Gordon Institute of Business Science
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The impact of corporate governance instruments on the performance of the State-Owned Entities (SOEs) in South Africa

Student number: 19290447

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ABSTRACT

The objective of the research is to gain an understanding of the impact that corporate governance instruments have on the performance of State-Owned Entities (SOEs) in South Africa. The SOEs have encountered corporate governance failures, despite the existence of corporate governance instruments.

This study is underpinned by the agency theory, as the authority is delegated to various levels within the SOEs to enable the entities to achieve their objectives. The governance instruments that were examined are the number of board members, vacancy rate, number of audit committee members, number of board meetings, restatement of annual financial statements and audit opinion.

A sample of 19 SOEs listed in Schedule Two of the PFMA was selected using stratified random sampling method. Secondary data was collected from the annual reports for the period 2014 to 2018. The results reveal, using regression analysis that the number of audit committee members had a significant positive impact on the SOE's performance, while audit opinion and vacancy rate reflect a significant negative impact on the SOE's performance.

The policy maker should enhance the existing policies on the size of audit committee. This study was limited to quantitative measures and future studies can incorporate the qualitative information.

Keywords

Corporate governance, Board of directors, Audit Committee, Performance

Plagiarism Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination at any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Victor Mabuli Date

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ABBREVIATIONS

SOE: State Owned Enterprise

CHAPTER 1: DEFINITION OF PROBLEM AND PURPOSE

1.1. Introduction

The research topic is introduced in this chapter, focusing on the impact that the corporate governance instruments have on the State-Owned Entities (SOEs)' performance. This chapter will focus on providing details of the research problem. Furthermore, business needs of the study as well as the theoretical needs will be defined in this chapter. The purpose statement of the research will be articulated together with the study's contribution. Finally, the structure of the remainder of the research will be provided towards the end of the chapter.

The study is motivated by the need to understand the relationship that the corporate governance instruments have with the SOE's performance.

1.2. Background to the problem

South Africa's SOEs play a critical role and contribute significantly to the economy of the country. The estimated contribution towards Gross Domestic Product (GDP) by the SOEs is 8.5%. Furthermore, the SOEs are a mechanism that has played an essential role in the reduction of poverty as well as driving economic growth in South Africa since the attainment of majority rule in 1994 (Kikeri, 2018; Apriliyanti & Randøy, 2019). The objectives of SOEs are two-fold: to generate profit while simultaneously expecting to fulfil the public mandate, i.e., service delivery to society, which inherently may result in conflicting priorities between the two goals. This is further exacerbated by the possible self-interest of the SOE'S managers, who may benefit themselves instead of the SOE, which operates on the state's behalf (Jiang & Kim, 2020).

Key South African SOEs have faced governance failure and challenges driven by various factors, including weak accountability. Examples of affected SOEs include South African Airways (SAA) and Eskom Holdings SOC Ltd (Eskom) (OECD, 2015; Ballard et al., 2021). Eskom was once a well-performing SOE. However, governance failure due to the incapacitation of the governance structure, amongst other factors, has contributed to the entity's failure (Kessides, 2020). Similarly, Apriliyanti and Randøy (2019) argue that where governance systems are not well established,

political patronage prevails in the boardroom of SOEs. Thus, governance mechanisms are critical for the success of the SOE.

Governance instruments to give effect to good corporate governance are available. The governance instruments include the Public Finance Management Act (PFMA), the SOE's EXCO, Annual Performance Plans (APP), The Companies Act, Board of directors reserved power, Strategic Plans, King IV Code of Corporate Governance, Shareholder's compacts, Delegation of Authority, Policies, Frameworks, Board and Committee Charters, etc. amongst others. (Ben Fatma & Chouaibi, 2023; Pillai & Al-Malkawi, 2018; Visser et al., 2018; IoDSA, 2016). Given incidents of corporate governance failure in some SOEs, this study sought to understand the impact that corporate governance instruments have on the entities' performance.

1.3. Description of the problem

The SOEs continue to experience financial failure even with governance instruments (Ballard et al., 2021). To contribute towards solving the challenge, it is critical to understand the impact that the corporate governance instruments have on the entities' performance. Consequently, the corporate governance instruments that were measured in the current study are audit opinion, board meeting frequency, vacancy rate, audit committee size, restatement of the financial statements and board size. The results from the study were expected to indicate which instruments significantly impact the performance of the SOEs. Thus, having identified the essential governance instruments, the SOEs are expected to pay more attention to these instruments to address the non-performance.

1.4. Research objectives

The study's overall objective was to understand the impact that the corporate governance instruments have on SOE's performance. The governance instruments that were studied are addressed in section 1.3 under description of the problem.

The secondary objectives are:

- To understand the impact of board size on the entities' performance

- To explore impact of the number of the board meetings on the entities' performance
- To determine the impact of the number of audit committee members on the entities' performance
- To understand the impact of audit opinion on the entities' performance
- To investigate the impact of vacancy rate on the entities' performance
- To determine the impact of re-statement of financial statements on the performance of the SOEs

1.5. The business need for the study

The SOEs play an important role within society as some entities contribute towards the country's economic growth and provide much-needed public services (Kikeri, 2018; Apriliyanti & Randøy, 2019). However, over the years, the government has been placed in a position where bailouts had to be provided to SOEs such as Eskom, Landbank, SAA, and Denel, among others, with R187.4 billion spent on recapitalisations and bailouts between 2000/01 and 2019/20 (National Treasury, 2020). Furthermore, a R331.2 billion bailout was issued by the government, with about 55% allocated to Eskom between 2013/14 and 2022/23 (Daily Maverick, 2023). Additionally, SOE bailouts were expected to increase to R396.1 billion in 2022/23 from R384.7 billion in 2021 (Parliament, 2023). The government bailout of inefficient and ineffective SOEs such as SAA impacts the economy negatively (Tleane, 2020). The SOEs are operating in an environment where the governance structures are in place or are supposed to be in place. Thus, the question that arises is, what is the impact that the corporate governance instruments have on the SOE's performance.

Governance failures such as non-compliance with legislation in various state-owned entities have partly contributed to the decline in the performance of these SOEs in South Africa (Brand, 2019). The 2021/22 audit results of the SOEs show that only two state-owned enterprises out of 20 sampled have achieved an unqualified audit opinion (AGSA, 2022), reflecting the need to understand better the corporate governance instruments' impact on the entities' performance.

Having identified the corporate governance gap above, the study intends to enhance the utilisation of the corporate governance instruments within the SOEs. This, in turn, is expected to

contribute towards addressing the identified governance lapses and contribute to better performance by SOEs.

1.6. The theoretical need for the study

The corporate governance instruments of the SOEs have been well documented with the supplement of the state-owned entities included in King IV (IoDSA, 2016). The SOEs are governed by the PFMA, which enable the existence and implementation of controls and financial management (PFMA, 1999). Furthermore, the leadership of the SOE are appointed considering the requirement of the PFMA and any other relevant regulations (De Visser & Waterhouse, 2020).

There were mixed results in the study by Hossain and Oon (2022), where in the context of Germany; it concluded that the frequency of the board meeting negatively impacted the performance of the company. On the other hand, the same study in Indonesia found that the frequency of the board meetings had a positive effect on the performance of the company. These mixed results have created a gap and the need for the current study to explore the impact that the frequency of the board meetings have on the SOE's performance in the South African context.

Historical studies of the impact that corporate governance instruments have on the performance of an organisation have led to mixed results. In the case of Kyere and Ausloos (2021), it was found that independent board members as a governance instrument had a statistically significant impact on return on assets. Thus, highlighting how important are the board member as an essential element of the corporate governance instrument. On the other hand, Abang'a et al. (2022) concluded that the number of board members has an insignificant impact on the performance of an organisation. This has created opportunities for further study to gain a better understanding of the impact that the number of board members have on the SOE's performance in the context of South African environment.

The mixed results from the study on the impact of the vacancy rate on the performance of the firm have been realised. Wightman et al. (2022) conclude that municipalities' performance in South Africa are impacted negatively by vacancy rate. On the other hand, Lo et al. (2020) found

that the vacancy rate communicates the pending expansion and growth of the firm. The study will attempt to close the gap that has been created by the mixed results as well as bring the South African context in enhancing this study.

The study will be anchored on agency theory. The PFMA confer authority to the line minister, the board and management to administer the SOEs (PFMA, 1999). Implementing the governance instruments is expected to result in differing priorities for stakeholders. This is supported by the studies on the agency problem that have been conducted and show a lack of alignment between the principal, who is a shareholder, and the agent, being the SOE's manager (Jiang & Kim, 2020; Jia et al., 2019).

The study will enhance the understanding of the agency problem as more insights about the apparent lack of positive impact of established governance instruments on SOE will be explored, given that SOEs continue to fail, although these instruments are available.

1.7. Scope of the research

Schedule 2 of the Public Finance Management Act provide the list of entities that are subject of this study. The entities selected were 19 out of 21 from Schedule 2 of the PFMA (Annexure A). The annual report of these SOEs were the source of data collected, which included net profit, total assets, board size, board committee meeting frequency, audit opinion, restatement of financials, audit committee size, and shareholder's equity. The research focused on SOEs only and did not include the private sector to achieve comparability. The study is expected to benefit scholars in the field of shareholders and management of SOE, boards, corporate governance, and performance. As alluded to earlier, the SOEs are essential economic contributors hence the need for the current study (Kikeri, 2018).

1.8. Purpose statement

This quantitative study aims to understand governance instruments' impact on SOE performance. The study will explore the various governance instruments that the SOEs are

currently utilising, as listed in the scope of this research, to establish their respective impact.

1.9. Contribution of the study

The evidence provided under background and the business need of the study indicates that some of the SOEs are not financially sustainable and require government intervention, both financially and governance-wise. The failure occurs even though various governance instruments exist. This study will contribute by providing insights into the impact that the corporate governance instruments have on the SOE's performance and establishing the corporate governance instruments that the SOEs should address and employ more diligently to improve the entities' performance.

In addition, the study will contribute towards policy development for the SOEs. The development is expected to enhance the SOE's performance. Furthermore, the study is expected to contribute towards to the body of knowledge on the phenomenon.

1.10. Research structure

The rest of this research is structured in the following way:

- Chapter Two: A review of relevant literature was conducted to gain insight on the impact of governance instruments on the performance of the SOEs. The review included exploring the existing theory.
- Chapter Three: Six hypotheses will be formulated from the theoretical framework and the literature reviewed.
- Chapter Four: The research methodology and design will be discussed in chapter four.
- Chapter Five: Results will be presented and analysed using a statistical model.
- Chapter Six: The results presented in Chapter 5 will be discussed, addressing the hypotheses and literature review from Chapter Two and Three respectively.
- Chapter Seven: The research findings will be presented, including the implications for stakeholders. The study's limitations and recommendations will be provided in this last chapter. Suggestions for future studies will also be made in chapter 7.

CHAPTER 2: THEORY AND LITERATURE REVIEW

2.1. Introduction

The research objective was to establish the impact that the corporate governance instruments have on the performance of the SOEs in South Africa's context. The governance instruments include the audit committee size, board meeting frequency, the audit opinion and the board of directors' size. Agency theory plays an essential role within the governance environment and is discussed in the section below.

The relevant theories and existing literature regarding corporate governance in the context of the SOEs will be explored. The research hypotheses descriptions will follow in the next chapter.

2.2. Agency theory

The governance of SOEs is anchored in the agency theory, where the shareholder delegates powers to the SOE to implement the objectives that the shareholder has set. The managers in the SOE are responsible for the SOE's daily operations while the shareholders are not, which could lead to managers behaving in a self-serving manner resulting in shareholders' losses (Jiang & Kim, 2020). In line with agency theory, conflicting interests may arise between the SOE and the shareholder because of the self-interest that is inherent to the agent (Scheillemans, 2013). This is further supported by Kräkel (2021), who stated that the principal may prefer a project that maximises shareholders' value while the agent may prefer projects that increase personal value, resulting in conflicting interests. However, where the private interest of the agent is aligned with the objectives of the principal, corporate governance and monitoring reduce self-interest risk, with the agent becoming more stringent when choosing projects to undertake (Jia et al., 2019). Thus, it is essential the principal and the agent are aligned, which may contribute to utilising the governance instruments to achieve the objective, as both parties will benefit from the success of the SOE or the project.

In case of the SOE, the principal is the shareholder represented by the ministers while the agent is the SOE where the board and the executives act as the agent. These arrangements are

managed through agreements/contracts between all the parties involved. (Schillemans & Bjurstrøm, 2020).

In addition, the objectives set as part of the principal and agent relationship should be to ensure the financial sustainability of the SOE, amongst other purposes. In the study by Schillemans and Bjurstrom (2020), it was found that the agent appreciated the performance measures provided by the principal as the measures give the requirements and the framework that the agent works against. In support of the above, Krakel (2021) concluded that to reduce monitoring costs, the principal should be more concerned about the results achieved against the set objectives. Therefore, implementing appropriate performance measures and monitoring thereof is a critical part of implementing governance instruments.

The board of directors of the SOEs are the delegated authority to operate the entities in the best interest of the shareholders, ultimately being the government (PFMA, 1999). The board sub-committees are also delegated the responsibilities by the board of the SOEs to monitor the policies and procures related to the financial sustainability of the entities. Additionally, management of the SOEs are delegated to ensure that the objectives of the entities are achieved. Management is empowered to hire the resources in line with the financial capability of the entity, thus, filling of the vacant positions is an essential element. Agency theory is the appropriate theory as there are potential conflicts of interest driven by self-interest that may arise between different stakeholders within the SOEs.

2.3. Role of the Companies Act

The board of director is responsible for the company. This include directing the company towards achieving specific objective in line with its mandate and function. The board is allowed to drive the function of the company to the extent that it is in line with the requirement of the Memorandum of Incorporation and/or the Companies Act The directors are required to act in the best interest of the company as well as setting up the strategic objectives of the company. (Companies Act 71, 2008). Thus, the Companies Act provide the requirement that the board of director must adhere to, which contribute towards the implementation of the governance instruments.

2.4. Public Finance Management Act's role

The PFMA has been promulgated to provide rules regarding the operation and financial management of state organs that fall within the Act's ambit. The PFMA further confers responsibilities to those charged with governance to ensure that processes and systems are set to safeguard the resources of the organ of the state. The requirement for the organ of the state to prepare annual financial statements and for audit purpose, keep records, contributes to the desire to achieve accountability, and ensure that resources are utilised appropriately (PFMA, 1999).

In terms of section 52 of the PFMA Act of 1999, SOEs that fall within Schedule 2 of the Act are obliged to submit, amongst other documents, a corporate plan, which provides financial projections over three years to the Executive Authority (line Ministry). The first year of the corporate plan provides more details about the plans of the SOE, including a quarterly breakdown of the targets, revenue, and expenditure (SABS, 2023). The corporate plan is utilised as a governance instrument to hold the SOEs accountable against the set objectives for the period under review.

The PFMA provides the rules that, when followed and applied diligently, the SOE will likely operate sustainably. However, SOEs in South Africa have continued to experience financial sustainability challenges (Ballard et al., 2021). The PFMA, Treasury Regulations and guidelines, as governance instruments are critical for those charged with governance, such as the audit committee and the board, in ensuring that the tools are implemented as well as monitored continuously within the SOEs.

