of what independent directors add to small, high-growth companies.

5.1.3 Audit committee independence

The analysis showed that relying more on independent auditors seemed to have a stronger effect on Tobin's Q ratio but had little or no impact on other important financial measures like ROA and PE ratio. These results seem to go against what many studies have found, which was that having an independent AUC helps make the company's financial reports more reliable and lowers the chance of things going wrong with the business (El Hawary, 2021). However, it is important to look at the situation and environment in which these companies work. For high-growth SMEs, especially those working with limited resources, setting up very strict and formal systems of management can take managers' time and efforts away from key business tasks and make it harder to focus on what is important. Furthermore, even if AUC members are technically independent, that does not always mean they can do their job properly. What may be lacking are clear financial skills, enough time, and being on the same page as a team to make independence work. Therefore, while AUCs play an important role in running a company well, their set-up and how they work should be adjusted to fit the company's size and stage of development.

5.1.4 Control variables

Across the control variables, it was found that the firm's gearing ratio and ROE were the most reliable and significant factors for predicting how well the firm did, mainly focusing on ROA. It appears that the amount of capital a firm holds and its success in acquiring returns from those funds impact its financial situation. This is easy to anticipate because small businesses generally have lower financial resources and are more sensitive to shifts in leverage and profitability metrics.

5.2 Conclusion and recommendations

Corporate governance plays a crucial role in the performance of SMEs listed on the AltX and taking all these findings into account, what becomes evident is that governance frameworks that work well in large, established firms may not translate seamlessly into the SME environment, especially not within high-growth contexts such as the AltX. The evidence suggests that the operational reality of smaller businesses and compliance-driven governance frameworks are not in line. This does not mean SMEs should put corporate governance second. Instead, it implies that less attention on form and more on utility should help to calibrate governance processes more precisely. For instance, the presence of independent board members should be matched by a clear evaluation of their value-add outside the strict

requirements of compliance. Similarly, AUCs must satisfy independence requirements and possess the knowledge and authority to assist strategic financial management

These results imply more generally that a one-size-fits-all approach to governance can be wrong. Policymakers and authorities should be careful not to force too strict governance rules on companies still in the process of scaling up and growing. Consequently, it may be more effective to apply governance regulations that evolve gradually alongside the development of a company. While still stressing responsibility and openness, this would also allow SMEs, many of whom already struggle with little administrative capacity, to have less compliance load.

It is equally important for investors to be well-informed about governance issues. Board independence and AUC composition are commonly viewed as indicators of better governance practices that should be directly related to a company's productivity. Instead, as this research has revealed, especially in relation to developing markets and high-growth companies, these relationships are far from easy to understand. Investors can make better decisions and prevent misreading compliance-based measures as assurances of performance by encouraging a more complex knowledge of governance quality in the context of SMEs.

5.3 Limitations of the study

The various limitations of this study should be considered when reading its findings. Though this figure is still significant, the study comprised only 21 companies from the JSE AltX. The study employed a quantitative method and neglected to consider qualitative factors like team dynamics or internal organisational efficiency. Including board member or CEO interviews would help future studies to gain a more thorough understanding of how governance policies are implemented in actual environments. Similarly, including a comparative analysis with Main Board-listed companies can help to underline the many governance issues and possibilities presented by SMEs.

5.4 Contribution of the study

This study demonstrates that governance plays a significant role in determining a firm's success, yet that relationship is often influenced by a range of unique circumstances. It is essential for AltX SMEs to implement their governance structures with practicality, adaptability and well-planned adaptation to support the growth and progress of their businesses. These firms' governance structures should change as they develop from compliance towards

real value generation. The results presented here not only provide empirical knowledge but also a demand for more intelligent, flexible governance structures that can help the SMEs in South Africa thrive sustainably.

