

**THE IMPACT OF BOARD COMPOSITION ON FINANCIAL PERFORMANCE OF
LISTED CORPORATIONS IN ZAMBIA**

By

David E.M Milupi

**A Dissertation submitted to the University of Zambia in partial fulfillment of the
requirements of the award of the Degree of Master of Business Administration in
Finance**

THE UNIVERSITY OF ZAMBIA

LUSAKA

2023

DECLARATION

I, **DAVID E. M MILUPI**, do hereby declare that this work is my original work achieved through personal reading and research. This work has never been submitted to the University of Zambia or any other University. All sources of data used and literature on related works previously done by others, used in the production of this Dissertation have been duly acknowledged. If any omission has been made, it is not by choice but error.

Signature:.....

DATE.....

COPYRIGHT

All rights reserved. No part of this Dissertation may be reproduced, stored in a retrieval system or transmitted in any form or by any means: electrical, mechanical, photocopying, recording or otherwise without consent of either the author or The University of Zambia.

© David E.M Milupi, 2023

APPROVAL

This Dissertation by **David E.M Milupi** is approved as a fulfilment of the requirements for the award of the degree of Master of Business Administration in Finance.

Examiner 1	Signature	Date
.....

Examiner 2	Signature	Date
.....

Examiner 3	Signature	Date
.....

Chairperson

Board of Examiners	Signature	Date
.....

Supervisor	Signature	Date
.....

ABSTRACT

Corporate Governance can be defined as the directing and controlling of corporations. It became popular after the collapse of several large corporations such as Enron and WorldCom. The collapse of corporations caused depositors to lose their savings, investors to lose their investments worth billions of dollars, and employees to lose jobs. Corporate governance classifies the board into four attributes, namely, board composition, board characteristics, board structure and board process. The objective of this study was to examine whether there is a relationship between board composition (board size, board independence and board gender diversity) and financial performance of listed corporations in Zambia. This research employed a descriptive study. A sample of 5 corporations out of a population of 22 listed on the Lusaka Securities Exchange (LuSE) was selected using the proportional stratified sampling technique. The period of study was from period 2008-2020. The study extracted and analyzed secondary data of annual audited financial statements and reports from respective corporations' websites and African financials website into excel. Stata version 14.2 software was used for statistical and regression analysis. Board composition consists of three independent variables namely, board size (logBS), board independence (BI) and board gender diversity (BGD). The study adopted the random effects and fixed effects models. Results under the fixed effects model, showed a negative and significant relationship between board size and financial performance (PPP) at 0.05, and positive and significant relationship between board independence and financial performance (CR and QR) at 0.01. On the contrary, board independence also showed a negative and significant relationship with financial performance (PPP and DTE) at 0.1 and 0.01 respectively. Board gender diversity had a positive and significant relationship with financial performance (AT) at 0.1. Firm size also had a positive and significant relationship with financial performance (IHP) at 0.01. On the other hand, firm size had a negative and significant relationship with performance (AT, PPP and DTE). Random effects model results revealed a positive and significant relationship between board independence and financial performance (RCP) at 0.05 and Board gender diversity showed a positive and significant relationship with financial performance (GM) at 0.01. Contradictory results showed board gender diversity had a negative and significant relationship with financial performance (RCP) at 0.01. Firm size recorded a positive and significant relationship with financial performance (RCP) at 0.01. Other results showed firm size to have a negative and significant relationship with corporate financial performance (GM) at 0.01. This study indicates that board composition has a significant relationship with financial performance.

Key words: Corporate governance, board composition, board size, board independence, board gender diversity, financial performance, listed corporations.

ACKNOWLEDGEMENT

I am thankful to my family and friends for the support given to me during this research. Above all, I am grateful to God for the good health bestowed upon me for the entire academic period. Last but not the least, I would also like to thank my Supervisor, Dr Chanda Lengwe for the guidance and support which made this work much easier.

TABLE OF CONTENTS

DECLARATION	i
APPROVAL	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xi
LIST OF FIGURES	xii
CHAPTER 1	1
INTRODUCTION	1
1.0 Introduction	1
1.1 Background of Study	1
1.2 Statement of the Problem	5
1.3 Purpose of the research	6
1.4 Research Questions	7
1.5 Research hypothesis (Null)	7
1.6 Research Objectives	7
1.7 Significance of the study	7
1.8 Scope of the study	8
1.9 Limitations of the study	8
CHAPTER 2	9
2.0 LITERATURE REVIEW	9
2.1 Introduction	9
2.2 Historical Overview of the study area.....	10
2.3 Corporate governance concepts	14
2.4 Corporate Governance and Financial Performance	15
2.5 Board composition and financial performance	29
2.6 Board size and financial performance.....	35
2.7 Board independent and financial performance	43
2.8 Board gender diversity and financial performance	47
2.9 Theoretical and Conceptual framework	52
2.9.1 Corporate governance foundation theories	52
2.9.1.1 Agency theory	52
2.9.1.2 Resource dependency theory	53
2.9.1.3 Stakeholder theory	54