2.5. Corporate Governance

IoDSA (2016) defined corporate governance as "the exercise of ethical and effective leadership by the governing body towards the achievement of governance outcomes". These governance results include, amongst others, good performance and effective control. In support of the above definition, Pucheta-Martinez and Gallego-Alvarez (2020) consider corporate governance as

procedures and processes in which the governance structures including the board of directors as well as established committees, direct and control the companies.

As mentioned above, some of the SOEs in South Africa are experiencing governance failure, including declining financial sustainability. The findings by Abang'a et al. (2022) concluded that the financial performance of SOEs in Kenya were impacted positively by the corporate governance. Similarly, Kyere and Ausloos (2021) established that the firm's financial performance is improved when a specific and appropriate corporate governance mechanism is chosen. This further enhances the need for the current study to understand the impact that the corporate governance instruments have on the SOE's performance.

There are mixed findings about the impact the corporate governance instruments have on firm performance, with some outcome indicating a positive relationship between corporate governance and performance. At the same time, other researchers concluded that no positive relationship exist.

2.6. Corporate Governance oversight including framework and regulations.

The SOEs in South Africa are incorporated in terms of the SOE-specific legislation such as the Land Bank and Agricultural Act for the Land Bank; Companies Act (Companies Act 71, 2008); Public Finance Management Act (PFMA) (Public Finance Management Act No. 1, 1999) as well as South African constitution (Visser et al., 2018) in addition to the SOEs own internal governance instruments. These governance frameworks provide guidance regarding the required governance instruments, which include the board structure and the establishment of board sub-committees such as audit committee, social and ethics committee, and remuneration committee, amongst others. Details of some of the governance frameworks that apply to the SOEs are provided below.

In South Africa, the SOE's governance oversight is driven by various frameworks, including National Treasury regulations, revised framework for strategic plans and annual performance plans, and protocol on corporate governance in the public sector, amongst others (Du Toit, 2005;

Department of Public Enterprise, 2002; National Treasury, 2005). Figure 1 below provides an adapted graphical overview of the governance oversight of SOEs in South Africa (Du Toit, 2005).

The overall oversight of the SOEs is provided by parliament through the National Assembly and National Council of Provinces (NCOP), which provide oversight to Cabinet / Executive Authority, which then subsequently provide oversight to the Board. The Executive authority represents the government as a shareholder of the SOEs. The oversight conducted by the Standing Committee on Public Accounts (SCOPA) of reviewing SOE's financial statements, and the audit reports are essential as part of the governance of the SOEs. In addition, reviewing non-financial information from the annual report by portfolio committees enhances the governance of the SOEs (Du Toit, 2005).

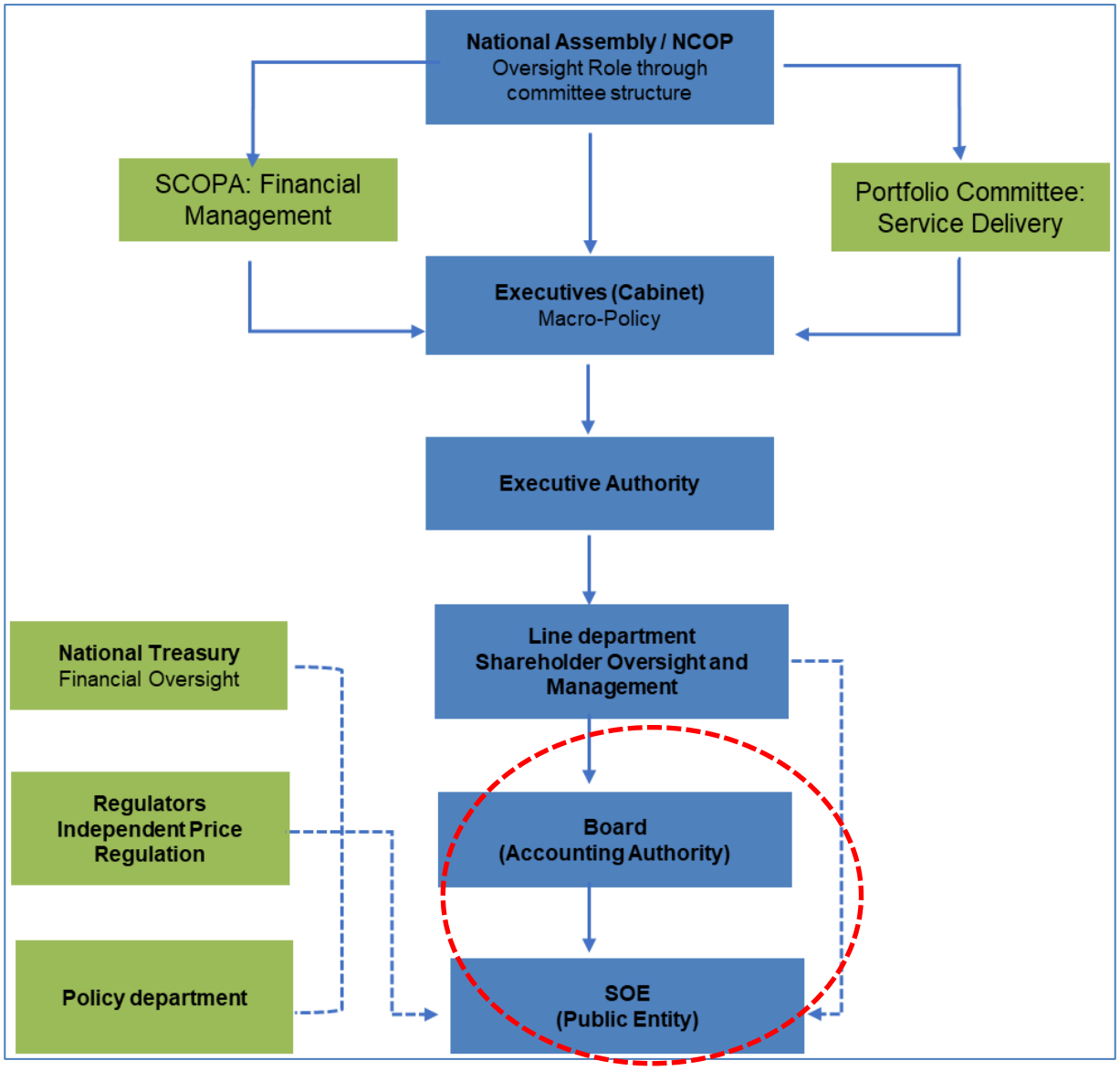

Figure 1: Governance oversight structure for SOE in South Africa - adapted from Du Toit (2005)

2.7. Governance structure - Board of Directors

The governance structure drives the organisational principles that should be aligned with the organisation's objective (Lopes & Farias, 2022). By applying suitable governance instruments, i.e., having an appropriate board size and independent board members, Kyere and Ausloos (2021) concluded that United Kingdom companies can improve their financial performance. In support of the above results, Miglani et al. (2020) concluded that expanding board independence due to actions taken by an entity contributes positively to the entity's turnaround. The above studies dealt with the existence and appropriateness of the governance structure in non-SOEs. The board of directors must have the necessary skills and agility to utilise artificial intelligence (AI) to offer insights to the company within a limited but pressured time (IoDSA, 2023). The insights are critical for decision-making by the board members, which impact entity's performance and sustainability. Thus, further research is required to improve the public sector by utilising the elements of a governance model (Lopes & Farias, 2022), leading to the need for the current study.

2.7.1. Number of board members

The board size of an organisation is constituted by the number of board members. A larger board size may contribute towards sharing knowledge and experience, which benefits the company, leading to agency costs being reduced in addition to the board having the capacity to engage and deliberate effectively with input from the CEO (Forbes & Milliken, 1999; Jia & Zhang, 2013). Contrary to the above, Jensen (1993) and Brown et al. (2006) concluded that the same larger board might lead to members who do not contribute during the discussion as well as ineffective decision-making processes, i.e., difficulty in reaching an agreement because of different interests, leading to an increase in agency costs.

Pillai and Al-Malkawi (2018) studied the impact of corporate governance instruments, such as the size of the board, on the financial performance of companies listed in countries forming the Gulf Corporation Council (GCC). The study used firm-level panel data, testing research hypotheses using GLS regression. The research concluded that the board size significantly impacts the financial performance of the companies in all GCC countries. This finding is supported by Pucheta-Martinez and Gallego-Alvarez (2020), who found that large boards with

female and independent directors increase firm value and shareholder wealth. Similarly, Singh et al. (2018), in a study of the association of corporate governance and the performance of the firm, concluded that positive relationship between the firm's performance and board size exist. The study by Zhou et al. (2018) based on Greek firms publicly traded during 2008-2012 on the Athens Stock Exchange supports the view that firms with large number of board of directors perform better. Additionally, Anderson et al. (2004) concluded that board size impacts the firm's financial performance through lower borrowing costs when there is higher board size. This was driven by the fact that when there is a higher board size, effective monitoring is expected from the board.

The literature documents mixed results, with some scholars indicate that board size has a negative impact on performance of the firm, while others indicated that there is a positive impact. Bohren and Odegaard (2012) found that the performance of the firm decreases with the increase in number of board members. The current study will extend the board size hypothesis of the research by Pillai & Al-Malkawi (2018) to the board size of the SOEs in South Africa and establish whether the board size impacts the SOE's performance. The above-mixed findings lead to the need for the current study, which intends to establish the impact that the governance instruments have on the SOE's performance.

2.7.2. Impact of Board meeting frequency on performance of an organisation

Board meetings are a mechanism by which members of the board discharge their responsibilities towards the entity they serve (Hossain & Oon, 2022). From Kenya's perspective, Abang'a et al. (2022) conducted research on the effect of corporate governance on the state-owned enterprises' performance. The corporate governance instruments included the board skills, gender diversity and frequency of board meetings. The research concluded that the performance of SOEs is impacted positively by frequency of board meetings. The finding was driven by the fact that when there are more frequent board meetings, more matters, including monitoring the SOE's performance, are discussed, and addressed. Similarly, Hossain and Oon (2022) investigated the impact of board leadership and the frequency of the board meeting. They concluded that the board meeting frequency in Indonesia had a positive effect on the performance of the firm because of less enforcement driven by weaker formal institutions. However, in the same study by Hossain and Oon (2022), it was concluded that board meeting frequency in Germany has a

negative association with performance of the firm because more established formal institutions. Similarly, Kateb and Belgacem (2023) concluded that the board meetings impact negatively the return on equity while a positive impact was found in the context of Saudi Arabia.

2.8. Audit committee of the SOE

In terms of the Companies Act of 2008, a minimum of three audit committee members are required to be appointed by SOEs at each annual general meeting. Furthermore, the audit committee member must be one of the directors of the company (Companies Act, 2008). Principle 8 of King IV provides guidelines for the delegation of authority to audit committees by the governing body, amongst others, to promote independent judgement by the governing body (IoDSA, 2016).

The next section will address the audit committee's role, impact that an audit committee has on the performance of an organisation and the supporting role the audit committee provide to the internal audit.

2.8.1. Role of an audit committee

Within the corporate governance ecosystem, the audit committee plays a critical role. The primary responsibility being to ensure that the reporting process results in the manager reporting the entities' performance ethically (Al-Okaily & Naueihed, 2020; Safari Geraylie et al., 2021). The audit committee's role in terms of section 94(7) of the Companies Act of 2008, includes the appointment of external auditors, addressing matters concerning accounting practices, internal financial control, as well as development of a plan to address the governance process within the organisation, amongst others. These roles are essential in ensuring the reliability of the reported performance of an organisation.

Moreover, the audit committee, through its influential monitoring role, reduces potential conflict between the shareholders and those charged with running the organisations (Al-Okaily & Naueihed, 2020). Thus, an effective audit committee enhances the quality of information as well

as reducing information asymmetry that could arise between the management and the shareholders (Agyemang-Mintah & Schadewitz, 2018).

2.8.2. Impact of audit committee characteristics on the performance of an organisation

The size of the audit committee, frequency of the meeting, financial expertise, director's shareholding, and independence are examples of audit committee characteristic (Li et al., 2012; Al-Okaily & Naueihed, 2020). The size of the audit committee is one of the characteristics that is a subject of this study.

The study by Agyemang-Mitah and Schadewitz (2018) on the impact of audit committee adoption in the UK in the context of the financial institutions concluded that adopting an audit committee has a significant and positive impact on the entities' value. In the same way, the association between the non-family firm performance and audit committee characteristics was investigated by Al-Okaily and Naueihed (2020). It was concluded that the non-family firm performance is positively and significantly influenced by the audit committee size. In the context of the United Kingdom, Kyere and Ausloos (2021) found that the number of audit committee meetings, to some extent, influences the financial performance of the firms, although the finding was not conclusive.

On the other hand, Al-ahdal et al. (2020) performed a study on the impact of corporate governance on the performance of the firm in India and Gul Corporation Council (GCC) countries. The study concluded that board accountability and audit committee oversight have an insignificant impact on performance where performance was measured by return on equity and Tobins' Q. Similarly, Al-ahdal and Hashim (2022) investigated the effect of audit committee characteristics and external audit quality on the performance of non-financial public limited companies listed on India's National Stock Exchange 100 and concluded that the audit committee has insignificant positive influence on return on equity. This is further supported by Kateb and Belgacem (2023) in the context of Saudi Arabia, where it was found that the audit committee size, amongst others, does not significantly impact the firm performance.

The above studies on the impact the audit committee characteristics have on the organisations' performance yielded mixed results, with one group indicating a significant positive impact and

the other showing an insignificant impact. These results have motivated the need for the current study to establish whether the audit committee's size impacts the SOE’s performance.

2.8.3. Internal Audit: Supporting role of audit committee

The internal audit function plays a critical role as part of the governance mechanism of the SOEs given that it can identify areas of non-compliance and recommend remedial action during the audit (Weekes, 2020). What remains critical is the implementation of the SOE's remedial action, which requires a strengthened audit committee to monitor the compliance thereof (Mamaile, 2020; Weekes, 2020). Furthermore, Weekes (2020) suggested that support from the audit and risk committee is an essential part of a successful internal audit function, together with the support of the executive management.

2.9. Auditor General South Africa’s role and related audit opinion

The SOEs are required to submit the annual financial statements to the Auditor General South Africa (AGSA) within two months after the financial year-end for audit purpose. Furthermore, within five months after year end, the audited financial statements must be submitted to the executive authority. (PFMA, 1999).

The AGSA is committed to influencing the auditees, which includes state-owned entities, towards improved financial performance, audit outcome and governance. Public entities are essential to the country's economic growth. They provide critical infrastructure, basic services (transport, electricity, water, etc) and delivery of established programmes. The AGSA continues to provide support, insight, and recommendations to public entities to ensure that the entities can achieve financial sustainability underpinned by good governance. The AGSA has developed the accountability ecosystem per Figure 1, which provides a different level of accountability for the public entity. (AGSA, 2022).