REFERENCES

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

Aanu, O. S., Odianonsen, I. F., & Foyeke, O. I. (2014). Effectiveness of audit committee and firm financial performance in Nigeria: an empirical analysis. *Journal of Accounting and Auditing: Research & Practice*, *2014*(2014), 301176. https://doi.org/10.5171/2014.301176

Chakrabarti, R., & Sarkar, S. (2021). Board composition and firm performance: Empirical evidence from Indian companies. *Asia Pacific Journal of Business Administration, 14*(4), 771-789. https://doi.org/10.1108/APJBA-09-2021-0483

Chen, X., Cheng, Q., & Wang, X. (2015). Does increased board independence reduce earnings management? Evidence from recent regulatory reforms. *Review of Accounting Studies, 20*(2), 899-933. https://doi.org/10.1007/s11142-015-9316-0

Dharma, R., Dalimunthe, L., Harahap, A. S. H., Susriyanti, & Rahay, S. P. (2020). The effects of profitability, growth, and size on company value with capital structure as control variable. *Proceedings of the 8th International Conference on Entrepreneurship and Business Management (ICEBM 2019)* UNTAR, 439-445. Atlantis Press. https://doi.org/10.2991/aebmr.k.200626.074

Donaldson, L., & Davis, J. H. (1994). Boards and company performance: Research challenges the conventional wisdom. *Corporate Governance. An International Review, 2*(3),151-160. https://doi.org/10.1111/j.1467-8683.1994.tb00071.x

Donaldson, T., & Preston, L. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review, 20,* 65–91. https://doi.org/10.2307/258887

Dzingai, I., & Fakoya, M. B. (2017). Effect of corporate governance structure on the financial performance of Johannesburg Stock Exchange (JSE)-listed mining. *Sustainability, 9*(6), 867. https://doi.org/10.3390/su9060867

Ebenezer, A. E., & Piate,R.C.(2023). Assessment of different methods of sampling techniques: The strengths and weaknesses. *Shared Seasoned International Journal of*

Topical Issues, 9(1). https://www.globalacademicstar.com/download/article/assessment-of-different-methods-of-sampling-techniques-the-strengths-and-weakness.pdf

Ehikioya, B. (2009). Corporate governance structure and firm performance in developing economies: Evidence from Nigeria. *Corporate Governance, 9*(3), 231-243. https://doi.org/10.1108/14720700910964307

El Hawary, E. (2021). Audit committee effectiveness and company performance: Evidence from Egypt. *Journal of Governance & Regulation, 10*(2),134-156. https://doi.org/10.22495/jgrv10i2art12

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics, 26*(2), 301-325 https://doi.org/10.1086/467037

Freeman, R. (2010). *Strategic management: A stakeholder approach.* Cambridge University Press. https://doi.org/10.1017/cbo9781139192675

Guluma, T. (2021). The impact of corporate governance measures on firm performance: The influences of managerial overconfidence. *Future Business Journal, 7,* 50. https://doi.org/10.1186/s43093-021-00093-6

Hendrickson, J. (2013). *Financial crisis: The United States in the early twenty-first century.* Palgrave Macmillan. https://doi.org/10.1057/9781137311054.0007

Heng, T. B., Azrbaijani, S., & San, O. T. (2012). Board of directors and capital structure: Evidence from leading Malaysian companies. *Asian Social Science, 8*(3). https://doi.org/10.5539/ass.v8n3p123

Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structures. *Journal of Financial Economics (JFE), 3*(4). https://doi.org/10.2139/ssrn.94043

Junaidu, M., & Kabiru, S. (2022). Audit committee characteristics and financial performance: a study of listed non-financial companies in Nigeria. *European Journal of Accounting, Auditing and Finance Research, 10*(10). https://doi.org/10.37745/ejaafr.2013/vol10n101433

Institute of Directors South Africa (IoDSA). (1994). *Governance Standards and Codes. King Report on Corporate Governance for South Africa.* https://www.IoDSA.co.za/page/governance_standards_and_codes

Institute of Directors South Africa (IoDSA). (2002). *King II Report on Corporate Governance for South Africa.* https://www.IoDSA.co.za/page/governance_standards_and_codes

Institute of Directors South Africa (IoDSA). (2009). *King III Report on Corporate Governance for South Africa*. https://www.IoDSA.co.za/page/governance_standards_and_codes

Institute of Directors South Africa (IoDSA). (2016). *King IV Report on Corporate Governance for South Africa.* https://www.IoDSA.co.za/page/governance_standards_and_codes

Khan, K. M., & Mahmood, Z. (2023). Impact of corporate governance on firm performance: a case of Pakistan Stock Exchange. *Liberal Arts and Social Sciences International Journal (LASSIJ), 7*(1), 24–38. https://doi.org/10.47264/idea.lassij/7.1.2

Kirkpatrik, G. (2009). The corporate governance lessons from financial crisis. *OECD Journal: Financial Market Trends, 2009*(1), 3. http://dx.doi.org/10.1787/fmt-v2009-art3-en