2.9.1.4 Shareholder primacy theory	56
2.9.1.5 Transaction cost economics theory	57
2.9.1.6 Stewardship theory	58
2.9.2 Conceptual framework	59
2.9.3 Operational definitions	61
2.9.4 Ethical considerations	61
2.9.5 Identifying gaps of knowledge	62
2.9.6 Statement on how the research will contribute to the knowledge of study	63
CHAPTER 3	64
3.0 METHODOLOGY	64
3.1 Introduction	64
3.2 Data source	64
3.3 Population, sample, and sampling techniques	64
3.4 Research Instrument	65
3.5 Description of variables	65
3.5.1 Dependent variables	66
3.5.1.1 Profitability ratios	66
3.5.1.1.1 Return on capital employed (ROCE)	66
3.5.1.1.2 Return on equity (ROE)	67
3.5.1.1.3 Operating profit margin (OPM)	67
3.5.1.1.4 Asset turnover (AT)	67
3.5.1.1.5 Gross margin (GM)	67
3.5.1.2 Liquidity ratios	68
3.5.1.2.1 Current ratio (CR)	68
3.5.1.2.2 Quick ratio (QR)	68
3.5.1.3 Efficiency ratios	69
3.5.1.3.1 Receivables collection period (RCP)	69
3.5.1.3.2 Inventory holding period (IHP)	69
3.5.1.3.3 Payables payment period (PPP)	70
3.5.1.4 Gearing ratio	70
3.5.1.4.1 Debt to equity (DTE) ratio	70
3.5.1.5 Capital gearing ratios	70
3.5.1.5.1 Leverage (LEV)	71
3.5.2.0 Independent variables	71
3.5.2.1 Board size (log_BS)	71
3.5.2.2 Board independence	72

3.5.2.3 Board gender diversity	72
3.5.3 Control variables	72
3.5.3.1 Firm size.....	72
3.5.4 Multiple Regression Model.....	73
3.5.5 Validity and reliability of data	74
CHAPTER 4	75
4.0 FINDINGS	75
4.1 Introduction.....	75
4.2 Descriptive statistics	75
4.3 Specification Tests	76
4.3.1 Normality test.....	76
4.3.1.1 Graphical Normality Test: Histogram.....	76
4.3.2 Homoscedasticity test	78
4.3.3 Multicollinearity test.....	78
CHAPTER 5	96
DISCUSSION	96
5.0 Introduction.....	96
5.1 Summary of findings.....	96
5.2 CONCLUSION	97
5.2.1 Discussion of results	97
CHAPTER 6	100
CONCLUSION AND RECOMMENDATIONS	100
6.0 Introduction.....	100
6.1 Conclusion	100
6.1.1 Evaluation of findings	100
6.1.1.1 Objective	100
6.1.1.2 Research questions	100
6.1.1.3 Hypothesis (Null).....	100
6.1.1.4 Board size and financial performance.....	100
6.1.1.5 Board independence and financial performance	101
6.1.1.6 Board gender diversity and financial performance	101
6.1.1.7 Board composition and financial performance	101
6.1.1.8 Firm size (control variable) and financial performance.....	101
6.2 Recommendations	101
6.3 Suggestions for future study	102

BIBLIOGRAPHY	103
Appendix A: Work Schedule (2020 to 2021)	115
Appendix B: Research Budget (Zambian Kwacha)	116

LIST OF TABLES

Table 1: A sample of Corporations used in the study.....	63
Table 2 Descriptive Statistics.....	74
Table 3: Matrix of correlation.....	78
Table 5.1 Summary of selected models.....	94
Table 5.2 Summary of findings.....	96

LIST OF FIGURES

Figure 1: Conceptual Framework.....	58
Figure 2: Histogram: Graphical normality test.....	76

CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter provides the background of study, research problem, purpose of the research, research hypothesis, research questions, significance of the study, and scope of the study.

1.1 Background of Study

There was little knowledge about Corporate Governance in Zambia till the start of this century because of the economic structure. In 1964, after gaining independence from British rule, Zambia nationalized all industries which included the copper mining companies in which it obtained majority shareholding. A new form of corporate governance was defined by nationalization, where an independent leader, Dr. Kenneth Kaunda's government created superstructures which supervised, controlled, and directed all state-owned enterprises. For example, all mining activities were controlled by the Zambia Consolidated Copper Mines (ZCCM) whereas all other companies involved finance, commerce, manufacturing, media, and mining activities were controlled by the Zambia Industrial and Mining Corporation (ZIMCO). Corporate controlled structures which were largely family owned as privately-run enterprises were few. For example, an investor called Abe Galuan had a chain of companies which were ran by family members and a few local businessmen as company directors, also controlled much of the land in Lusaka, the capital city of Zambia (Kanyama, 2017).

Economic shake-up

In the early 1990s, soon after the liberalization of the Zambian economy, signs that would shake-up standards of corporate governance emerged. Major economic and political reforms were embarked on by the new government of a former trade unionist Frederick Chiluba after taking power through elections from Kenneth Kaunda. Privatization of close to 300 state-owned enterprises was done. ZCCM and ZIMCO collapsed by the mid-1990s. Signaling total transformation around how companies would be managed, the Lusaka Stock Exchange, now called the Lusaka Securities Exchange was established. To enhance transparency and accountability, new regulatory standards affecting all incorporated companies were introduced. Largely due to poor governance, nine commercial banks closed in a space of five years. The Institute of Directors Zambia (IoD) was then established at the end of the 20th Century (Kanyama, 2017).