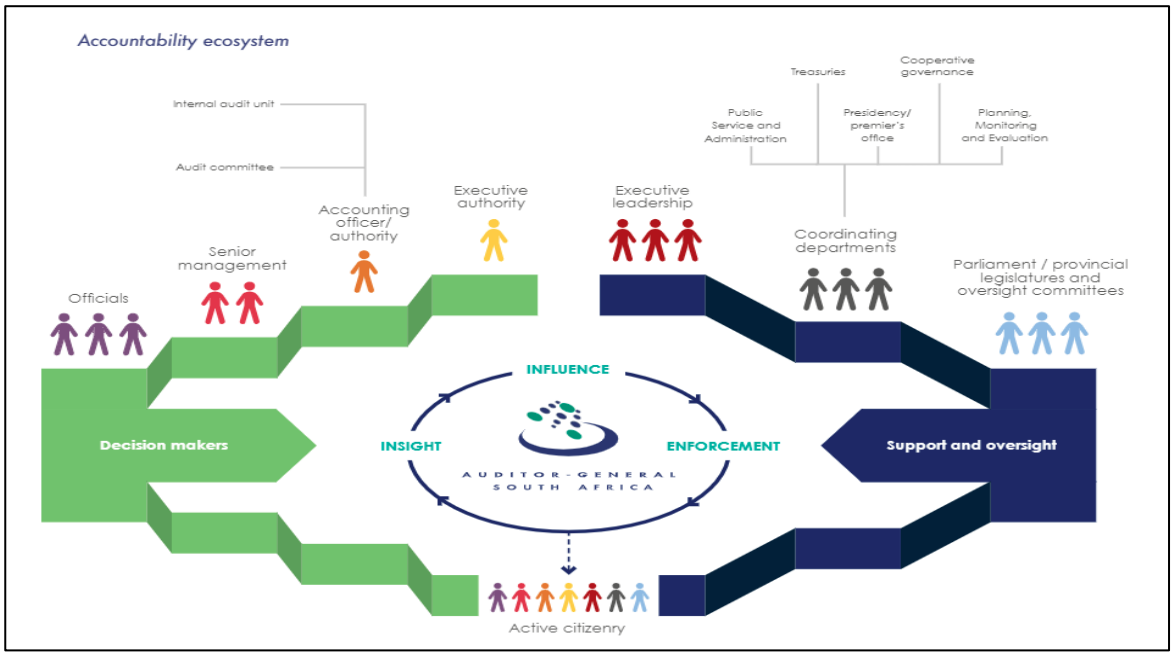

Figure 2: Accountability ecosystem (AGSA, 2022)

The audit outcome partly reflects the effectiveness or non-effectiveness of the public entities' governance structures. Two SOEs out of 20 have each achieved an unqualified audit opinion with no findings, representing a clean audit. At the same time, the remainder is either unqualified with findings (2), qualified with findings (9), disclaimer with findings (2) and outstanding audits (5) (AGSA, 2022). These audit results impact the financial sustainability of public entities as they affect the ability of the entity to borrow if it has borrowing power and increase the cost of borrowing. Thus, the lack of governance instrument utilisation contributes to unfavourable audit outcomes, negatively impacting the SOE. Similarly, the finding by Sir et al. (2021) supported the assertion that the financial performance of the local government is significantly impacted by audit opinion. The current research expanded the research by Sir et al. (2021) and extended the assessment of the impact the audit opinion has on the performance of the SOEs.

2.10. Impact of vacancy rate on performance

Job vacancies refer to positions that have yet to be filled within an organisation. The research by Wightman et al. (2022) investigated the impact of vacancies at a senior level and a lower level of the South African municipalities. The finding of the research was that the performance of the municipality is impacted negatively by vacancies, and the extent of the impact of the vacant senior

or lower-level positions depends on the type of services being rendered. In the context of Taiwanese, a study was conducted on whether posting job vacancies by Taiwanese publicly listed firms indicates subsequent firm performance (Lo et al., 2020). The study concluded that the new vacant position indicated the firm's upcoming positive operating performance. As per the literature above, the mixed results create a need for the current study to determine whether the vacancy rate impacts the performance of the SOEs in South Africa.

2.11. Impact of re-statement of financials on performance of SOEs

The restatement of the financial statements serves as a predictor of possible future misstatements of the financial statement, which may impact the profit of the company. The impact is mainly driven by the potential fraud that may be perpetrated in the future (Qiu et al., 2019). Interestingly, the investors react negatively when the financial statements have been re-stated, which results in a negative impact on the share and price option volatility (He et al., 2019). Similarly, in the earlier study by Kinney et al. (1989), it was concluded that the impact of the restatement of the financials is negative on average towards the return on shares, more specifically between the period of misstatement and disclosure. The current study will extend this study to the SOEs and assess the impact of the re-statement of the financial statements on the performance of the selected SOEs.

2.12. Conclusion

The literature review has demonstrated that corporate governance impacts the financial performance of SOEs. Even with the employment of governance instruments, the challenge remains that SOEs continue to fail. Some challenges include the misalignment of interest that way occur amongst the principal and the agent within the SOE environment.

Chapter three will formulate hypotheses based on the literature review conducted in the current chapter. The hypothesis will address the impact of the size of the audit firm, vacancy rate, board size, the number of board committee meetings and audit opinion, on the performance of the SOEs.

CHAPTER 3: RESEARCH QUESTIONS AND HYPOTHESES

3.1. Introduction

The research objective is to establish the impact of corporate governance instruments on SOE performance. The literature surveyed in Chapter 2 led to the development of the research questions and hypothesis, which will be answered through the current study.

3.2. Research questions

The following are the research questions to enable the objective of the study to be achieved:

- What is the impact that an audit opinion has on the performance of the SOEs?
- What is the impact that vacancy rate has on the performance of the SEOs?
- What is the impact that the size of the audit committee has on the performance of the SEOs?
- What is the impact that the board size has on the performance of the SEOs?
- What is the impact that a number of board committee meetings has on the performance of SEOs?
- What is the impact that the re-statement of financials has on the performance of the SEOs?

3.3. Hypotheses formulation on the corporate governance on SOE performance

3.3.1. Hypotheses on the impact that the board size has on SOE performance, H1

Kyere and Ausloos (2021) concluded that independent board members have a statistically significant impact on the Return on Assets (ROE). This is in contrasts with the results of the study by Abang'a et al. (2022), where it was concluded that board size was found to be statistically insignificant. Additionally, Anderson et al. (2004) concluded that board size impacts the firm's financial performance through lower borrowing costs when there is a larger board size. This was driven by the fact that when there is a larger board size, effective monitoring is expected from the board.

H1: The number of board members does not have a significant impact on performance.

H1ao: The number of board members has a significant impact on SOE's Net Profits.
H1a1: The number of board members has no significant impact on SOE's' Net Profits.
H1bo: The number of board members has a significant impact on SOE's Return on Equity.
H1b1: The number of board members has no significant impact on SOE's Return on Equity.
H1co: The number of board members has a significant impact on SOE's Return on Assets.
H1c1: The number of board members has no significant impact on SOE's Return on Assets.
H1do: The number of board members has a significant impact on SOE's' Total assets.
H1d1: The number of board members has no significant impact on SOE's' Total Assets.
H1eo: The number of board members has a significant impact on SOE's Shareholder Equity.
H1e1: The number of board members has no significant impact on SOE's Shareholder equity.

3.3.2. Hypotheses on the impact of the number of board meetings on SOE performance, H2

The study by Abang'a et al. (2022) concluded that the regularity of board meetings positively impacts the SOE's performance. Similarly, Hossain and Oon (2022) concluded that the meeting frequency of the board of directors in Indonesia positively impacts firm performance due to less enforcement driven by weaker formal institutions. However, in the same study by Hossain and Oon (2022), it was concluded that board meeting frequency in Germany has a negative association with performance of the firm driven by the fact that there are more established formal institutions.

H2: The number of board meetings does not have a significant impact on SOE performance.

H2ao: The number of board meetings has a significant impact on SOE's Net Profits.
H2a1: The number of board meetings has no significant impact on SOE's Net Profits.

H2bo: The number of board meetings has a significant impact on SOE's Return on Equity.
H2b1: The number of board meetings has no significant impact on SOE's ' Return on Equity.

H2co: The number of board meetings has a significant impact on SOE's Return on Assets.
H2c1: The number of board meetings has no significant impact on SOE's ' Return on Assets.

H2do: The number of board meetings significantly impacts SOE's Total Assets.
H2d1: The number of board meetings has no significant impact on SOE's Total Assets.

H2eo: The number of board meetings significantly impacts SOE's Shareholder Equity.
H2e1: The number of board members has no significant impact on SOE's shareholder equity.

3.3.3. Hypotheses on the impact of the number of audit committee members on SOE performance, H3

In assessing the impact that the number of audit committee members have on the SOE's performance, Al-Okaily and Naueihed (2020) concluded that audit committee size amongst others, is positively associated with the non-family firms' performance. In the context of the United Kingdom, Kyere and Ausloos (2021) found that the number of audit committee meetings, to some extent, influences the financial performance of the firms, although not conclusive. These results have motivated the need for the current study to establish whether the number of audit committee members impacts the performance of the SOEs.

H3: The audit committee does not have a significant impact on performance.

H3ao: The number of audit committee members significantly impacts SOE's Net Profits.
H3a1: The number of audit committee members has no significant impact on SOE's Net Profits.

H3bo: The number of audit committee members has a significant impact on SOE's Return on Equity.
H3b1: The number of audit committee members has no significant impact on SOE's Return on Equity.

H3co: The number of audit committee members has a significant impact on SOE's Return on Assets.
H3c1: The number of audit committee members has no significant impact on SOE's Return on Assets.

H3do: The number of audit committee members has a significant impact on SOE's Total Assets.
H3d1: The number of audit committee members has no significant impact on SOE's Total Assets.

H3eo: The number of audit committee members has a significant impact on SOE's Shareholder Equity.
H3e1: The number of audit committee members has no significant impact on SOE's Shareholder equity.

3.3.4. Hypotheses on the impact of the audit opinion on the performance of the SOE, H4

Literature review has highlighted that financial performance is impacted positively by corporate governance (Abang'a et al., 2022). Specifically, the finding by Sir et al. (2021) supported the assertion that for local government, the financial performance is impacted significantly. The current research expanded the research by Sir et al. (2021) by including the assessment of the impact the audit opinion has on the SOE's performance.

H4: Audit opinion has a significant impact on company performance.

H4ao: Audit opinion has a significant impact on SOE's Net Profits.

H4a1: Audit opinion has no significant impact on SOE's Net Profits.

H4bo: Audit opinion has a significant impact on SOE's Return on Equity.
H4b1: Audit opinion has no significant impact on SOE's Return on Equity.

H4co Audit opinion has a significant impact on SOE's Return on Assets.
H4c1: Audit opinion has no significant impact on SOE's Return on Assets.

H4do: Audit opinion has a significant impact on SOE's Total assets.
H4d1: Audit opinion has no significant impact on SOE's Total Assets.

H4eo: Audit opinion has a significant impact on SOE's Shareholder Equity.
H4e1: Audit opinion has no significant impact on SOE's Shareholder equity.

3.3.5. Hypotheses on the impact of the vacancy rate on SOE performance, H5

The findings by Lo et al. (2020) indicate that job opening has a positive impact on the performance of the firm as this is viewed as a positive indicator of the firm. On contrast, Wightman et al. (2022) concluded that vacancies negatively impact the municipalities' performance in South Africa. Consequently, the current study will analyse the impact that the vacancy rate has on the SOE's performance.

H5: Vacancy Rate has a significant impact on company performance.

H5ao: Vacancy rate has a significant impact on SOE's Net Profits.
H5a1: Vacancy rate has no significant impact on SOE's Net Profits.

H5bo: Vacancy rate has a significant impact on SOE's Return on Equity.
H5b1: Vacancy rate has no significant impact on SOE's Return on Equity.

H5co: Vacancy rate has a significant impact on SOE's Return on Assets.
H5c1: Vacancy rate has no significant impact on SOE's Return on Assets.

H5do: Vacancy rate has a significant impact on SOE's Total assets.
H5d1: Vacancy rate has no significant impact on SOE's Total Assets.

H5eo: Vacancy rate has a significant impact on SOE's Shareholder Equity.
H5e1: Vacancy rate has no significant impact on SOE's Shareholder equity.

3.3.6. Hypotheses on the impact of the restatement of financial statements on SOE performance, H6

Restatement of annual financial statements has been determined to have, on average, a negative impact on the stock return and increasing options volatility (Qiu et al., 2019; He et al., 2019; Kinney et al.,1989). Leading from literature, the impact of restatement of financial statements of the selected SOEs will be explored in the current study.

H6 Restatement of financials does not have a significant impact on SOE performance.

H6ao: Restatement of financial has a significant impact on SOE's Net Profits.
H6a1: Restatement of financial has no significant impact on SOE's' Net Profits.

H6bo: Restatement of financial has a significant impact on SOE's' Return on Equity.
H6b1: Restatement of financial has no significant impact on SOE's Return on Equity.

H6co: Restatement of financial has a significant impact on SOE's Return on Assets.
H6c1: Restatement of financial has no significant impact on SOEs Return on Assets.

H6do: Restatement of financial has a significant impact on SOE's Total assets.
H6d1: Restatement of financial has no significant impact on SOE's Total assets.

H6eo: Restatement of financial has a significant impact on SOE's Shareholder Equity.
H6e1: Restatement of financial has no significant impact on SOE's Shareholder equity.

3.4. Conclusion

The research hypotheses will contribute towards achieving the research objective of determining the impact that the corporate governance instruments on the SOE's performance. The quantitative research methodology and the research design will be presented in the following chapter in response to the research hypothesis established in Chapter 3.

CHAPTER 4: RESEARCH METHODOLOGY AND DESIGN

4.1. Introduction

The study's objective was to assess the impact that the employment of corporate governance instruments has on the performance of SOEs in South Africa. The research furthers a study by Kyere and Ausloos (2021), which was expanded by utilising longitudinal data over a five-year period. The hypotheses were established after considering the literature review, which resulted in selecting five hypotheses for testing.

The research methodology utilised for the study was quantitative research, with the intention to establish the association that exist between dependent and independent variables. The research design used to respond to the research hypotheses will be presented in this chapter. Data for the study was collected through a secondary data method from the SOE's annual report, which were selected through a probability sampling technique using a stratified simple random sampling method.

4.2. Research design

4.2.1. Philosophy

Research philosophy is a process of developing knowledge driven by assumptions (Saunders & Lewis, 2018). The positivism philosophy was utilised to assess the impact of governance instruments employed for evaluating the performance of the SOE based on secondary data from the SOE's annual reports. This philosophy is appropriate as the results were based on audited published information and not influenced by bias. The clarity in formulating hypotheses also helps guide the research process (Saunders & Lewis, 2018).

4.2.2. Approach to developing theory

In line with the definition of theory by Saunders and Lewis (2018), how the performance of the SOEs is impacted by the governance instruments was explored. A deductive approach was

followed in the study as it is about establishing the association between the corporate governance instruments and the SOE's performance. This is important as South Africa has witnessed failure and ongoing underperformance of some SOEs, such as Eskom, SAA, PetroSA, etc (Ballard et al., 2021). A deductive approach involves obtaining confirmation or modification of the original theory, depending on whether the results support the theory (Saunders & Lewis, 2018). This study has attempted to establish the impact of corporate governance instruments employed on the SOE's performance utilising secondary data from the annual reports of the SOEs (Saunders & Lewis, 2018).

4.2.3. Methodological choice

A single data collection technique was utilised. Secondary data was obtained from the annual reports of the sampled SOEs. Thus, a mono-quantitative research methodology was used as the study utilised numerical data established from the annual reports (Saunders & Lewis, 2018). Furthermore, ratio data as a subset of numerical data enabled the study to indicate the actual difference as well as the relative difference between the two values being measured (Saunders & Lewis, 2018). This is further supported by Coy (2019), who confirmed that a quantitative study could be conducted when the samples are representative of the population, which may be utilised to explain and, after that, predict the phenomena leading to generalisation.