Mishra, R. K. & Kapil, S.(2018). Board characteristics and firm value for Indian companies. *Journal of Indian Business Research, 10*(1). https://doi.org/10.1108/jibr-07-2016-0074

Muchemwa, M., Padia, N., & Callaghan, C. (2016). Board composition, board size and financial performance of Johannesburg Stock Exchange companies. *South African Journal of Economic and Management Sciences, 19*(4), 497-513. https://doi.org/10.4102/sajems.v19i4.1342

Muniandy, B., & Hillier, J. (2015). Board independence, investment opportunity set and performance of South African companies. *Pacific-Basin Finance Journal*, 108-124. https://doi.org/10.1016/j.pacfin.2014.11.003

Mustapha, U., Rashid, N., Bala, H., & Musa, H. (2020). Corporate governance and financial performance of Nigeria listed banks. *Journal of Advanced Research in Dynamical and Control Systems, 12*(1), 5-10. https://doi.org/10.5373/jardcs/v12i1/20201002

Namanya, D., Musiime, G., & Muganga, C. (2021). Board independence and company performance in East Africa. *Research Journal of Finance and Accounting, 12*(12). https://doi.org/10.7176/rjfa/12-12-01

Ngo, M. T., Le, T. N., Nguyen, N. T., & Luu, T. T. (2023). Board independence and financial performance: Empirical evidence on mediating role of market competition from the Vietnamese market. *International Journal of Professional Business Review, 8*(5). https://doi.org/10.26668/businessreview/2023.v8i5.1498

Ntim, C. (2009). *Internal corporate governance structures and firm financial performance: evidence from South African listed firms*. Doctoral dissertation. University of Glasgow. https://doi.org/10.2139/ssrn.1884291

Ntim, C. (2013). An integrated corporate governance framework and financial performance in South African-listed corporations. *South African Journal of Economics, 81*(3), 373-392. https://doi.org/10.1111/j.1813-6982.2011.01316.x

Ntim, C. G., & Osei, K. A. (2011). The impact of corporate board meetings on corporate performance in South Africa. *African Review of Economics and Finance, 2*(2), 83-103. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1974115.

Organisation for Economic Co-operation and Development (OECD). (2009). *Corporate governance and the financial crisis: Key findings and main messages.* OECD. https://doi.org/10.1787/fmt-v2009-1-en .

Organisation for Economic Co-operation and Development (OECD). (2010). *Corporate governance and the financial crisis: Conclusions and emerging good practices to enhance implementation of the principles.* OECD. https://doi.org/10.1007/978-1-349-58635-6_51.

Owolabi, S., Akinlabi, B., & Cole, A. (2020). Assessment of corporate governance on earnings per share of selected deposit money banks in Nigeria. *International Journal of Management Sciences and Business Research, 9*(3), 88-95. https://ijebmr.com/uploads/pdf/archivepdf/2023/IJEBMR_1175.pdf.

Pamburai, H., Chamisa, E., Abdulla, C., & Smith, C. (2015). An analysis of corporate governance and company performance: A South African perspective. *South African Journal of Accounting Research, 29*(2), 115-131. https://doi.org/10.1080/10291954.2015.1006482

Pawley, M. (2006). The impact of survivorship bias on South African unit trust performance: 1972-2004. *Investment Analysts Journal, 64*, 21-26. https://doi.org/10.1080/10293523.2006.11082481

Petra, S. (2006). Corporate governance reforms: Fact or fiction? *Corporate Governance*, *6*(2), 107-115. https://doi.org/10.1108/14720700610655123

Rahman, H. U., & Ali, A. (2022). Revisiting the role of audit and compensation committees' characteristics in the financial performance of the non-financial sector through the lens of the difference generalised method of moments. *Cogent Business and Management, 9*(1). https://doi.org/10.1080/23311975.2022.2085365

Rebeiz, K. (2015). Boardroom's independence and corporate performance: The ever-elusive conundrum. *Corporate Governance, 15*(5), 747-758. https://doi.org/10.1108/cg-07-2015-0096

Siwadi, P., Miruka, C., & Ogutu, F. (2015). The impact of corporate governance on firm performance in the Zimbabwean manufacturing sector. *Corporate Ownership and Control, 12*, 779-790. https://doi.org/10.22495/cocv12i4c7p8