Shaping standards

In 1999, high-profile individuals that represented private capital interests during the Kaunda era embraced the IoD immediately it came on the scene. The institute's first president was David Phiri, a respected business leader who sat on several boards. Therefore, in terms of shaping corporate governance standards in Zambia, the IoD was given traction as a respected leader. As a contribution towards good corporate governance, nearly 3,000 directors have been trained by the institute from quasi-government and private-sector institutions. The IoD has developed a good number of competent directors in both the private and public sectors, as stated by the 2016 Report on Corporate Governance in Zambia by the Africa Corporate Governance Network. Regular orientation and training programs for newly inducted directors have always been conducted by the institute (Kanyama, 2017).

State-owned enterprises

The remaining state-owned enterprises have exhibited the most pronounced corporate governance challenges or failures. For example, according to the recent auditor general's reports highlighted gaps in management of entities where 27 institutions had not produced audited financial statements for the financial years up to 31st December 2015. This was against the enabling acts and tenets of good corporate governance. In addition, irregularities and poor corporate governance were mentioned. Poor financial and operational performance, little knowledge concerning corporate governance systems, weak enforcement, unethical behavior, transparency, and unsatisfactory balance in skill sets and representation were among the main issues raised in the report. In promoting corporate governance, the issue of tenure is also critical. Changes of a minister and dissolution of boards have been experienced during every government that has come to power. This problem has been privately discussed between IoD and government authorities (Kanyama, 2017).

Listed companies.

Listed companies also need to improve standards in order to match those practiced internationally, despite the notable improvements in corporate governance practices in the private sector. With a total market capitalization of USD\$5 billion which includes shares worth USD\$2.5 for dual listed Shoprite chain stores, the Lusaka Securities Exchange (LuSE) is relatively small. Many listed companies lag behind their peers on the global market in terms of demands and pressure due to the small size of the LuSE and perceived low spillover effects

of any risks. The LuSE has made efforts to demutualize in order to enhance strong governance culture within its own structure and among listed companies as well as keeping the pace with international standards. Reducing shareholder and broker board representation from eight to two are some of the new measures introduced by LuSE. Summed up in the new LuSE board charter is the motivation of demutualization. The board identifies LuSE's important role in the Zambian economy as a regulatory organization as well as benchmark setter against which listed companies on the exchange will measure their corporate governance practices. Although it is difficult to ascertain the effect of demutualization, it does point to a desire for more transparency. Certain responsibilities, roles, and disclosure requirements for directors may need to be clearly defined by LuSE. The conflict of interest among directors who sit on the LuSE board when they already sit on the board of a subsidiary of a listed company is one of the important issues being informally discussed by the LuSE (Kanyama, 2017).

Looking to the future

With the governance unsurprisingly playing a significant role, there are many factors that will shape the future of corporate governance. The government of Zambia has become more businesslike in the past years, stressing profit as the primary motivation to boards of all state-owned enterprises. Unlike in the past, most of the appointed directors seek greater independence, although an invisible hand remains in the way boards are run. Something that worries many is the creation of Industrial Development Corporation to control, direct and supervise state-owned enterprises and serves as a sharp reminder of previous failures under ZIMCO. However, for entities that have remained under-capitalized and faltering, the government believes this will improve corporate governance. Emerging business links between small and medium enterprises and large multinational corporations are shaping the future of corporate governance. Through things such as mentorship, financing requirements and supply-chain benchmarks, this interaction is leading to the adoption of corporate governance standards. There is an immediate need to strengthen human resource capacities, to continuously review various acts such as the companies act and securities act, increase public awareness and as is under discussion for the IoD to assume greater powers to regulate its members for corporate governance to permeate all sectors (Kanyama, 2017).

In 2005, Zambia's Lusaka Securities and Exchange (LuSE) and Institute of Director Zambia (IoDZ) developed a code of corporate governance for listed companies following the realization of the need for good corporate governance (Lusaka Securities Exchange (LuSE), 2013). This code's principles require all LuSE listed companies to adhere to it on an either comply or explain basis. The code is based on clear guidelines of standards and practices which enhance governance and promote transparency and accountability in public companies (First Wave Media, 2005). This study, therefore, seeks to understand the Impact of Board composition on financial performance of listed corporations in Zambia.

In Zambia, listed Corporations are envisioned to add to the development of the economy. According to the World bank (2016), emerging market countries have growing demand for good corporate governance as these assists' corporations improve performance, access affordable external financing and lower cost of capital with wider goals of developing financial stability and economic growth. Therefore, governance of listed corporations has direct impact on capital markets development and investor protection (The World Bank, 2016).