4.2.4. Purpose of research design

According to Bhattacherjee (2012), research design refers to the plan of how the researcher intends to conduct the research. The research plan for this study will enable the research questions to be answered. As part of the research design, secondary data will be collected from annual reports of the selected SOEs. The annual reports will be scanned for the information and documents the data obtained in Microsoft Excel for further analysis. The sample of the selected entities will be based on stratified random sampling method. (Saunders & Lewis, 2018).

4.2.5. Time horizon

A longitudinal study (time-bound) was performed for the current research as the secondary data collected was for over five years, from 2013/2014 to 2017/18 (Saunders & Lewis, 2018). The time for collecting data by the researcher took a month, driven by the deadline provided by GIBS and the timeframe within which this study had to be completed.

4.3. Research methodology

4.3.1. Population

A complete list of people, entities, and events from which a sample was selected as the subject of the study is generally referred to as the population (Saunders & Lewis, 2018; Eisenhardt, 1989). The 21 SOEs appearing in Schedule 2 of the Public Finance Management Act was the population of this study, meaning they are finite (Saunders & Lewis, 2018). The SOEs are governed and must comply with the PFMA and other required legislation. Hence, the list, per multiple schedules of the PFMA, provided a complete list of South Africa's SOEs. The list of SOEs from the PFMA was the appropriate population for the study as the focus was on establishing the impact that the governance instruments have on the SOE's performance.

4.3.2. Unit of analysis

The unit of analysis refers to the case under study, which can be a person, entity, or event (Yin, 2014). Thus, the selected SOEs were this study's unit of analysis, in line with Yin (2014). The unit of observation was the net profit, return on assets, return on equity, total assets and shareholders' equity employed as a dependent variable and vacancy rate, restatement of the financial statements, size of audit committee, number of board meetings held, audit opinion and size of the board, as independent variables.

4.3.3. Sampling method and size

The population of the SOEs, as outlined in the PFMA, was a complete list of SOEs. Thus, there was an established sampling frame. The sampling frame was further divided into schedules of the PFMA where the sample was selected. Given a sampling frame, the sample from the SOEs was determined using a probability sampling method. This enabled the study to make a statistical inference regarding the population (Saunders & Lewis, 2018).

The stratified random sampling method, as per Saunders & Lewis (2018), was used to select the sample for this study. The sampling frame was the complete list of SOEs as categorised per the schedule of the PFMA. The sampling frame was divided into schedules of the PFMA, and major public entities per schedule two of the PFMA were chosen. Applying the simple random sampling method as part of the stratified random sampling method, 19 SOEs were selected from the Schedule Two sampling frame. The sample of 19 represents the minimum sample size given the total population of 21 SOEs as per schedule two of the PFMA. The minimum sample of 90% for the study was in line with Saunders et al. (2016), where the sample minimum size percentage was determined at 88%. The selected SOEs were analysed over a five-year period based on publicly published and available annual reports from 2013/2014 to 2017/18 financial years. The period was chosen as this represents a pre-COVID reporting period to exclude COVID-19 impact on the results. The annual reports were obtained from the publicly available annual reports from each SOE's websites and other publicly available channels, such as the parliamentary websites.

4.3.4. Research instrument

The research used secondary data generated from the SOE’s financial statements. The financial statements were obtained from various publicly available sources including the entities websites, parliamentary websites, and others.

4.3.5. Data collection process

Ethical clearance was obtained from the Gordon Institute of Business Science (GIBS), before the data-gathering process commenced, where the candidate was registered for his studies. Data

gathering may be performed using various methods, including primary and secondary data collection methods (Saunders & Lewis, 2018; Eisenhardt, 1989).

Secondary data was utilised for the study. The data was obtained from the annual reports of the SOEs, which are available on the websites of the SOEs and the Parliament of South Africa website. There was no payment for access to the annual reports, as these are publicly accessible documents. The annual reports had all been audited by the AGSA or a delegated auditing firm supported by the AGSA.

The data collected from the annual reports included the audit opinion, net profit, total assets, vacancy rate, shareholders' equity, board size, number of board meetings, restatement of annual financial statements and audit committee size. Interpolation was used for the vacancy rate as fewer SOEs disclosed sufficient information to determine the vacancy rate. Thus, this information was used for statistical analysis using the regression model to establish the relationships between the dependent and independent variables.

4.3.6. Data Analysis Approach

Multiple regression, a statistical analysis model, was used for data analysis to ensure that the identified multiple variables were accounted for (Kang & Zhao, 2020). The longitudinal regression analysis, a regression over a long period, was conducted as the study covered five years from 2013/2014 to 2017/2018, with 19 SOEs selected. The STATA version 15 software was utilised to generate the descriptive statistics for the variables and conduct statistical analysis on the variables, establishing the existence of correlation. The association between the dependent and independent variables was established using a correlation method based on the collected secondary data (Kyere & Ausloos (2021).

4.3.7. Quality validation and reliability of the research

A stratified simple random sampling method of probability sampling was used to achieve the quality of the study and avoid bias by the researcher. This sampling method apply where the

sample of SOEs are selected randomly from the sub-divided sample frame, i.e., schedule two of the PFMA. Furthermore, each sample from schedule two had an equal chance of being selected, as Microsoft Excel functionality was utilised to select the sample. The annual reports used were audited by the AGSA or a delegated auditing firm by the AGSA. Consistent data was obtained from the annual reports of the selected SOEs to ensure reliability and consistency of data.

Research validity contributes to the quality of the research and the validity of the resultant findings. Should the study's validity be in question, the results will be invalidated. (Saunders & Lewis, 2018). Furthermore, the study must produce reliable findings. The study will be considered reliable where the results can be linked clearly to the method and data collected (Saunders & Lewis, 2018). To ensure reliability, the data collected have audit trails, as the data can be traced back to the annual reports.

4.3.8. Limitations

The study was limited to only SOEs in South Africa, meaning that it cannot be generalised to other non-SOEs. Therefore, the study was limited to 19 PFMA schedule 2 entities based on their audited annual reports. The study was limited to a 5-year defined period. The reliance on the annual report may also place limitations on the study in instances where the reported numbers are not accurate, even though they have been audited and may subsequently be restated.

The researcher’s credibility, driven by the experience of conducting research and training (Patton, 1999), may be questioned due to inexperience. This limitation was addressed by having a research supervisor who guided the researcher and the faculty available at GIBS.

4.3.9. Data storage

The data collected is safely stored in the researcher’s personal computer with password protection.

4.3.10. Conclusion

The basis for choosing the quantitative methodology was motivated in this chapter. In addition, how data was collected and analysed has been elaborated upon. The process of achieving the research's quality and validity was illustrated. Finally, the study's limitations, were outlined.

The following chapter will present the results from the statistical analysis, which include descriptive statistics as well as regression analysis conducted from the collected data.

CHAPTER 5: RESULTS

5.1. Introduction

The empirical findings are presented in this chapter. The description of the sample obtained and analysed is presented first, followed by descriptive statistics of the variables used, presentation of correlation analysis, and panel regression analysis. STATA version 15 statistical software was used for empirical research.

5.2. Description of sample obtained and analysis process.

The sample of 19 SOEs was selected from schedule 2 of the PFMA using the stratified simple sampling method. Data on the independent and dependent variables, as documented in chapter four, were generated from the SOE's financial statements to establish the relationship between these variables.

The study's objective is to establish the impact that the corporate governance instruments have on the performance of the SOEs. To establish the relationship between the dependent and independent variables, panel regression analysis was the appropriate technique applied. Furthermore, before performing regression analysis, diagnostic tests to test the assumption for unit root, multicollinearity, normality and Hausman model specification was conducted. Descriptive statistics will be presented for the corporate governance instrument and the performance indicator variables in the next section.

5.3. Descriptive Statistics

In this section, the data collected for this study is summarised and presented using descriptive statistics for all the variables before regression analysis as well as the hypotheses testing. The aim of using descriptive statistics is to provide a summary of the collected data that has been used for statistical analysis.

5.3.1. Descriptive statistics of governance instruments variables

The descriptive statistics for the number of board members, vacancy rate, the number of board meetings, the number of audit committee members, audit opinion and restatement of financials are presented in Tables 1 to 6 and Figure 3. The first descriptive statistics to be presented is for the number of board members per table one.

5.3.1.1. Descriptive statistics: Number of board members.

Below is Table 1, which presents the descriptive statistics for the number of board members of the selected SOEs during the study period.

Table 1: Number of board members trend analysis

Year	N	Mean	Standard deviation	Min	Max
2014	17	11.706	2.285	8	15
2015	19	11	1.886	8	14
2016	19	10.211	2.84	4	14
2017	19	10.105	2.208	6	15
2018	19	10.684	2.237	6	15

The mean of the number of board members shows a decreasing trend overall. When considering the measured standard deviation and mean figures, the overall dispersion of the number of board members among the SOEs was estimated at 19.5% in 2014 and 20.9% in 2018. This variation reflects the overall picture among the selected SOEs and indicates the extent of variability in the size of the boards for these SOEs. In the next section, the descriptive statistics for the number of board meetings will be presented.

It should be appreciated that the size of the board depends various factors, including the SOE's enabling legislation, size and complexity of the organisation and its revenues and geographic presence (locally, nationally, and regionally).

5.3.1.2. Descriptive statistics: Number of board meetings held.

Figure 3 summarises descriptive statistics for the number of board meetings held by SOEs from 2014 to 2018.

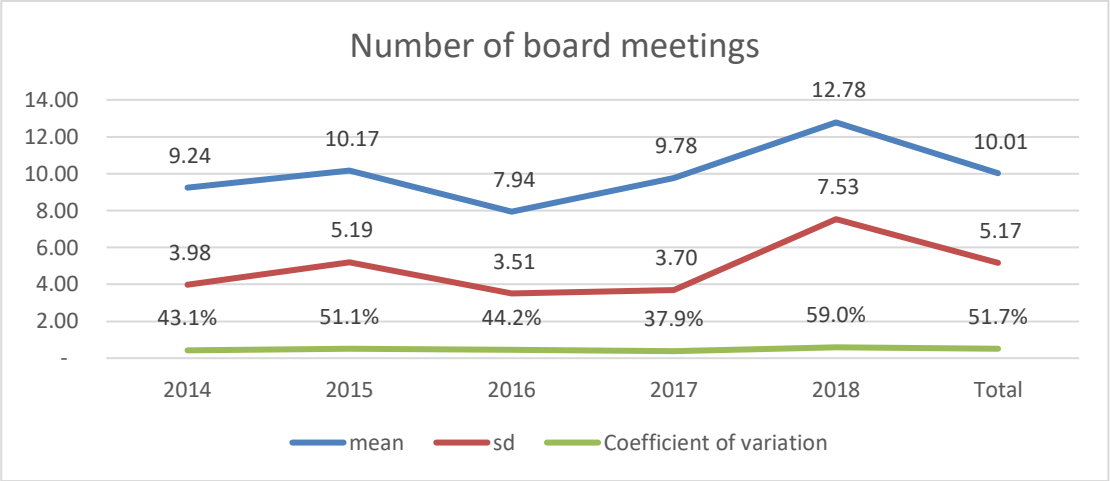

Figure 3: Descriptive statistics for number of board meetings

On average, board meetings declined from 9.2 in 2014 to 7.9 in 2016 but increased to 12.8 in 2018. The standard deviation and mean values indicate considerable variation in the number of board meetings held by SOEs over the five-year period. This reflects the wide range of differences in the frequency of board meetings among the SOEs.

The following section presents the descriptive statistics for the number of audit committee members.

5.3.1.3. Descriptive statistics: Number of audit committee members

The summary of descriptive statistics for the number of audit committee members from 2014 to 2018 can be found in Table 2 below. Notably, there was an increase in the average number of audit committee members from 2014 to 2015, followed by a decrease from 2016 to 2017. In 2018, the average number of audit committee members increased to 4.63. Examining the standard deviation and mean figures, it is evident that the number of audit committee members among the SOEs varied significantly. The degree of variation ranged between 41% in 2014 and 46% in 2016. It also ranged between 30% in 2017 and 35% in 2018. This underscores the notable variability in the number of audit committee members that SOEs have.

Table 2: Descriptive Statistics for the number of audit committee members

year	N	mean	sd	min	max
2014	16	4.875	1.024695	3	7
2015	18	4.888889	1.936914	0	8
2016	19	4.473684	2.037657	0	8
2017	19	4.315789	1.293257	3	7
2018	18	4.666667	1.608799	2	8
Total	90	4.633333	1.617669	0	8

The descriptive statistics for audit opinion will be presented in the next section, which includes the mean and standard deviation.

5.3.1.4. Descriptive Statistics: Audit Opinion

Figure 4 presents an overview of the audit opinion descriptive statistics of the selected State-Owned Enterprises (SOEs) from 2014 to 2018. The data reveals an upward trend in the mean of the audit opinion for the period. The degree of variation (dispersion) in the audit opinion variable among the SOEs ranged between 29.1% in 2014 and 50.9% in 2018, as indicated by the measured standard deviation. The table also shows that the mean of the audit opinion component increased from 1.11 in 2014 to 1.63 in 2018. This suggests a larger range of variability in the audit opinions for the different SOEs over the study period. The various audit opinions include unqualified, qualified, disclaimer, and adverse audit opinions.

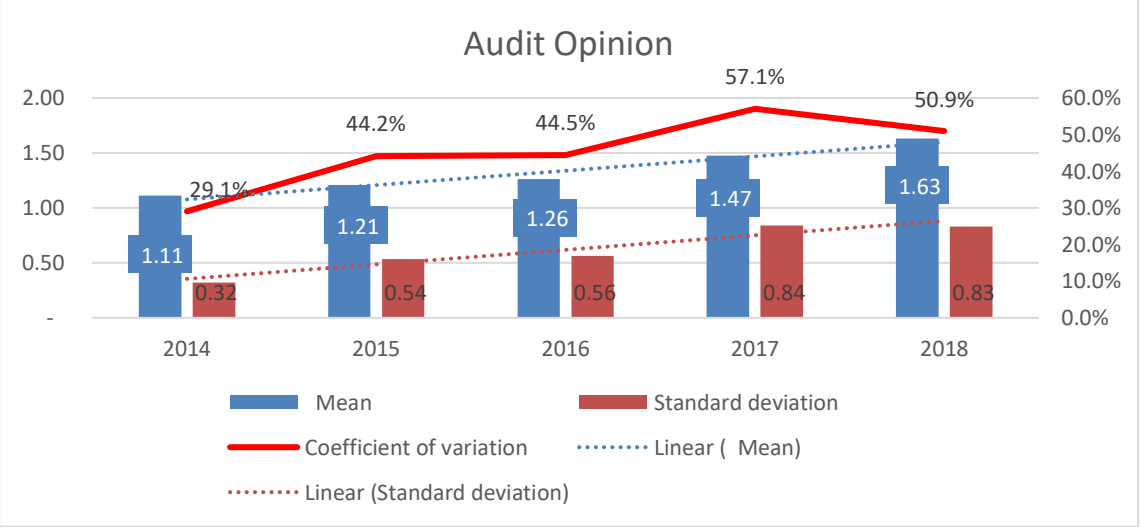

Figure 4: Audit Opinion Summary

The vacancy rate descriptive statistics of the selected SOEs will be presented next, with the summary provided in Table 3.