Smit, A. (2015). The quality of reported earnings and the monitoring role of the board: Evidence from small and medium companies. *Southern African Business Review, 19*(2), 52-73. https://doi.org/10.25159/1998-8125/5804

Soliman, M. M., Ragab, A. A., & Eldin, M. (2014). Corporate governance structure and firm financial performance: Evidences from Egypt. *Corporate Board: Role, Duties and Composition, 10*(1), 49-59. https://doi.org/10.22495/cbv10i1art4

Tshipa, J., & Mokoaleli-Mokoteli, T. (2015). The South African code of corporate governance: The relationship between compliance and financial performance: Evidence from South African publicly listed companies. *Corporate Ownership and Control, 12*(2), 149-169. https://doi.org/10.22495/cocv12i2p12

Vaidya, P. N. (2019). Board size and firm performance: A study on BSE 100 companies. *Journal of Management (JOM), 6*(3), 117-123. https://doi.org/10.34218/jom.6.3.2019.013

Waweru, N. (2018). Audit committee characteristics, board ethnic diversity and earnings management: Evidence from Kenya and Tanzania. *International Journal of Corporate Governance, 9(2),*149-174. https://doi.org/10.1504/ijcg.2018.091271

West, A. (2006). Theorising South Africa's corporate governance. *Journal of Business Ethics, 68*, 433-448. https://doi.org/10.1007/s10551-006-9033-5

West, A. (2009). The ethics of corporate governance: A South African perspective. *International Journal of Law and Management, 51*(1), 10-16. https://doi.org/10.1108/17542430910936637

Zakaria, Z., Purhanudin, N., & Palanimally, Y. R. (2014). Board governance and company performance: A panel data analysis. *Journal of Business Law and Ethics, 2*(1), 1-12. https://doi.org/10.20525/ijfbs.v7i4.188

APPENDICES

APPENDIX A: ETHICS CLEARANCE FROM WITS

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School Ethics Committee

04/07/2024

Ethics clearance number: **WWBS/BA0310650w/962**

RE: Ms Lilly Rantjapedi

To whom it may concern

Ms Lilly Rantjapedi (0310650w) is currently registered as a MBA (Research Article) student at the Wits Business School, University of the Witwatersrand, Johannesburg.

This letter is to confirm that, at the time of writing, Lilly Rantjapedi does not need ethical clearance for the study entitled:

The impact of corporate governance on firm performance: A study of high-growth companies listed on the JSE Alternative Stock Exchange (ALTX)

This decision has been reached based upon a description of the project supplied by Lilly Rantjapedi to the Wits Business School Ethics Committee, constituted as a subcommittee of the University Human Research Ethics Committee (Non-Medical), which has been evaluated by the subcommittee chair. This decision has then been ratified by the University Human Research Ethics Committee (Non-Medical).

If, however, Lilly Rantjapedi changes the methods of data collection and analysis for this project, this decision may no longer be valid. If such changes take place, this should be communicated to the Wits Business School Ethics Committee.

Please feel free to contact me or the supervisor should you require any further information.