According to Mpofu, 2013, in 2014, however, their contribution to the Zambian economy was insignificant with evidence of minimal market capitalization of LuSE of about US\$10 billion. Poor financial performance in Zambian corporations have been caused by poor corporate governance practices and structures (Kabaila, 2014; Chungu, 2013). Minority shareholders for Zambia Consolidated Copper Mines – Investment Holding (ZCCM-IH), a listed company have complained of poor corporate governance for example (Udoh, 2013). Similar sentiments are shared by other stakeholders such as Government and employees in other companies. Konkola Copper Mine's (KCM) poor management a Public limited company has denied Zambia of its own resources, leading to failure by the company to meet obligations as they stood at US\$1.6 billion, compared to assets of US\$0.1 billion (Kabaila, 2014). Such a poor performance, Kabaila(2014) says is attributed to the poor state of corporate governance particularly in listed corporations.

Recently, there were weaknesses in the upholding of corporate governance codes of conduct in Zambian public institutions as evidenced by an analysis of the 2021 Auditor general's report by Transparency International of Zambia. The revealed short comings in corporate governance standards are weak taxation systems from the mining sector where Nil returns were falsely declared for mineral royalty tax amounting to K140,585,099. Additionally, there was failure to

collect import taxes on various goods amounting to K1,237,753. Also, there were false claims of value added tax (VAT) amounting to K3,562,136,950. Furthermore, corruption and resource mismanagement through the procurement system were detected. Evidence of this was the over commitment on contract procurement for the sum of K1,375,923,365 under the Ministry of infrastructure, housing, and Urban development for the construction in the newly created districts.

Another one was under the ministry of local government where there was an over commitment of procurement contract without confirmation for the availability of funds. This was in relation to the feeder roads for the sum of K9,433,913,996. Further irregularities were the planned or institutionalized resource management where the Lusaka City Decongestion had a scope of works which included the construction of four (4) flyover bridges at a cost of USD\$20,922,436. A review of the schedule of payments indicated that USD\$40,243,508.84 had been paid against USD\$29,922,436 without justification. This works out to be an excess payment of USD\$10,321,072.84 (K166,357,166) (Tansparent International Zambia, 2022).

The above lapses and scandals are an indication of the importance of implementation of corporate governance standards in the control and management of corporations and many other organizations. According to Zahra and Pearce II (1989), corporate governance has four attributes namely, board composition, board characteristics, board structure and board process. Board composition consists of board size, board independence and board gender diversity. Board characteristics consists of directors' background and board personality. Board process consists of meetings, chief executive officer to board interface, consensus, evaluation, and formality (Zahra & Pearce II, 1989).

This study focusses on Board composition (board size, board independence and board gender diversity) one of the critical attributes of corporate governance. The study examines the relationship between board composition and financial performance of listed corporations in Zambia.

1.2 Statement of the Problem

The statement of the problem being addressed is board composition in relationship to financial performance. Board composition consists of board size, board independence and board gender diversity. This has affected financial performance which has led to the closure of some Zambian

banks for example, Meridien Bank Zambia Limited in May 1995 (Maimbo, 2002) and the recent closure of five branches of Standard Chartered Bank Zambia Limited (Kabamba, 2020).

Board composition is critical in as far as the going concern of a corporation is concerned. The study's examination of whether there is a relationship between board composition (board size, board independence and board gender diversity) and financial performance will enable management gain strategic insight in the planning for their corporations. For instance, management will know what the most desired board composition is to accommodate the needed skills, experience, qualifications, gender diversity, and outside inside director mix for the optimum financial performance of their corporation. An optimum financial performance will stabilize the corporations and prevent unnecessary corporate failures and assure stakeholders that their interests will be protected.

Strengthening of corporate governance attributes particularly board composition (board size, board independence and board gender diversity) would be beneficial to developing economies such as Zambia by stimulating economic activities through attracting investments of capital thereby improving the financial performance of companies. Listed corporations in Zambia are part of a liberalization strategy to bring economic growth and the living standards of the people. Marn and Romuald (2012) and Okpara (2009), economic growth can be spurred on through strong corporate governance structures and practices (Okpara, 2009).

1.3 Purpose of the research

The purpose of this research study is to provide further evidence whether there is relationship between board composition and financial performance. This will be achieved by testing how the agency theory that relates board composition (independent variable) to corporate financial performance (dependent variable), concerning corporations listed on the Lusaka Securities Exchange (LuSE) in Zambia. The independent variables representing board composition will consist of three elements namely; firstly, board size (BS), defined as the total number of members on the board, secondly, board independence (BI) defined as the number of independent non- executive directors divided by the total number of members on the board and thirdly, board gender diversity (BGD), defined as the number of female directors divided by the total number of members on the board (Zahra & Pearce II, 1989). The financial performance will be the dependent variable and is proxied by fourteen variables classified under four types of ratios namely Profitability, Liquidity, Activity or Efficiency and Gearing. Six variables are

identified as Profitability ratios namely, Return on Capital Employed (ROCE), Return on Equity (ROE), Return on Asset (ROA), Operating Profit Margin (OPM), Asset Turnover (AT) and Gross Margin (GM). Two variables are classified under Liquidity ratios namely, Current ratio (CR) and Quick Ratio (QR) while three variables classified as Activity (Efficiency) ratios namely, Receivables Collection Period (RCP), Inventory Holding Period (IHP) and Payables Payment Period (PPP). Three variables are classified under Gearing ratio and as follows, Debt to Equity (DTE) ratio Leverage (LEV) and Interest Cover (IC) (Association of Chartered Certified Accountants (ACCA), 2022). Control variables will be Firm size (FS) defined as the logarithm of total assets (logFS) (Creswell and Creswell, 2018).