5.3.1.5. Descriptive statistics: Vacancy rate

Table 3 summarises the descriptive statistics for the vacancy rate of the state-owned enterprises (SOEs) under study between 2014 and 2018. The mean vacancy rate reflects a fluctuating trend during this period. As shown in Table 3, the mean vacancy rate increased steadily from 31.8% in 2014 to 92.0% in 2015 and then decreased to 42.5% in 2016 and 18.8% in 2017. Finally, the mean increased to 29.3% in 2018. Based on the measured standard deviation and the mean figures, the degree of variation in the vacancy rate among SOEs was estimated to be above 196% in 2014 and 152% in 2018. This indicates significant variability in the rate at which the different SOEs hire new employees during the study period.

Table 3: Vacancy rate summary

YEAR	N	MEAN	SD	MIN	MAX
2014	19	.3181319	.6306589	0	2.881113
2015	19	.919995	2.775964	.031	12.22025
2016	19	.4251579	1.168865	.036	5.240457
2017	19	.1876238	.1653969	.035	.7502066
2018	19	.2926482	.4391464	.031	1.985733

The descriptive statistics for the restatement of annual financial statements will be presented in the next section, which includes the mean and standard deviation.

5.3.1.6. Descriptive statistics: Re-statement of annual financial statements

Figure 5 presents an overview of the restatement of the financial statements' descriptive statistics of the selected SOEs from 2014 to 2018. The data reveals that there was an upward trend in the mean of the restatement of the annual financial statement in 2016, which was followed by a sharp

decline up to 2018. The degree of variation in the restatement of annual financial statement variable among the SOEs ranged between 87.6% in 2014 and 199.0% in 2018, as indicated by the measured standard deviation. This suggests a larger range of variability between the SOEs that restate their financials and those that do not.

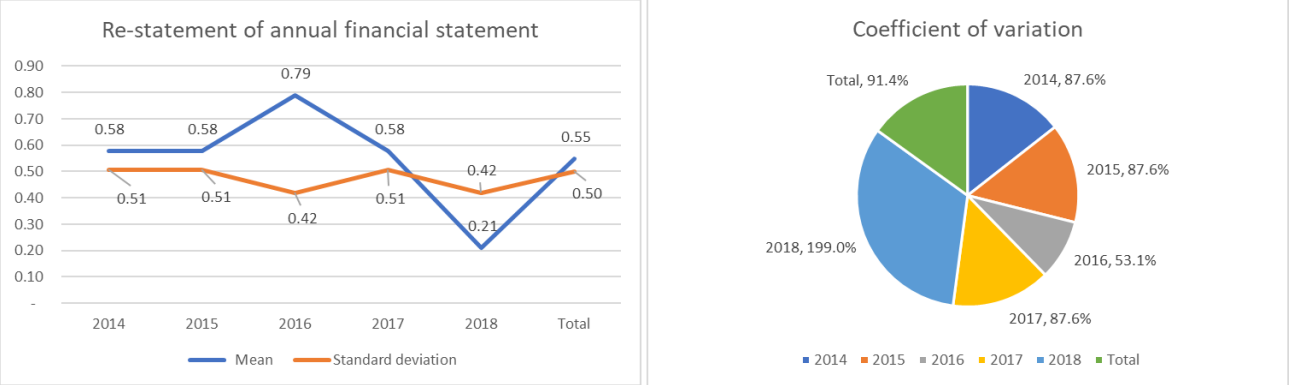

Figure 5: Re-statement of the annual financial statements

The above section presented the descriptive statistics that relate to the governance instruments. The following section will document the descriptive statistics for SOEs performance.

5.3.2. Descriptive Statistics for SOEs performance

The SOEs were assessed using accounting metrics to evaluate their performance. The descriptive statistics of SOE performance, presented in Tables 4 to 6, include net profit, return on equity and return on assets.

5.3.2.1. Descriptive Statistics: Net profit

Net profit was used as one of the measures of SOEs performance, and Table 4 presents a summary of the numerical descriptive statistics for it. The table shows that in 2014, 2017, and 2018, SOEs had a positive return in terms of net profit, as indicated by the positive mean. However, this was not the case for 2015 and 2016, during which the SOEs recorded net losses.

Table 4: Net profit as a measure of corporate performance

Year	N	Mean	Standard deviation	Min	Max
2014	19	3457614.9	11564160	-2559000	50259537
2015	19	-4748414.9	19172538	-8220308	5302000
2016	19	-1461075.5	8399541.7	-3550006	5151000
2017	19	798210.26	2385044	-5455000	6049414
2018	19	1961946.3	8128400.7	-5424000	34244397

5.3.2.2. Descriptive Statistics: Return on Assets (ROA)

Table 5 summarises the descriptive statistics for Return on Assets (ROA) between 2014 and 2018.

Table 5: Descriptive Statistics of Return on Assets

year	N	mean	sd	min	max
2014	19	.0113314	.0616803	-.1587272	.1046294
2015	19	-.0506256	.1469338	-.4602243	.0761814
2016	19	-.0151953	.0622267	-.1676918	.0737062
2017	19	-.0265523	.1022178	-.3424357	.0802098
2018	19	-.0379525	.1072938	-.4055024	.0624802
Total	95	-.0237989	.1012978	-.4602243	.1046294

The table indicates that SOEs achieved a positive mean of 0.01 in 2014, which shows that they had a positive return in terms of ROA during that period. However, this was not the case from 2015 to 2018, when the SOEs recorded negative ROA. The last descriptive statistics to be presented is the return on assets in the next section.

5.3.2.3. Descriptive Statistics: Return on Equity (ROE)

Table 6 presents descriptive statistics for Return on Equity (ROE) for a period from 2014 to 2018. The table shows that SOEs managed to have a positive return on equity during the years 2014 and 2016, as evidenced by the positive mean of ROE. However, this was not the case for the year 2015, as well as 2017 and 2018, where the companies recorded negative ROE. This negative ROE highlights that shareholders of SOEs in South Africa were losing their investments during this period.

Table 6: Descriptive Statistics for number of Return on Equity (ROE)

year	N	mean	sd	min	max
2014	19	.0570384	.2660124	-.7233949	.7257516
2015	19	-.118807	.5551136	-2.063182	.6100833
2016	19	.0084822	1.564327	-4.756906	4.594696
2017	19	-.02466	.3910623	-1.094787	.864216
2018	19	-.1950098	.5493177	-1.918743	.408403
Total	95	-.0545912	.7978374	-4.756906	4.594696

5.4. Correlation Analysis of corporate governance instruments and SOEs performance

The connection between performance-related variables and corporate governance instruments is explored in this section. To determine the statistical association between these variables, correlation analysis is utilised. The primary objective was to determine whether there is an association between SOE performance, the dependent variable, and corporate governance instruments, the independent variables. The numerical scale ranges from -1 to +1, with negative relationships falling between -1 and 0 and positive relationships between 0 and 1. A correlation coefficient of 0 indicates no linear relationship between two continuous variables. A P-value of 0.05 or less indicates a statistically significant relationship.

Table 7 below displays the correlation among various performance metrics of SOEs, including net profit, ROE, ROA, total assets, and shareholder equity. The results reveal a negative

correlation between net profit and the vacancy rate (r=-0.67). In contrast, the vacancy rate has a significant positive correlation with total assets and shareholder equity, with r=0.48 and r=0.59, respectively. The audit opinion has an insignificant relationship with performance variables such as net profit and ROE. However, it is moderately negatively and positively linked with ROA (r=-0.27) and vacancy rate (r=0.28), respectively. There is no significant relationship that has been established between number of audit committee members and the performance variables.

Additionally, the analysis establishes an insignificant negative association between the board size and performance variables such as total assets, net profit, and shareholder equity. Similarly, the restatement of financials was negatively related to performance, but it was insignificant.

In conclusion, the results suggest that an increase in the vacancy rate could lead to a decline in performance, as measured by net profit. At the same time, total assets and shareholder equity may experience an increase. Further analysis is required as correlation does not imply causation. Analysis such as regression analysis, is necessary to establish the association between dependent and independent variables.

Table 7: Pairwise correlation between performance variables and independent Variables

		1	2	3	4	5	6	7	8	9	10	11
(1)net profit	Pearson Correlation	1										
(2)total assets	Pearson Correlation	0.03	1									
(3) shareholders' equity	Pearson Correlation	0.02	0.94**	1								
(4) Restatement of financials	Pearson Correlation	-0.14	-0.13	-0.12	1							
(5) Audit Opinion	Pearson Correlation	-0.02	-0.08	-0.13	0.09	1						
(6) vacancy rate	Pearson Correlation	-0.67*	0.48*	0.59*	-0.23	0.28	1					
(7) number of audit committee members	Pearson Correlation	-0.15	0.04	0.021	-0.12	-0.027	0.07	1				
(8) number of board members	Pearson Correlation	-0.07	-0.04	-0.076	-0.20	0.06	0.25	0.43**	1			
(9) number of board meetings	Pearson Correlation	-0.06	0.12	0.001	-0.11	0.10	-0.21	-0.22*	0.06	1		
(10) ROA	Pearson Correlation	0.35**	0.13	0.153	-0.01	-0.27**	-0.32	0.09	0.06	-0.12	1	
(11) ROE	Pearson Correlation	0.07	0.03	0.034	-0.08	-0.11	-0.28	0.25*	0.14	-0.07	0.12	1

After having presented the correlation results, regression analysis will be conducted in the next section. However, a diagnostic test will first be performed before regression analysis.

5.5. Regression Analysis

In this study, the relationship between the dependent variable net profit, total assets and shareholders' equity, ROE and ROA, and various governance-related independent variables was investigated. To test the hypotheses, regression analysis was used to draw inferential statistics and utilised the results to reach conclusions. No sole reliance was placed on correlation analysis as evidence for the relationship between variables because it has limitations in discerning causality between variables. The presence of a positive association between two variables does not always suggest a causal relationship, wherein one variable may be attributed as the source of changes in another. Therefore, a multiple regression model was utilised in the analytical approach. The diagnostic tests that were performed prior to conducting the panel regression will be presented in the next section.

5.5.1. Diagnostic tests before panel regression

Prior to conducting the regression analysis, diagnostic tests will be performed for unit root, multicollinearity, normality, and Hausman model specification. The first test to be conducted is the unit root test in the next section.

5.5.1.1. Unit root test

Meta-analysis combines findings from several research sources to test a similar hypothesis and reach a conclusion. Fisher-type meta-analysis uses independent test p-values to calculate an overall test statistic. In panel data unit-root testing, the present study evaluates each panel's series individually and then combines the p-values to determine if the panel series has a unit root. Based on Augmented Dickey-Fuller tests, the fisher-type unit-root test was utilised.

Table 5.10 below presents the results after applying the first difference (or lag 1) to all variables. The p-values of all variables are less than 0.05, indicating no presence of a unit root problem. This study examines the presence of a unit root in all variables using a sample of SOEs. The results from all four tests provide substantial evidence to reject the null hypothesis that all panels have unit roots. Therefore, based on the research results, we reject this hypothesis. For instance, when examining the stationary test for net profit, we observe test statistics for variables P, Z, L*,

and Pm, corresponding p-values in the adjacent column. The null hypothesis is rejected as all values are less than 0.05 at a statistical significance threshold of 5%

Table 8: Unit root test results after first differencing

Variable	P-Value	Conclusion
Net profit	0.013	No Unit Root Problem
Total assets	0.023	
Shareholders' equity	0.001	
Restatement of financials	0.013	
Audit Opinion	0.001	
Vacancy rate	0.042	
Number of audit committee members	0.031	
Number of board members	0.001	
Number of board meetings	0.003	
ROA	0.006	
ROE	0.007	

The unit root test revealed no unit root problem, indicating that the regression analysis can be performed using the collected data. The following diagnostic test performed is a multicollinearity test, which is covered in the following section.

5.5.1.2. Multicollinearity test

The research objective was to determine the association between dependent and independent variables. The correlation matrix was used to determine the degree of association between variables, as discussed in section 5.4. Analysing variations in the dependent variable derived correlations as independent variables change. However, the correlation matrix may not reveal all instances of multicollinearity. Therefore, a multicollinearity diagnostic test was performed as a further step before conducting multiple regression analysis. The multicollinearity test determines whether certain variables are too closely related, which may prevent the independent effect from being established on the dependent variable. In this study, the following diagnostic hypothesis was made, and the results are presented in Table 9:

Hypothesis:

H_0: There is no severe multicollinearity.

H_1: There is severe multicollinearity.

Table 9: Multi-collinearity test results

	Restatement of financials	Audit Opinion	Vacancy rate	Number of audit committee members	Number of board members	Number of board meetings
Restatement of financials	1					
Audit Opinion	0.09	1				
Vacancy rate	-0.23	0.28	1			
Number of audit committee members	-0.12	-0.03	0.07	1		
Number of board members	-0.20	0.06	0.25	0.43	1	
Number of board meetings	-0.11	0.10	-0.21	-0.22	0.06	1

Table 9 presents the multi collinearity test results for SOEs. The correlation coefficients presented appear to be low. Thus, there is no severe multicollinearity between the corporate governance instrument utilised in the study, namely number of audit committee members, audit opinion, restatement of financials, vacancy rate, number of board members and number of board meetings. As a result, the null hypothesis (H_0) is not rejected and resolved that there is no severe multicollinearity between SOE performance measures. When running a regression analysis on all SOEs, it is reasonable to include all the variables such as net profit, total assets, return on equity (ROE), shareholder equity and return on assets (ROA) as performance measures. These governance variables will have a distinct effect on the performance of SOEs. Normal distribution test results will be presented in the next session.

5.5.1.3. Normal distribution test

It is essential to verify the normality of data before performing regression analysis. Hence, a diagnostic test is required to evaluate the normality of the data before conducting various statistical analyses. Table 10 displays the descriptive data pertinent to normality.

Table 10: Test for normal distribution of data

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
Net profit	95	0.0000	0.0000	73.47	0.0000
Total assets	95	0.0000	0.0001	39.32	0.0000
Shareholders' equity	95	0.0000	0.0000	51.33	0.0000
Restatement of financials	95	0.4222	0.0000	30.1	0.0000
Audit Opinion	94	0.0000	0.0007	32.80	0.0000
vacancy rate	95	0.0000	0.0000	.	0.0000
number of audit committee members	90	0.8454	0.2242	1.56	0.0000
number of board members	93	0.1434	0.9341	2.21	0.0000
number of board meetings	88	0.0000	0.0002	27.67	0.0000
ROA	95	0.0000	0.0000	45.46	0.0000
ROE	95	0.0794	0.0000	34.43	0.0000

The study used Table 10 to evaluate the normal distribution of data through Kurtosis and Skewness measures. The results support the conclusion that the kurtosis P-values for all variables except two are statistically significant at a 5% significance level. Probability of Chi^2 has been used to override the probability of Kurtosis as it is statistically significant across all variables. Therefore, it can be deduced that all variables under study exhibit a normal distribution. The next test to be presented before conducting a regression analysis is the Hausman model specification test.

5.5.1.4. A Hausman model specification test

To choose the appropriate model for a study, a decision must be made between using a fixed effect model or a random effect model. To make the decision, a Hausman specification diagnostic test was conducted. This test determines the panel regression model specification by testing the null hypothesis that no difference exists between the fixed effect model and the random effect model. The alternative hypothesis is that these two models are different. The random effect model will be used when the p-value is greater than 0.05, while the fixed effect model will be used when the p-value is less than 0.05. Table 11 below, presents the results from a Hausman model specification test.