Yours sincerely,

Ethics Chairperson
Dr Ayanda Magida
☎ +27 11 717 3953
✉ ayanda.magida@wits.ac.za

Supervisor:
Doctor Akpomiemie
✉ euphemia.godspowerakpomiemie@wits.ac.za

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature _____ Date: _____

APPENDIX B: SAMPLED POPULATION

No.	Company	JSE-AltX	Sector	2018 Listings	New listings 2018-2023	Delisted or Suspended by 2023	Delisted or Suspended by 2024
1	4Sight Holdings Ltd	4SI	Financials	✓			
2	Accentuate Limited	ACE	Financials	✓		✗	
3	Advanced Health Ltd	AVL	Health Care	✓		✗	
4	AEP Energy Africa Ltd	AEY	Financials	✓		✗	
5	Afine Investments Ltd	ANI	Financials		✓		
6	African Dawn Capital Ltd	ADW	Financials	✓			
7	AH-Vest Limited	AHL	Consumer Goods	✓			
8	Alaris Holdings Ltd	ALH	Industrials	✓		✗	
9	Alert Steel Holdings Ltd	AET	Consumer Services	✓		✗	
10	Alphamin Resources Corp	APH	Basic Materials	✓			
11	Anchor Group Limited	ACG	Financials	✓		✗	
12	Ansys Limited	ANS	Technology	✓		✗	
13	Astoria Investments Ltd	ARA	Financials	✓			
14	Avior Cap Market Hldg LD	AVR	Technology	✓		✗	
15	Blue Financial Services	BFS	Financials	✓		✗	
16	Brikor Ltd	BIK	Industrials	✓			
17	BSI Steel Limited	BSS	Basic Materials	✓		✗	
18	Buffalo Coal Corp	BUC	Basic Materials	✓		✗	
19	Buka Investments Limited	BKI	Consumer Goods		✓		✗
20	Castleview Prop Fund Ltd	CVW	Financials	✓			
21	Central Rand Gold Ltd	CRD	Basic Materials	✓		✗	
22	Chrometco Ltd	CMO	Basic Materials	✓			✗
23	Copper 360 Limited	CPR	Basic Materials		✓		
24	Etion Limited	ETO	Industrials	✓		✗	
25	Europa Metals Limited	EUZ	Basic Materials		✓		
26	Global Asset Mngment Ltd	GAM	Financials	✓		✗	
27	Go Life International Ld	GLI	Health Care	✓			✗
28	Gold Brands Inv Ltd	GBI	Consumer Services	✓		✗	
29	Heriot REIT Limited	HET	Financials	✓			
30	Imbalie Beauty Limited	ILE	Consumer Goods	✓		✗	
31	IPSA Group plc	IPS	Industrials	✓		✗	
32	ISA Holdings Limited	ISA	Technology	✓			
33	Jubilee Metals Group plc	JBL	Basic Materials	✓			
34	Kibo Mining plc	KBO	Basic Materials	✓			
35	Mainland Real Estate Ltd	MLD	Financials	✓		✗	
36	Mantengu Mining Limited	MTU	Basic Materials		✓		
37	Master Plastics Limited	MAP	Industrials	✓		✗	
38	Mettle Investments Ltd	MLE	Financials	✓		✗	
39	Mine Restoration Inv Ltd	MRI	Industrials	✓		✗	
40	New Frontier Prop Ltd	NFP	Financials	✓		✗	
41	Newpark REIT Ltd	NRL	Financials	✓			
42	Nutritional Holdings Ltd	NUT	Consumer Goods	✓		✗	
43	NVest Financial Hldgs Ltd	NVE	Financials	✓		✗	
44	Oasis Crescent Prop Fund	OAS	Financials	✓			
45	Pembury Lifestyle Grp Lt	PEM	Financials	✓		✗	
46	PSV Holdings Ltd	PSV	Industrials	✓			
47	RBA Holdings Ltd	RBA	Industrials	✓		✗	
48	Renergen Limited	REN	Oil & Gas	✓			
49	Silverbridge Holdings	SVB	Technology	✓		✗	
50	Soapstone Investment Ltd	DMCCB	Financials	✓			
51	Stratcorp Ltd	STA	Financials	✓		✗	
52	Telemaster Holdings Ltd	TLM	Telecommunications	✓			
53	Total Client Services Ld	TCS	Technology	✓		✗	
54	Transcend Res Prop Fd Ld	TPF	Financials	✓		✗	
55	Universal Partners Ltd	UPL	Financials	✓			
56	VestIN Holdings Ltd	VIN	Financials	✓		✗	
57	Visual International Hldgs Ltd	VIS	Financials	✓			
58	Vunani Ltd	VUN	Financials	✓		✗	
59	WG Wearne Ltd	WEA	Industrials	✓		✗	
60	Workforce Holdings Ltd	WKF	Industrials	✓			
	Total			24	5	33	3

APPENDIX C: EDITOR'S LETTER

Napier
7270
Western Cape

24 May 2025

WITS Business School
University of the Witwatersrand
JOHANNESBURG

LANGUAGE & TECHNICAL EDITING

Cheryl M. Thomson

THE IMPACT OF CORPORATE GOVERNANCE ON FIRM PERFORMANCE: A STUDY OF HIGH-GROWTH COMPANIES LISTED ON THE JSE ALTERNATIVE STOCK EXCHANGE (ALTX)

This is to confirm that I, Cheryl Thomson, executed the language and technical edit of the above-titled research report of **LILLY RANTJAPEDI, student number 0310650W**, at **WITS BUSINESS SCHOOL**, in preparation for submission of this research report for assessment.

Yours faithfully

CHERYL M. THOMSON

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