1.4 Research Questions

- i) How does board size relate with financial performance?
- ii) How does board independence relate with financial performance?
- iii) How does board gender diversity relate with financial performance?

1.5 Research hypothesis (Null)

- i) Board size has no relationship with financial performance.
- ii) Board independence has no relationship with financial performance.
- iii) Board gender diversity has no relationship with financial performance.

1.6 Research Objectives

- i) To establish whether Board size has a relationship with financial performance.
- ii) To assess whether Board independence has a relationship with financial performance.
- iii) To investigate whether Board gender diversity has a relationship with corporate financial performance.

1.7 Significance of the study

The significance of the study is to establish whether there is a relationship between board composition (board size, board independence and board gender diversity) and financial performance of listed corporations in Zambia. This will enable us to understand what

constitutes appropriate corporate governance attribute such as board composition that will enhance corporate financial performance. The research will also benefit both business and government in solving operational problems. It will also help government make informed decisions for economic policies. It will help solve business and industrial problems concerning operational and planning. For the sake of knowledge, this research will provide intellectual fulfilment. It will also help the author in the partial fulfilment of the master's in business administration degree in finance (Kothari, 2004).

1.8 Scope of the study

This study sought to establish whether there is a relationship between board composition and financial performance for listed corporations in Zambia. The study was limited to the period from 2008 to 2020 and covered five the listed companies during the period. The study used proportional stratified method to select a sample of five corporations. Only listed corporations were selected. This study employed descriptive research including multiple regression and correlation analysis. Secondary data was also be collected from published audited reports and accounts of these corporations. Stata 14.2 software was used for statistical and data analysis. Simple correlation and multiple regression analysis were used to test for relationship between board composition and financial performance.

1.9 Limitations of the study

Limitations of this study is that it did no concern data from governmental organizations, non-governmental organizations or private organizations but narrowly concentrated only on corporations that are listed the Lusaka Securities and Exchange. The data collected did not cover data for certain corporations due to missing data in certain periods. Hence the study only covered balanced data. The data collected might not be that accurate because auditors just express their opinions. The auditors would never declare the financial statements correct. They merely express a true and fair view of the financial statements (BPP Learning Media Ltd, 2017). The next chapters are organized as follows, chapter 2 contains literature review, chapter 3 contains methodology, chapter 4 contains findings, chapter 5 contains discussions and chapter 6 contains conclusion and recommendations.

CHAPTER 2

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter briefly provides a view of a historical overview of the study area, corporate governance concepts, corporate governance and financial performance, board composition and financial performance, board size and financial performance, board independence and financial performance, board gender diversity and financial performance, theoretical framework and conceptual framework, corporate governance foundation theories, agency theory, resource dependency theory, stakeholder theory, shareholder primacy theory, transaction theory,

stewardship theory, conceptual framework, operational definitions, ethical considerations, identifying gaps of knowledge, and statement on how the research will contribute to the knowledge of study.

2.2 Historical Overview of the study area

Board composition, one of the attributes of corporate governance, has attracted a lot of international arguments and discussions (Francis, et al., 2012) and brought out philosophical queries (Kastlunger, et al., 2013). Groups which are diverse get better results than uniform groups. Influencers of value such as transparency, financial governance and competitiveness are highly relied upon by economies of many countries. A lot of world standard setters are concerned about corporations' management and transparency. A study on Zambian corporations by Banda (2013) found the law on corporate governance to be outdated and inadequate. The study emphasized the importance concerning corporations' director' conduct.

To promote corporate governance, which could prevent corporations from collapsing, the legislation needs to be clear and easy to understand. Further recommendations were made for a statutory statement of directors' duties, introduction of provisions for disclosures and transparency regarding financial reporting. In addition, there was need for the update of company's Act cap 388 of the laws of Zambia to bring it in the same area of corporate governance to promote good corporate governance practices and help in preventing the collapse of corporate entities (Banda, 2013). Klein (1998) and Bhagat and Black (2001) support the notion that corporations in evolutionary and developing countries have recognized board composition, a corporate governance characteristic, as important in the performance of corporations.

This study will be based on the Resource Dependency theory, founded by Pfeffer and Salancik (1978). The theory states that the board is a vital connection between the firm and the crucial resources needed in the attainment of superior financial results and firms behave in a manner related to their dependence level upon different resources. Additionally, the study will also be based on the stakeholder theory founded by Freeman (1984). Corporate accountability measures for many investors in a firm is championed by this theory. The final theory on which this study is based is the agency theory. This was developed by Jensen and Meckling in 1976. The agency theory advocates that a relationship exists between the firm's principal (shareholders) and their agents (managers and executives).