Table 11: Hausman test on regression model

Relationship investigated	Chi-Sq. Statistic	Prob.	The chosen panel regression model
Impact of corporate governance instruments on total assets	1,18	0.978	Random effect model
Impact of corporate governance instruments on shareholder equity	3.39	0.758	Random effect model
Impact of corporate governance instruments on net profit	77.84	0.000	Fixed effect model
Impact of corporate governance instruments on return on equity	5.32	0.5036	Random effect model
Impact of corporate governance instruments on return on assets	1.98	0.9212	Random effect model

After conducting the Hausman Chi-square test on the dependent variables of net profit, ROE, ROA, total assets, and shareholder equity of selected SOEs, it was established that the probability values for four were greater than 0.05. The results indicate that the random effect model is appropriate for four variables to estimate all the regression on the impact of different independent variables on the performance of SOEs from 2014 to 2018.

The Hausman Chi-square section concludes the diagnostic tests on the data for the study. Overall, the diagnostic tests indicate that the regression analysis assumptions have been met. The regression analysis results of the impact of corporate governance instruments on SOEs performance is presented in the next section.

5.6. Regression Analysis on the impact of corporate governance instruments on SOEs performance.

The research used a suitable model to examine how audit opinion, vacancy rate, audit committee size, frequency of board meetings, board size and re-statement of financial statements affect the performance of specific SOEs. The Hausman panel regression model specification test was conducted to validate the accuracy of the outcomes derived from Random effect panel regression analysis. These findings will serve as a foundation to determine whether the hypotheses proposed in the introductory section are correct. Regression analysis on the impact of

governance instruments on net profit, ROE, ROA, total assets and shareholders' equity will be presented in the next section.

5.6.1. Regression Analysis on the effect of corporate governance instruments on net profit.

After a diagnostic investigation, a regression analysis was conducted to establish how corporate governance instruments affect net profit. The study revealed that two factors, namely financial restatements, and vacancy rate, had a significant impact on the outcome. Surprisingly, the effect of these factors on company performance was found to be conflicting. Table 12 shows the effect of various corporate governance measures on net profit, which reflects business performance.

The results presented in Table 12 indicate a significant negative effect of the vacancy rate on net profit with a t value of -28.14. The findings suggest that the vacancy rate is statistically significant at a 5% significance level. This means that increasing the rate at which companies hire new employees will lead to a decrease in net profit. The R-squared value (R2=72%) is moderately high, indicating reasonable explanatory capacity. The SOE's performance is impacted negatively by number of board members and meetings although at a statistically insignificant level. In contrast, the restatement of financial statements, audit opinion, and the number of audit committee members have a statistically insignificant positive impact on SOE performance.

Table 12: Analysis of the effect of corporate governance instruments on net profit

net profit	Coef.	Robust Std. Err.	t	P>t	[95% Conf.	Interval]
Restatement of financials	741709.1	1037300	0.72	0.484	-437578	2920996
Audit Opinion	468057.1	407150.7	1.15	0.265	-387334.9	1323449
Number of audit committee members	467416.8	552507.1	0.85	0.409	-693357.5	1628191
Number of board members	-48332.75	297905.6	-0.16	0.873	-674209.3	577543.8
Number of board meetings	-78455.03	87090.73	-0.90	0.380	-261425.9	104515.8
Vacancy rate	-1.00e+07	355766.5	-28.14	0.000	-1.08e+07	-9265464
Constant	2431712	1858231	1.31	0.207	-1472287	6335712

* R-square=0.72

5.6.2. Regression Analysis on the effect of corporate governance on Return of Equity

After conducting a diagnostic inquiry, a regression analysis was carried out to investigate the impact of corporate governance on return on equity. The results indicate that vacancy rates are a significant determinant at a 1% confidence level. The analysis concludes that the vacancy rate has a significant negative impact on corporate performance. A business's performance can be effectively done by analysing its return on equity. Therefore, Table 13 presents the impact of various corporate governance initiatives on return on equity.

As per the results presented in Table 13, although the vacancy rate is significant at one per cent levels, it has a negative effect on ROE. The vacancy rate has a negative coefficient and is statistically significant at a one per cent significance level. Hence, as companies hire new personnel at an increased rate, the ROE will decrease. Most corporate governance instruments, such as number of board meetings, restatement of financial results and audit opinion have statistically insignificant negative coefficients.

Table 13: Regression results of the effect of corporate governance instruments on ROE

ROE	**Coef.**	Standard Error **Std. Err.**	**Z**	**P>z**	**[95% Conf.**	**Interval]**
Restatement of financials	-.0296764	.1482341	-0.20	0.841	-.3202098	.2608571
Audit Opinion	-.1337702	.1218613	-1.10	0.272	-.3726139	.1050736
Number of audit committee members	.1141799	.1203156	0.95	0.343	-.1216343	.3499941
Number of board members	.0170814	.0364687	0.47	0.640	-.054396	.0885588
Number of board meetings	-.0038763	.0337206	-0.11	0.908	-.0699675	.0622148
Vacancy rate	-.0412683	.0146781	-2.81	0.005	-.0700368	-.0124998
Constant	-.5240983	.6641744	-0.79	0.430	-1.825856	.7776596

*** R-square=0.1027**

5.6.3. Regression analysis of the impact of corporate governance instruments on Return on Assets

The study found that the vacancy rate and audit opinion have a significant negative impact on

ROA as presented in table 14 below, while the number of audit committee members has an insignificant positive impact, the remaining governance instruments were found to have an insignificant impact on ROA. Therefore, the overall effect of corporate governance instruments on performance is mixed, with some instruments having a negative impact and others having a positive impact.

Table 14: Regression analysis of the effect of corporate governance instruments on ROA

ROA	Coef.	Robust Std. Err.	z	P>z
Re-statement of financials	.0017978	.011983	0.15	0.881
Audit Opinion	-.0476858	.0158498	-3.01	0.003
Number of audit committee members	.0035033	.003758	0.93	0.351
Number of board members	-.0006547	.0046283	-0.14	0.888
Number of board meetings	.0000235	.0013125	0.02	0.986
Vacancy rate	-.0218661	.010731	-2.04	0.042
_cons	.0394043	.0445321	0.88	0.376

* R-square=0.24

5.6.4. Regression Analysis on the effect of corporate governance on total assets

After conducting the necessary diagnostic tests, a regression analysis was performed. The results indicated that total assets should be considered as a measure of performance. Table 15 displays the impact of different corporate governance mechanisms on total assets.

After conducting a regression analysis, it was discovered that several factors, such as restating financial statements, audit opinions, vacancy rate, and number of board meetings, had insignificant impacts on the total assets of SOEs. The analysis also found a low R-squared value, which indicates that these variables have no explanatory capacity. The study shows that the number of audit committee meetings had a statistically significant relationship with total assets that was positive. Thus, when the number of audit committees increases, the total assets are expected to increase.

Table 15: Analysis of the impact of corporate governance instruments on total assets

Total assets	Coef.	Robust Std. Err.	z	P>z
Restatement of financials	-.0144141	.0413776	-0.35	0.728
Audit Opinion	.0375831	.0619733	0.61	0.544
Number of audit committee members	.0269726	.0110534	2.44	0.015
Number of board members	-.0194618	.0118201	-1.65	0.100
Number of board meetings	-.0065921	.0085871	-0.77	0.443
Vacancy rate	-.0048779	.0050501	-0.97	0.334
Constant	17.11482	.4406825	38.84	0.000

* R-square=0.18

5.6.5. Regression Analysis on the impact of corporate governance instruments on shareholder equity.

The diagnostic analysis was followed by a regression analysis, which helped determine preliminary performance measurements, including shareholders equity. Table 16 shows the impact of corporate governance on shareholder equity.

Table 16: Analysis of the impact of firm performance on Shareholder equity

Shareholders' equity	Coef.	Robust Std. Err.	Z	P>z
Restatement of financials	-1081336	2585428	-0.42	0.676
Audit Opinion	2094144	3999037	0.52	0.601
Number of audit committee members	1730543	1101477	1.57	0.116
Number of board members	-1511436	835631.4	-1.81	0.070
Number of board meetings	-48662.32	240284.6	-0.20	0.840
Vacancy rate	1563820	432480.1	3.62	0.000
Constant	5.06e+07	2.49e+07	2.04	0.042

* R-square=0.28

Based on the results presented, the vacancy rate had a statistically significant impact on shareholders' equity. It has been found that a rise in the vacancy rate of 1% will positively impact

the total shareholders equity by R1 563 820. It has been observed that the size of the board, exhibits statistical significance, although at a significance level of 10%. Increasing the size of the board by one member will result in a decrease of R46 662.32 in the amount of shareholder equity. Furthermore, it was found that there was no significant correlation between the audit opinion, the number of board meetings as well as restatement of financials with performance-related measures. The statistical insignificance of the coefficients of these variables was observed.

The results reveal that the variables in question have no explanatory capacity, as the R-squared value is low (0.28). However, the vacancy rate has a significant positive correlation with performance-related measures.

5.7. Chapter Five Summary

The results show that for the selected SOEs, increasing the vacancy rate decreases the return on equity, while increasing the number of audit committees improves the return on equity (ROE), although at an insignificant level. Restatement of financials, audit opinion, vacancy rate, and board size do not affect SOE's total assets as a preliminary performance indicator. However, the analysis revealed that the number of audit committee members had a positive coefficient, indicating a significant positive impact on total asset value. The results indicates that the vacancy rate significantly reduces net profit, which means that as corporations employ fewer people, net profit decreases.

The study also found a significant coefficient of determination on pair-wise correlation with performance-related measures for the vacancy rate, indicating that it has a significant negative impact on net profit. A negative coefficient means that adding one vacancy reduces net profit. Audit opinion, board meeting, and financial restatement factors were statistically insignificant. The correlation for audit opinion is negative, whereas the coefficients for the number of board meetings are insignificant.

Moderately high R-squared (R^2) indicates acceptable explanatory ability. At 10% importance, financial restatements affect performance. The results suggest that corporate governance tools,

including audit opinion, board meetings and board size have a statistically negligible negative influence on SOE's performance.

At the 1% significance level, the vacancy rate is statistically significant. However, a negative coefficient means a 1% rise in vacancy rate would reduce the return on equity by 4.1%. This implies that ROE will decrease when firms continue to employ fewer people. Most corporate governance instruments, such as board size, board meetings, and financial restatement, have statistically negligible negative coefficients. Corporate governance instruments, being the vacancy rate and audit opinion, have the most significant negative impact on return on assets. Insignificantly, audit committee size affected ROA positively. The number of board members insignificantly negatively impacts ROA. The number of board members and number of board meetings has little effect on ROA. Cooperative governance measures like vacancy rate and audit opinion affect performance differently.

CHAPTER 6: DISCUSSION OF RESULTS

6.1. Introduction

The results were presented in the preceding chapter based on the data analysis conducted for this study. The focus in this chapter, is on discussing the results, considering the hypotheses raised in Chapter 3. The chapter also provides research-based findings and examines other literature to confirm or refute the current research ideas. The research questions and hypotheses are used as the chapter's relevant sub-titles, which include literary insights to support the researcher's conclusions. The impact that the board size has on the SOE's performance will be discussed in the next section.

6.2. Research Question 1: What is the impact of number of board members on the performance of the SOEs?

After analysing the relationship between the number of board members and the performance of state-run companies (also known as SOEs), a critical perspective was gained on how the number of board members affects the profitability of these SOEs. Here are the most important findings and their ramifications:

As a part of the evaluation, the first step was examining the trajectory of board size in SOEs. The results showed that over the past few years, there has been a consistent decrease in the number of board members serving in these enterprises. This observation reflects the variations in board sizes across the organisations and raises concerns about how the board size could impact the companies' performance.

A correlation analysis was conducted to investigate the association between corporate governance instruments and the SOE's performance. The study primarily focused on the association between performance represented by shareholders equity and the number of board members. The study findings indicate that there is not statistically significant or positive

association between these variables. Therefore, it can be concluded, that there is no direct relationship between the number of board members and the equity held by shareholders in SOEs.

Regression analysis to determine the impact of number of board members on SOE's performance was conducted and presented in chapter 5. The findings of this investigation provided several vital realisations. The results of the unit test indicated that the p-value linked with board size was less than 0.05, which provides evidence to reject the null hypothesis. In contrast to what was initially assumed, this demonstrates that the number of board members does have a statistically significant impact on SOEs.

The number of board members at SOEs had an insignificant negative impact on the total assets of those organisations. The total assets of a firm are sometimes regarded as a preliminary indicator of the performance of the company. The fact that the number of board members has a negative influence, although insignificant, shows that larger boards may be related to a decreasing total asset.

It was discovered that the number of board members have a statistically insignificant impact on the shareholders equity. Given that there is an insignificant correlation between the number of board members and the equity held by shareholders, it appears that the number of board members does not have a significant impact on shareholders' equity as a corporate governance instrument.

Similarly, the analysis indicated that the number of board members had a statistically insignificant negative effect on SOE's performance, as assessed by net profits. This indicate that an increase in the number of board members might not automatically result in an increase in net profit for these SOEs.

In addition, the results show that the number of board members had a negative impact on ROA while having a positive impact on ROE of the SOEs, although both were statistically insignificant. This points to the possibility that larger boards in SOEs may not be favourable to the achievement of a higher return on the asset while, on the other hand, contributing towards improving the return

on equity even though both will be at an insignificant level.

The investigation also referred to research conducted by Kyere and Ausloos (2021) and Abang'a et al. (2022), both of which came to different conclusions on the impact of independent board members and board size on the success of companies. These contrasting references highlight the importance of continuing research in this area so that more definitive conclusions can be reached.

Finally, Anderson et al. (2004) was brought up since their study revealed that board size influences a firm's financial performance through lower borrowing costs. This is because larger boards are believed to provide more effective monitoring than smaller boards. This realisation highlights the multidimensional nature of the relationship between the number of board members and the company's performance.

In conclusion, this study offers a nuanced perspective on the function that the number board members play in determining the performance of state-owned enterprises by looking at the data from multiple angles. There are mixed results on the impact that the number of board members have on the SOE's performance, with ROE being the only performance indicator affected positively, although statistically insignificantly. In contrast, the rest of the performance measures were impacted negatively. These findings highlight the need for additional research to have a deeper comprehension of the complex dynamics of number of board members and its effects on SOE performance.

6.3. Research question 2: What is the impact of number of board committee meetings on the performance of SOEs?

Results reveal an analysis of board committee meetings and the impact that these meetings have on the performance of the SOEs. A descriptive statistics analysis of the number of board meetings reveals that the trend fluctuates annually. This finding is supported by the number of board meetings analysed, as presented in Figure 3. This unpredictability in the number of board meetings could be caused by various circumstances, such as changes in leadership, shifting

conditions in the market, or different business goals.

A regression analysis was conducted to determine the extent to which the overall performance of SOEs is influenced by the frequency of board meetings. The study found that there was a negative association, albeit one that was statistically insignificant, between the number of board meetings and total assets. Therefore, increasing the number of board meetings that SOEs hold did not have a substantial impact on the total assets held by those organisations. In a similar vein, the coefficients that were related to the number of board meetings and shareholders' equity were statistically insignificant. This indicates that alterations to the frequency of board meetings did not have a significant influence on the amount of equity held by shareholders.