The collapse of several large companies in the United Kingdom (UK) and United States of America (USA) has highlighted the importance of good standards of corporate governance. The UK had companies like Polly Peck in 1990 and Maxwell Communications in 1991 while the USA had Enron and WorldCom in 2002. Fresh concerns about the effectiveness of UK corporate governance have been raised more recently during the global banking crisis that began in 2007 and its effects on the UK financial services sector. Further effects were raised in the way senior executive's remuneration packages were determined (Watson and Head, 2016).

The importance of internal controls and the role of financial reporting and accountability, focusing on the market-based process of self-regulation has been traditionally stressed in the UK corporate governance system. In the USA however, the opposite is the case as firms face large amounts of external legislation. In the UK, the issue of corporate governance was first addressed by a committee chaired by Sir Adrian Cadbury in 1992. A voluntary Code of Best Practice which the London Stock Exchange (LSE) subsequently required member companies to comply with was recommended by the Cadbury Report (Cadbury Committee, 1992). Whether or not listed companies complied with the Cadbury Code of Best Practice had to be stated in financial reports and, if not, explain the reasons behind non-compliance. The Code was intended to be a good board practice that was likely to facilitate efficient, effective and entrepreneurial management that can deliver shareholder value of longer term and not a rigid set of rules.

In 1995 and 1998, the 'Combined Code' was produced by the Greenbury Report and Hampel Committee respectively after revision and reinforcement of the Code. Overseen by the London Stock Exchange, which continue to include compliance with the provisions of the code in its listing requirements, the latter established a 'super code' made up of a combination of its recommendations and the findings of the previous two committees.

In 2000 because of the findings of the Turnbull Report (published in September 1999), the Combined Code was further developed with a focus on systems of internal control and the wide-ranging types of significant risk that companies need to control.

The decision to investigate both the effectiveness of non-executive directors (NEDs) and the independence of audit committees in UK companies was made by the British government additionally, following the collapse of Enron and WorldCom in 2002. To deal with the two issues, number of recommendations designed to enhance the independence and effectiveness of NEDs were made by the Higgs Report in 2003. The investigation of how companies could

recruit NEDs with varied background and skills to enhance board effectiveness saw the commissioning of the Tyson Report in 2003. The examination of the role of audit committees was made by the Smith Report while falling short of recommending the periodic rotation of auditors (e.g., every five years), at the same time, the operation and structure of audit committees was authoritatively guided. In July 2003 the Higgs and Smith reports recommendations were incorporated into a Combined Code. Reviews and amendments of the Combined Code has been done five times since 2005 by the Financial Reporting Council (FRC). In September 2014, the current version of the Combined Code (the UK Corporate Governance Code) came in force.

Several recommendations in terms of a company's board of directors, remuneration they receive, their accountability, the audit committee and company's relationship with shareholders including investors were laid out by the UK Combined Corporate Governance Code (the Code). Unlike the UK's 'comply or explain philosophy, the USA's corporate governance approach has been legislation driven. Passing the Sarbanes-Oxley Act (SOX) was the USA's response to the 2002 corporate failures and scandals. The existing financial standards were overhauled and while new ones were created by this far-reaching legislation. An overseer for all auditors (the Public Company Accounting Oversight Board) was created by the Act and established auditor independence to limit conflicts of interest and provision of consulting services to audit clients by audit companies was restricted. For both the accuracy and completeness of their company's financial reports, senior executives are required under section 302 to take personal responsibility. Also introduced is the enhanced reporting requirement for financial transactions and internal controls to assure the accuracy of financial reports and disclosures under section 404 of the Act. Stiff criminal penalties for financial fraud via Corporate and Criminal Fraud Act and the Corporate Fraud Accountability Act backed SOX.

Restoration of confidence in US companies, financial markets and US corporate accounting framework by SOX has been contended by its supporters. Those against SOX have contended that companies have incurred significant compliance costs both in time and money terms through the erosion of the USA's international competitive advantage by introducing an excessive complex regulatory environment into US financial markets. While the benefits are more indirect in nature, compliance costs are direct and easy to quantify.

The question of how the board composition impact on financial performance has arisen in the past eight decades in various disciplines such as finance, economics, management, and sociology. Previous research has contributed to an increasing awareness of the desire to understand well, how boards composition can better their effectiveness as corporate governance attribute by refining board size, board independence and board gender diversity for efficient internal organization and decision making (Zahra & Pearce II, 1989).

Corporate governance attributes such as board composition, board characteristics, board structure and board process are related to corporate financial performance in many ways (Zahra & Pearce II, 1989). Research investigating the relationship between corporate governance attributes and financial performance has been done in both developed and developing countries. This research has been motivated from the importance of corporate governance in the management and control of corporations and organizations. It has been focused on the impact of board composition on financial performance of listed corporations in Zambia.

In developed countries, corporate governance scandals such as WorldCom and Enron in the United States of America (USA) and Parmalat in Italy have caused the emergence of many empirical research studies. Research studies have been contradictory and inconclusive despite many works concerning the relationship between corporate governance attributes and financial performance. Most of the research has been done in Europe, Asia and Australia bringing the challenge of application to developing countries in Africa and Zambia in particular.

Various studies concerning the relationship between Board composition (board size, board independence and board gender diversity) and financial performance were done in the world. In United Kingdom, research was made by Guest (2009), while in Australia, studies were done by Kiel and Nicholson (2003); and Prathen, Hettihewa and Wright (2015). In Pakistan research was conducted by Khan, Kamran and Imran (2020). In Bangladeshi research was done by Nath, Islam, and Saha (2015); and Rahman Saima (2018). In Saudi Arabia, research was conducted by Al-Faryan (2021). Studies from Turkey were done by Topal and Dogan (2014); and Insik and Ince (2016). In Malaysia, studies were done by Johl, Johl and Cooper (2015). In Africa, research studies from Nigeria were conducted by Eyembo (2013), Akpan and Amran (2014), Bebeji, Mohammed and Tanko (2015), Kojala et al (2017), Benvolio and Inronkwe (2022). In Kenya, studies were done by Harbi (2022); and Ongare etal(2015). Studies from South Africa were done by Muchemwa, Padia and Callagham (2016); and Semosa (2012).

In Zambia, research was done by Hanjalika and Mwanza (2022), Mwape (2022), Luputa and Mwanza (2022), Kabwe, Mwanaumo and Chalu (2021), Katemena (2020), Chikuta (2020), Banda (2019), Mumba (2017), Kamboabe (2017), Mwanawasa (2016), Shikaputo, Burton, Dunne (2017), Mulenga (2014), Sikazwe (2014), Shikaputo (2013), Banda (2013), Mulela (2013) and Chule (2006).

Even if there has been headway of research in Zambia on corporate governance, more research on the relationship between board attributes and financial performance much could still be done. There has been noted slow economic growth in economic activities in Zambia. The Bank of Zambia Governor on the television interview of Zambia national broadcasting corporation (ZNBC) in 2020 said that the Zambian annual economic growth was negative three percent (-3%) despite the regulation of capital markets by the Securities and Exchange Commission and Lusaka Securities Exchange. Poor corporate governance attributes such as Board composition has resulted in poor corporate financial performance which have affected the viability of companies (Kabaila,2014; and Chungu, 2013). This has created difficulties to the corporations listed on the Lusaka Securities Exchange. Therefore, the problem of how corporate governance attributes in particular Board composition should be operated to enhance corporate financial performance in listed corporations in Zambia is very important.

Research questions are:

- (i) How does board size relate with corporate financial performance?
- (ii) How does board independence relate with corporate financial performance?
- (iii) How does board gender diversity relate with corporate financial performance?

2.3 Corporate governance concepts

Corporate governance is a term with Greek origins. It comes from the word “Kyberman”, which means to steer, lead, or govern (Ayendele & Isichel, 2013). It is referred to as “gubernare” and “governor” in Latin and French languages respectively. Comprising concepts from law, management, economics and finance, corporate governance is generally a concept of interdisciplinary in nature. A description of sets of relationships among company’s board of directors, its management, its shareholders, its auditors, and other stakeholders is a narrow

definition of corporate governance (Pandya, 2011; Gregory & Simms, 1999). In agreement, Rwegasira (2000) stressed that a concern where structures within which a corporate company or firm receives its basic orientation and direction is called corporate governance. Corporate governance could be seen as a way company owners' control and direct their managers in running their investments. It has been debated by Coleman and Biekpe (2006); and Hickson and Turner (2005) that a broader perspective of corporate governance involves methods by which suppliers of finance control managers. Corporate governance can also be described as the internal government structures of companies and society's concept of the scope of corporate accountability relationship Coleman and Biekpe (2006). Vintilă and Gherghina (2012) have echoed that corporate governance is a process and structure by which the management of company's business and affairs is done for the enhancement of business wealth and accountability with the view of enhancing shareholders' wealth. Thus, Mishra and Bhattacharya (2011) have stated that corporate governance has an objective of achieving shareholder value in the long run while looking after the other stakeholders' interest through the process and structure employed in running the company affairs to increase business prosperity and accountability by management. Nuryama (2012) relates the way the company is directed and controlled as a definition of corporate governance. Malhotra, Poteau and Fritz (2013) argued that the objective of separating ownership from management is the root of corporate governance.

Therefore, from the above debates, the employment of the Agency theory as a theoretical framework has been found as a natural choice by most researchers and scholars on corporate governance (Vintilă & Gherghina, 2012; Yusof & Alhaji, 2012; Gill et al., 2009; Abor and Biekpe, 2007; Alonso-Bonis & Andrés-Alonso, 2007; Rebeiz & Salameh, 2006; Welch, 2003; Lorsch & MacIver, 1989).