It was also concluded that the number of board meetings had a detrimental influence on the SOE's, as assessed by net profits, but the difference was not statistically significant. It would appear from this that the frequency of board meetings does not have a substantial impact on the SOE's net profit.

The influence that the board size has on the ROE and ROA was analysed. An increase in board meetings was found to have an insignificant negative and positive influence on ROE and ROA, respectively. This shows that frequent board meetings are related to lower ROE, which may imply possible inefficiencies in management. On the other hand, this suggests that regularly having board meetings was associated with increasing ROA, although statistically insignificant.

The above findings are partly backed by Abang'a et al. (2022), who concluded that the frequency of the board meetings positively impacts the firm's performance. In addition, the finding by Hossain and Oon (2022) that the having board meetings frequently in Indonesia positively impacted the firm's performance partly supports the results of the current study, as ROA was found to have been impacted positively by the frequency of board meetings. However, Hossain and Oon (2022) also concluded that in the case of Germany, the frequency of the board meeting impact negatively the firm's performance. This finding partly supports current findings that the frequency of the board meetings negatively impact SOE's performance, which is represented by ROE. The results of these studies provide credence to the hypothesis that ROA can be impacted by the frequency of board meetings. This demonstrates that the results of the current study are consistent with the conclusion of previous studies, which strengthens the validity of the results.

In conclusion, this analysis reveals essential insights into the links between the number of board meetings and the level of performance achieved by SOEs. It seems to imply that the effect of board meetings on the SOE's performance is complicated and varies depending on the type of

financial indicator being considered. These findings affect the governance and decision-making processes carried out within SOEs. As a result, significant consideration needs to be given to the frequency of board meetings and the composition of board members to maximise SOE's performance. In addition, the study emphasises the significance of expanding on previously conducted research to better our comprehension of the dynamics at play here.

6.4. Research question 3: What is the impact of the number of the audit committee members on the performance of the SEOs?

The study's descriptive statistics on the number of audit committee members who participated offer valuable insights into the patterns and relationships among several variables. Additionally, the regression analysis determined the significance (or lack thereof) of the association between the number of audit committee members and performance variables.

The results show that there have been discernible shifts in the composition of audit committees during the research period. There is a trend in the years 2014 and 2015 that is heading upward, which suggests a rise in the size of audit committees during that period. Nevertheless, there is a negative trend from 2016 to 2017, which indicates a decline in the number of committee members. It was observed that this declining trend began to reverse in 2018, with the number of audit committee members rising again. These trends in the number of audit committee members may represent a more significant amount of variability in how the committees are constituted, leading to the impact or lack thereof on the performance of the SOEs.

The research involved the use of correlation analysis to determine the nature of the association that exists between corporate governance instruments, in particular, the size of the audit committee and performance indicators. The findings suggest that there is a strong positive relationship between the number of audit committee members and ROE. This finding is particularly noteworthy. This suggests that increasing the number of board members serving on an audit committee relates to improving an entity's performance, as measured by ROE.

In addition, regression analysis was carried out as part of the research to determine how the composition of the audit committee relates to the overall efficiency of the SOEs. The regression findings show that the number of audit committee members affects the major performance measures. There is a correlation between the number of audit committee members and the amount of total assets, which it was established to be positive. On the other hand, the number of

audit committee members have a negative effect on the SOE's performance, as measured by net profits. Nevertheless, this effect is statistically negligible. In addition, it has been discovered that audit opinion has a positive impact on ROE. Furthermore, the number of audit committee members has been found to have a negligible impact on ROA.

To contextualise the findings, the study makes use of previous research, such as that conducted by Al-Okaily and Naueihed (2020) as well as Kyere and Ausloos (2021). Although the conclusions of this study are somewhat consistent with those of earlier studies, which suggested that the frequency of audit committee meetings affected financial performance in the United Kingdom, the findings of this study offer a fresh viewpoint. It underlines that the number of audit committee members has a beneficial impact on all the tested performance variables, with the impact on total assets showing a statistically significant result. This is one of the key takeaways from the report.

In conclusion, descriptive statistics, correlation analysis as well as regression analysis provide insights into the trends in the number of audit committee members, their impact on financial performance, and their link with audit opinions. These analyses were conducted on the data gathered during the research. These findings contribute to our understanding of the complex interplay between corporate governance and performance outcomes while also proposing opportunities for future research. Exploring the intricacies of number of audit committee members and its multiple implications on various financial measures is one of the areas that could benefit from more investigation.

6.5. Research question 4: What is the impact of audit opinion on the performance of the SOEs?

The purpose of this study was to examine the relationship that exists between the firm's performance and the audit opinion expressed. The research utilised descriptive statistical analysis to investigate the patterns that were observed in audit opinions expressed across the organisations that were included in the sample. The findings of the study, which are summarised in Table 5.4, indicated an increasing pattern of audit opinion variability. As a result, it appears that there is a significant amount of variation in the audit opinion that selected SOEs have achieved over the five years. These audit opinion variations can be broken down into four main categories: unqualified opinion, qualified opinion, disclaimer opinion, and adverse opinion (AGSA, 2022).

A correlation analysis was conducted to determine the association between audit opinions and several performance factors. The objective of the research was to establish how audit opinions and corporate performance are related. The analysis found a statistically insignificant negative relationship between the audit opinion obtained by the companies and their performance, as measured by net profit, total assets, and shareholder equity.

A regression analysis was conducted to gain a better understanding of the association between variables. According to the regression analysis results, the audit opinion had a significant negative impact on both the ROA and ROE. In contrast, it had a statistically insignificant positive effect on the SOE's performance as measured by net profits. The negative impact on ROA was highly significant, whereas the negative impact on ROE was not statistically significant.

The conclusions made by Sir et al. (2021) align with these findings, as they also found that audit opinions have a significant impact on the local governments' financial performance. The type of audit opinion that a company receives affects various financial metrics, such as return on assets, return on equity and net profit. In other words, companies with unfavourable audit opinions tend to experience a decrease in their overall financial performance. These findings highlight the importance of audit opinions in assessing the financial health and performance of a company, as this will impact the investment decisions of would-be stakeholders. Businesses, auditors, and policymakers must understand this relationship to make informed decisions.

6.6. Research question 5: What is the impact of vacancy rate on the performance of the SOEs?

This research aimed to conduct a detailed analysis of various factors linked to State-Owned Enterprises (SOEs), including vacancy rates, corporate governance, and overall performance. A detailed description of the most significant findings and studies conducted is provided below:

During the research period, descriptive statistics were utilised to gain a better understanding of the vacancy rate, which revealed a trend of fluctuation. The volatility indicates a significant difference in how various organisations in the dataset recruited new workers. It seems that hiring trends were not consistent and varied among the organisations, which economic conditions, industry-specific factors, or corporate strategy may have influenced. This variability in hiring trends may have been due to changes in economic conditions.

The purpose of the study was to investigate the association between corporate governance instruments and the SOE's performance. The research findings showed a significant correlation between some performance indicators and the number of vacant positions in an organisation. Specifically, the study found that the vacancy rate has a negative impact on net profits, which means that as the rate of unfilled job positions increases, the net profits decrease. This finding highlights the adverse effects of unfilled job positions on the profitability of an organisation. However, the study also found a positive correlation between the vacancy rate and shareholder equity. This implies that a higher vacancy rate is associated with higher shareholder equity, reflected in the positive correlation between the two variables.

A regression analysis was conducted to understand the impact that the vacancy rate has on the overall SOE's performance. The results showed that the coefficient was not statistically significant, which indicate that the vacancy rate did not have a significant negative impact on the overall asset value. Therefore, it can be concluded that variations in the vacancy rate did not have a significant effect on the overall value of the SOE's assets.

The regression analysis showed that a 1% point increase in the vacancy rate has a positive impact on total shareholder equity, indicating that a higher vacancy rate is surprisingly linked to increased shareholder equity. This may be due to cost savings from unfilled positions or a strategic decision to prioritise other areas of the company's finances.

The result from the regression reflects that when a company has a high percentage of vacant positions, it can have a significant and detrimental impact on its net profit. This suggests that the net profit typically decreases while the company keeps these positions vacant. Therefore, when a company has a significant number of vacancies, it may not be able to generate sufficient revenue to cover all its expenses, which has a negative influence on its overall profitability.

Notably, the conclusions of the current study are not in agreement with the findings of Lo et al. (2020), who also reported that job openings had a beneficial impact on the performance of a company. This positive association implies that having available job openings can be considered a beneficial indicator for the performance of a company, possibly indicating growth and expansion. This is because having open job positions positively correlates with having more employees.

In a nutshell, the findings presented in the report shed light on the complex relationship between vacancy rates, corporate governance, and the overall performance of SOEs. The findings illustrate that the influence of the vacancy rate varies across various performance metrics.

6.7. Research question 6: What is the impact of the re-statement of financials on performance on the performance of SOEs?

From both correlation and regression results, the relationship and causal effect between restatement of financials and any of the performance measures is totally rejected. The implication is that there is neither a relationship nor causal effect between restatements of financials on SOE performance. The results reported are not in line with what Qiu et al. (2019) who established that restatement of the financial statements serve as a predictor of possible future misstatement of the financial statements, which may impact profit of the company. The results are also against He et al. (2019) who interestingly put forward the idea that investors react negatively when the financials statement have been re-stated, which results in negative impact on the share and price option volatility. Furthermore, the insignificant results found are totally against Kinney et al. (1989) seminal work who concluded that the impact of the restatement of the financials is negative on average towards the return on shares, more specifically between the period of misstatement and disclosure.

6.8. Summary of Hypothesis

The following is a snap short of results on whether they answer the hypothesis of not.

Hypotheses	Decision
Hypotheses on the impact of number of board members on SOE's performance, H1	
H1ao: The number of board members has significant impact on SOE's Net Profits H1a1: The number of board members has no significant impact on SOE' Net Profits	Reject null
H1bo: The number of board members has significant impact on SOE's Return on Equity H1b1: The number of board members has no significant impact on SOE's Return on Equity	Reject null
H1co: The number of board members has significant impact on SOE's Return on Assets H1c1: The number of board members has no significant impact on SOE's Return on Assets	Reject null
H1do: The number of board members has significant impact on SOE's Total Assets H1d1: The number of board members has no significant impact on SOE's Total Assets	Accept null
H1eo: The number of board members has significant impact on SOE's Shareholder Equity H1e1: The number of board members has no significant impact on SOE's Shareholder Equity	Accept null

Hypotheses on the impact of number of board meetings on SOE's performance, H2	
H2ao: The number of board meetings has significant impact on SOE's Net Profits H2a1: The number of board meetings has no significant impact on SOE's Net Profits	Reject null
H2bo: The number of board meetings has significant impact on SOE's Return on Assets H2b1: The number of board meetings has no significant impact on SOE's Return on Assets	Reject null
H2co: The number of board meetings has significant impact on SOE's Return on Equity H2c1: The number of board meetings has no significant impact on SOE's Return on Equity	Reject null
H2do: The number of board meetings has significant impact on SOE's Total Assets H2d1: The number of board meetings has no significant impact on SOE's Total Assets	Reject null
H2eo: The number of board meetings has significant impact on SOE's Shareholder Equity H2e1: The number of board members has no significant impact on SOE's Shareholder Equity	Reject null
Hypotheses on the impact of audit committee members on SOE's performance, H3	
H3ao: The number of audit committee members has significant impact on SOE's Net Profits H3a1: The number of audit committee members has no significant impact on SOE's Net Profits	Reject null
H3bo: The number of audit committee members has significant impact on SOE's Return on Equity H3b1: The number of audit committee members has no significant impact on SOE's Return on Equity	Accept null*
H3co: The number of audit committee members has significant impact on SOE's Return on Assets H3c1: The number of audit committee members has no significant impact on SOE's ROA	Reject null
H3do: The number of audit committee members has significant impact on SOE's Total Assets H3d1: The number of audit committee members has no significant impact on SOE's Total Assets	Accept null
H3eo: The number of audit committee members has significant impact on SOE's Shareholder Equity H3e1: The number of audit committee members has no significant impact on SOE's Shareholder Equity	Reject null
Hypotheses on the impact of audit opinion on SOE's performance for, H4	
H4ao: Audit opinion has significant impact on SOE's Net Profits H4a1: Audit opinion has no significant impact on SOE's Net Profits	Reject null
H4bo: Audit opinion has significant impact on SOE's Return on Equity H4b1: Audit opinion has no significant impact on SOE's Return on Equity	Reject null
H4co: Audit opinion has significant impact on SOE's Return on Assets H4c1: Audit opinion has no significant impact on SOE's Return on Assets	Accept null
H4do: Audit opinion has significant impact on SOE's Total Assets H4d1: Audit opinion has no significant impact on SOE's Total Assets	Reject null
H4eo: Audit opinion has significant impact on SOE's Shareholder Equity H4e1: Audit opinion has no significant impact on SOE's Shareholder Equity	Reject null

Hypotheses on the impact of vacancy rate on SOE's performance, H5	
H5ao: Vacancy rate has significant impact on SOE's Net Profits H5a1: Vacancy rate has no significant impact on SOE's Net Profits	Accept null
H5bo: Vacancy rate has significant impact on SOE's Return on Equity H5b1: Vacancy rate has no significant impact on SOE's Return on equity	Accept null
H5co: Vacancy rate has significant impact on SOE's Return on Assets H5c1: Vacancy rate has no significant impact on SOE's Return on Assets	Accept null
H5do: Vacancy rate has significant impact on SOE's Total Assets H5d1: Vacancy rate has no significant impact on SOE's Total Assets	Accept null*
H5eo: Vacancy rate has significant impact on SOE's Shareholder Equity H5e1: Vacancy rate has no significant impact on SOE's Shareholder Equity	Accept null
Hypotheses on the impact of restatement of financials on SOE's performance, H6	
H6ao: Restatement of financial has significant impact on SOE's Net Profits H6a1: Restatement of financial has no significant impact on SOE's Net Profits	Reject Null
H6bo: Restatement of financial has significant impact on SOE's Return on Assets H6b1: Restatement of financial has no significant impact on SOEs Return on Assets	Reject null
H6co: Restatement of financial has significant impact on SOE's Return on Equity H6c1: Restatement of financial has no significant impact on SOEs Return on Equity	Reject Null
H6do: Restatement of financial has significant impact on SOE's Total Assets H6d1: Restatement of financial has no significant impact on SOE's Total Asset	Reject Null
H6eo: Restatement of financial has significant impact on SOE's Shareholder Equity H6e1: Restatement of financial has no significant impact on SOE's Shareholder Equity	Reject Null

*Accept null accept based on Pearson correlation only

From the results, the relationship and causal effect is rejected between number of board meetings or restatement of financials and any of the performance measures. The implication is that there is neither a relationship nor causal effect between number of board meetings and SOE's performance nor a relationship between restatements of financial statements and SOE's performance.

The audit opinion was found not related to total assets, shareholder equity, returns on equity and net profits. However, audit opinion was found to be only related to return on assets.

The vacancy rate was found to be related and having a causal effect with all the performance measures though when relating it with total assets the relationship was found to be significant only based on Pearson correlation and not regression. However, it can be said that there is a significant relationship and causal effect between vacancy rate and SOE's performance.

The number of audit committee members was found to be significantly associated to ROE and total assets. However, the relationship between ROE and number of audit committee was solely found to be significant based on correlations results. This means the number of audit committee members would only affect total assets while also having a relationship with ROE.

Finally, the number of board members was found to be significantly related to total assets and shareholder equity. This means that the number of board members have both relationship and effect with either total assets or shareholders.

In summing up, the findings of this research offer important new perspectives on the interrelationships between the number of audit committee members, the percentage of open positions, and the overall performance of SOEs. This study emphasises the necessity for thorough statistical analysis and gives conclusions that may influence future study and decision-making in the context of corporate governance and the performance of the public sector.

6.9. Chapter Six Summary

In the context of the SOEs and their performance metrics, the correlation and regression analysis of the data has produced some significant results and insights. These findings and insights are discussed below.

A significant association was found, according to the findings of the analysis of correlation, between the number of members on the audit committee and the ROE. In other words, there is likely to be an improvement in the performance of SOEs, as measured by ROE, as the size in the membership of the audit committee increases. This improvement is assessed by return on equity. This suggests that having a competent and comprehensive audit committee can contribute positively to the company's overall performance on the financial front.

An investigation of the association between the two variables reveals that there is an inverse relationship between net profits and the vacancy rate. This suggests that a fall in net profits for SOEs is connected with a rise in the vacancy rate at those organisations. However, it is essential to remember that the relationship does not prove that a cause was responsible for the effect. It only suggests a relationship between the two.

An essential realisation is that correlation does not always imply causality. This highlights the significance of doing regression analysis to investigate the possible causal connections between

the number of audit committee members, the vacancy rate, and performance measures.

The regression analysis includes unit root tests, and the p-values of all variables are lower than 0.05. This lends credence to the idea that the variables do not possess any unit roots, which is crucial for statistical analysis because the presence of unit roots might make interpretation more difficult.

It may be deduced from the fact that the kurtosis p-values for all the variables except two are statistically significant at a level of significance of 5%, namely that all of the variables follow a normal distribution. Furthermore, the probability of Chi^2 was used to override the probability of kurtosis, as Chi^2 is statistically significant across all variables. This is necessary for statistical studies, as the assumptions of normal distribution are at the foundation of many statistical procedures.

According to the study's findings, there is a marginally significant inverse association between total assets and the number of board meetings and. Despite the strong negative pairwise correlations found between correlation coefficients and performance-related metrics, the regression analysis demonstrates that the vacancy rate does not have a significant negative impact on the total value of assets.

According to the results of the regression analysis, the number of people serving on the audit committee has a favourable impact on the total assets. This lends credence to the hypothesis that the size of audit committees in SOEs may be related to the overall amount of assets those organisations hold.

The findings are consistent with those of various earlier studies. According to the findings of Singh et al. (2018), for instance, a positive association exists between the size of a company's board of directors and the performance of the company. However, the findings of Bohren and Odegaard (2012), who indicated that the firm's performance diminishes with the size of the board of directors, are contradicted by this study’s findings.

In the context of Kenya, Abang'a et al. (2022) concluded that SOE’s performance is impacted positively by the frequency of board meetings. This finding is in line with the results of the current study about the positive effect of the number of audit committee members.

Al-Okaily and Naueihed (2020) identified a positive and substantive association the audit committee size and firm performance in the setting of non-family enterprises. This finding is consistent with the results of the study regarding audit committee members. The study also acknowledges that the findings are not universally consistent, as shown by the conflicting findings

of Kyere and Ausloos (2021) in the United Kingdom.

The study by Wightman et al. (2022) contributes to a better understanding of vacant positions in the municipalities of South Africa. It illustrates the negative impact that vacancies at both senior and lesser levels can have on the functioning of a municipality, emphasising that the effect varies depending on the nature of the services offered.

In summary, the findings of this research offer critical new perspectives on the interrelationships between the size of audit committees, the percentage of open positions, and the overall performance of SOEs. Findings from this study emphasise the necessity for thorough statistical analysis and give conclusions that may influence future research and decision-making in the context of corporate governance and the performance of the public sector.

CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

7.1. Introduction

The study's objective was to establish the impact that the corporate governance instruments have on SOE's performance. The governance instruments are essential for the efficient operations of the SOEs, and thus plays an essential role in the growth of the economy and contribute towards poverty reduction (Kikeri, 2018; Apriliyanti & Randøy, 2019). The provision of public services and the generation of profit are the two main objectives of the SOEs, although conflicting at times.

The SOEs in South Africa have been facing governance and sustainability challenges with SOEs such as Eskom and SAA as examples of entities that are facing some serious challenges (OECD, 2015; Ballard et al., 2021). The failure of these entities provides evidence that where there is incapacitation of the governance structure, entities experience governance failures (Kessides, 2020). Although the governance structure exists, the SOEs continue to experience failure (Ballard et al., 2021), leading to the need for the current study to establish the impact that corporate governance instruments have on the SOE's.

To determine the impact that the corporate governance instruments have on performance of the SOEs, a sample of 19 SOEs as per Schedule Two of the PFMA was selected using stratified simple random sampling method. The method ensured that the sample represented similar characteristics as they are all listed under major entities, Schedule Two of the PFMA.

The relationship was tested through correlation as well as regression analysis that was conducted on the collected data. The annual report of the selected SOEs were used to obtain data for analysis. Prior to performing regression analysis, diagnostic test was conducted, which concluded that data is normally distributed, and the regression analysis can be conducted.

The results of the regression analysis produced mixed results with some corporate governance instruments having a significant impact on the SOE's performance as discussed in chapter 6. On the other hand, other corporate governance instruments had insignificant impact on the SOE's performance. Overall, the results of the regression analysis indicates that audit opinion has a significant negative impact on both ROE and ROA, which is aligned with the finding by Sir et a. (2021). Furthermore, the results reveal that when there is high vacancy rate, the net profit of the SOE is affected negatively as less resources are available to deliver on the project.

The next section will provide further insights from the results of the study. Recommendations for the academia world and practitioners will be provided. This will be followed by the presentation of the limitations to the study as well as the recommendations for future study. Finally, the concluding remarks appear towards the end of the Chapter.

7.2. Main Findings

7.2.1. Impact of number of board members on SOE's performance

The results from the analysis and discussions indicate that there has been a decline in the number of board members at the SOEs during the period of the study. The impact of board size was positive on ROE while negative on the remainder of the performance indicators that were tested, albeit at a statistically insignificant level. Overall, the study reveals that board size has a statistically insignificant impact on the SOE's performance. This finding is supported by Abang'a et al. (2022) where it was concluded that the performance of the company is not statistically significantly impact by board size. However, the results are contrasted by Kyere and Ausloos (2021) where it was found that independent board members have a statistically significant impact on return on ROE, which is one of the performance indicators.

Given the above results, the Accounting Authority of each of the SOEs should take note of the statistically insignificant impact that the board size has on SOE's performance. Furthermore, SOEs should consider other reasons as well when deciding to increase or reduce the board size.

7.2.2. Impact of number of board meeting on SOEs performance

The results revealed that the number of board meetings held by the selected SOEs varied over the 2014-2018 period. The current study concluded that the frequency of the board meetings impact negatively and positively the ROE and ROA respectively. The results of this study are partly supported by Abang'a et al. (2022) where it was found that the frequency of the board meetings has a positive impact on the firm's performance. Similarly, in the context of Indonesia, Hossain and Oon (2022) concluded that the firm's performance was impacted positively by the ROA, which is one of the performance indicators. On the other hand, Hossain and Oon (2022) in the same study

found that firms' performance in Germany was impacted negatively by the frequency of the number of board meeting.

The mixed results indicate that the SOEs should consider other qualitative factors, such as the topics, including strategy and performance outputs that are discussed at the board meetings, to enhance the impact that the board meetings have on the SOE's performance. Although the impact is statistically insignificant, the Executive Authority (various oversight Ministries) should consider the impact that the required frequency of the board meetings has on the performance of the SOEs when setting the policy framework.

7.2.3. Impact of number of audit committee members on SOEs performance

The result of the study indicates that the number of audit committee members fluctuated over the period of the study, indicating the variability in how the committees were constituted in the selected SOEs. Thus, the audit committees within the SOEs have been constituted with different number of members for each year between 2014 and 2018.

A significant relationship between the number of audit committee members and total assets was established, leading to the conclusion that increasing the number of audit committee members is expected to contribute towards an improvement in an entity's performance as measured by total assets. In addition, the number of audit committee members has a positive impact on the performance of the SOEs measured by the remaining five performance measures as articulated in chapter 5 although at a statistically insignificant level.

Overall, the number of audit committee members have a positive impact on the SOE's performance. The findings are in support of Al-Okaily and Naueihed (2020) who found that the audit committee characteristics including audit committee size is positively related to non-family firms' performance.

Thus, the findings of the study have indicated the importance of the number of the audit committee members as well as its influence on the SOE's performance. The composition of the audit committee within the SOEs should be thoroughly considered before finalisation by the policy makers.

7.2.4. Impact of audit opinion on SOEs performance

The selected SOEs achieved varied audit opinions over the period of the study. The audit opinions expressed by the AGSA are in four broad categories: unqualified opinion, qualified opinion, disclaimer opinion, and adverse opinion.

The result from the regression analysis found that the audit opinion had a statistically significant negative impact on ROA and ROE. This finding has been supported by Sir et al. (2021), where it was concluded that the performance of the municipalities is impacted significantly by the audit opinion.

The finding presents a view that the audit opinion expressed by the AGSA is important to the SOE's performance. These findings are essential to those charged with governance, which include the board as well as management of the SOEs, to ensure that there are policies, control and oversight and procedures in place to ensure that the SOE achieve the positive audit opinion.

7.2.5. Impact of vacancy rate on SOEs performance

The vacancy rate trend was fluctuating among the SOEs over the period of the study period. The factors that impact fluctuation on vacancy rate include but are not limited to economic conditions, industry specific factors or corporate strategy.

The finding indicates that vacancy rates have a significant correlation with the performance of the SOEs, showing that there is an important relationship between the two variables. However, the significant correlation does not necessarily mean that the vacancy rate causes the change in net profit.

The vacancy rate was found to have a statistically significant negative impact on net profit. Thus, when the vacancy rate increases, the net profit decreases. This is possible as the company may not be able to generate sufficient revenue due to lack of resource driven by an increased vacancy rate. Interestingly, the finding by Lo et al. (2020), is not in agreement with the finding of the current study as it was concluded that job vacancy serves as a beneficial indicator, implying growth, and expansion. Thus, the vacancy rate as per Lo et al. (2020) has a positive impact on SOE's

performance.

The finding of the current study should be considered by stakeholders when taking initiatives to improve the performance of the SOEs. The increase in vacancy rate may be one of the factors contributing to the SOEs not meeting their objectives, thus, finding solutions to reduce the rate of vacancy may be essential to the SOE's profitability, success and viability.

7.2.6. Impact of board of restatement of financial statement on SOEs performance

The results from correlation and regression analyses shows that there is no significant relationship or causal impact which the restatement of the financial statement has on the performance of the SOEs. These findings are contrary to the conclusion reached by Qiu et al. (2019) who stated that the restatement of the financial statements serves as a predictor of the future firm's performance, which may impact profitability. On the other hand, He et al. (2019) found that the restatement of the financial statements led to a negative reaction by investors resulting in share price being impacted negatively.

The results of this study indicate that the SOEs should be more concerned about the other corporate governance instruments, as the restatement of the financial statements has insignificant impact on the SOE's performance. The SOEs should still be concerned about restating the financial statements as it still negatively impacts the ROE, although at a statistically insignificant level.

7.3. Recommendations

7.3.1. Practitioners – separate stakeholder group

The findings are essential for stakeholders, which include, the Executive Authority, the Accounting Authority (the board), policymakers, potential shareholders, and parliament which exercises oversight over the performance of public entities. The stakeholders may use the results of the study to improve the policy framework of the SOEs.

The results of the study have been mixed, with some governance instruments impacting the performance positively, while others negatively. The policy makers may need to enhance the existing policies on the size of audit committees as this governance instrument has been determined to impact the performance of the SOEs positively. Furthermore, the management of the SOEs should ensure that the vacancy rate is as low as possible, as a high vacancy rate impacts the performance of the SOEs negatively.

7.3.2. Academic

The study provides a base to improve on from an academic perspective. Some of the corporate governance instruments showed mixed results with regards to the impact on the performance of the SOE. Further study may be necessary to gain insights on the mixed results and possible reasons for the mixed results.

7.4. Limitation of the research

The research was limited to SOEs that are listed in Schedule Two of the PFMA, which inherently excludes other SOEs that are listed in other schedules of the PFMA. Furthermore, the sample selected was limited to SOEs only and excludes, private, public, and listed companies.

The data period for the study was limited to the period from 2014-2018 financial years. The study relied on secondary data, which were generated from the annual reports of the SOEs. Some of financial statements were re-stated in the following financial year. However, the AGSA has audited the financial statements including the re-stated ones.

7.5. Recommendation for future research

Studies for the future should consider extending the period of the study to more than five years as the results might be different owing to different contextual environments. In addition, the sample selected could be expanded to include all the SOEs listed in the schedules of the PFMA or those categorised as Schedule 3A, 3B, 3C or 3d entities that each have different objectives and revenue and borrowing requirements. The current study utilised quantitative aspects only

when evaluating the impact that the corporate governance instruments including audit committee size, board size, amongst other measurable variables. Future studies could combine the qualitative and quantitative aspects to be able to bring other factors that were not considered, such as the experience of the board members, in assessing the impact on the performance of the SOEs.

7.6. Conclusion

The overall objective of the study was to determine the impact that the corporate governance instruments have on SOE's performance in the context of Sout Africa. The study was essential as there has been governance failure in SOEs and mixed results from the previous studies. Furthermore, gaining an understanding of the impact of the instruments will assist policy makers in decision making and policy formulation in future.

This study involved a sample of 19 SOEs listed in Schedule Two of the PFMA. The sample was selected using the stratified sampling method. The SOEs were a target of the study as they are the major SOEs, as categorised by the PFMA.

The literature showed mixed results, with some studies' results indicating that corporate governance instruments have statistically significant positive impacts on entities' performance. On the other hand, other studies show that the entities' performance is impacted negatively by the corporate governance instruments.

The study has also achieved a mixed results with some governance instruments having a negative impact while others show a positive impact at a statistically significant level. However, some of the corporate governance instruments had statistically insignificant positive and negative impacts respectively on the SOE's performance.

The study has revealed that the number of audit committee members, had a significant positive impact on the SOE's performance. On the other hand, audit opinion and vacancy rate had a significant negative impact on the SOE's performance. The shareholder (Government) should utilise the results of the study to shape their policy decisions in influencing the performance of the SOEs.

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Appendix A – Sample of major SOEs as per Schedule 2 of the PFMA

No	Name of Major SOEs
1	Airports Company of South Africa Limited
2	Alexkor Limited
3	Armaments Corporation of South Africa Limited
4	Broadband Infrastructure Company (Pty) Ltd
5	CEF (Pty) Ltd
6	DENEL (Pty) Ltd
7	Development Bank of Southern Africa
8	ESKOM
9	Independent Development Trust
10	Industrial Development Corporation of South Africa Limited
11	Land and Agricultural Development Bank of South Africa
12	South African Airways (Pty) Limited
13	South African Broadcasting Corporation Limited
14	South African Forestry Company Limited
15	South African Nuclear Energy Corporation Limited
16	South African Post Office Limited
17	Telkom SA Limited
18	Trans-Caledon Tunnel Authority
19	Transnet Limited