2.4 Corporate Governance and Financial Performance

Chulu (2006) examined board-level corporate governance regulations in public companies in Zambia. To enable the collection of evidence and ideas for future recommendations and model formulation, the study used an empirical method. Sample size for the research was 60 companies selected from both listed and unlisted on the Lusaka Stock Exchange. The study's selection criteria were that both primary and secondary data could be easily accessed, the distinct ownership structure and the Zambian economy's strategic importance. The study employed semi-structured questionnaires in its empirical research. Data analysis was conducted

using simple qualitative tools such as descriptive presentations and pie charts. The significance of the study was firstly, in the long run, large companies in Zambia are obliged to achieve higher growth if they practice good corporate governance in their boards than to operate without. Effective board regulations are still very vital because markets with an effective regulatory framework is likely to lower market risk and therefore attract more international capital. However, it should be conceded that there are conflicting views as to the difficulty in proving statistically between board performance and corporate performance. Secondly, the study highlights corporate governance and regulations in developing countries like Zambia and help future researchers who might have general information from developed markets. The findings of the study are that the real problems of Board effectiveness lie in the compromised independence of the board due to the predominant presence of controlling shareholders and not in the separation of ownership and control of public companies. Secondly, it was revealed that issues concerning directors' duties, independence of the board and enforcement are not adequately provided for by the regulatory framework. Finally, findings showed that board effectiveness have been restricted by cultural and political barriers (Chulu, 2006)

A study was conducted by Banda (2013) to investigate the enhancement of corporate governance in Zambia through company Law reform. The study stated that the Company's Act Cap 388 of the laws of Zambia was the legal basis for corporate governance in Zambia. It highlighted the importance of corporate governance which came to prominence due to global corporate scandals giving Enron and Parmalat as examples while Zambia had Meridian Biao as an example. The study sought to establish how adequate the Company law was in as far as corporate governance was concerned. The study's methodology of research was qualitative in nature. It involved desk research as it turned to related books, articles, and scholars' papers to have a deep corporate governance understanding and importance. Furthermore, interviews were conducted with Patents and companies Registry (PACRA) employees such as the Deputy Registrar of companies and others from Institute of Directors. To understand the state of corporate governance and obtaining compliance levels, the interviews were semi-structured and conversational. The study found law on corporate governance to be outdated and inadequately provided for corporate governance. The research emphasized on the importance of legislation concerning corporations' directors' conduct. To promote good corporate governance which prevent corporations from collapsing, the legislation needs to be clear and easy to understand. The study recommended a statutory statement of directors' duties, introduction of provisions for disclosures and transparency regarding financial reporting. The

study further recommended an update of the Company's Act Cap 388 of the laws of Zambia to bring it to world standards in the same area of corporate governance in order to promote good corporate governance practices that help assist in preventing the collapse of corporate entities. (Banda, 2013).

Shikaputo and Chanda (2013) examined the Stakeholder perspectives on corporate governance and accountability for development in Zambia. The study highlighted poor corporate governance in Africa from a larger and diverse stakeholder perspective as having contributed to many African countries in terms of poor economic performance. Corporate governance has been identified by the New Partnership for African Development (NEPAD) as a fundamental factor in Africa's economic freedom. The study narrates of several political and economic reforms that Zambia has witnessed since attaining independence in 1964 where meaningful development has not been achieved. Primary data concerning human behavior, attitudes, values and personal experiences was collected using questionnaires and interviews. The empirical evidence shows that Zambians do realize that to attract the desired economic growth, an efficient corporate governance-oriented country is important. The attainment of this would require accountability, transparency, and disclosures in an effective manner that guarantees actions. The findings show that Zambia's challenges stem from the accountability concept and good corporate governance which promote economic development. Therefore, an increase in understanding the accountability concept and good corporate governance would entail a brighter future for the development of the Zambian economy (Shikaputo, 2013).

Sikazwe (2014) studied corporate governance law applicable to Zambian banks and financial institutions adequately promoting good corporate governance. The study quoted a defined corporate governance as 'the framework of rules, relationships, systems and processes within and by which authority is exercised and controlled in corporation.' From the definition of corporate governance, the study drew an idea of including historical, political, economic, and social (cultural) context when analyzing Zambia's legal framework in relation to corporate governance. Zambian government policies that focused on liberalization of the economy when passed, are made into Zambian laws that influence corporate governance in banks and financial institutions. Examples of such laws are the Banking and Financial Services Act, The Bank of Zambia Act, the Companies Act, now the Banking and Financial Services (corporate governance) guidelines.

The minister of finance is granted overriding powers by the Banking and financial services Act, which is prone to abuse. Political considerations rather than corporate governance principles and ideals are likely to be used by the minister of finance due to the manner of his or her appointment. In formulation, application and enforcement of laws relating to corporate governance, the study has revealed the powerful hand of politics. Exemptions of any bank or financial institution from the application of any or all the provisions of the Banking and Financial Services Act can be authorized by the sweeping powers of the minister of finance. Also, under direct control of the minister of finance is the regulator of Banks and financial institutions, the Bank of Zambia because it must give full effect to the minister's policy directives. At variance with King III is the Zambian politics taking a central role in the formulation, application and enforcement of corporate governance law applicable to Zambian Banks. This is because the King III was established through voluntary work of private individuals under the Institute of Directors.

The South African company laws are influenced by principles from the King Report and code. This is different from the Zambian legal system which influenced by politics in terms of the content of matters relating to corporate governance. The study showed that there was a sign of admission for the inadequacy of the law in promoting good governance among banks and financial institutions when the Bank of Zambia introduced the corporate governance guidelines in 2006. All banks and financial institutions in Zambia apply these guidelines. The content of corporate governance guidelines is in line with the spirit of King III.

The corporate governance law applicable to Zambian banks and financial institutions promote, mention, and identify at least five out of 9 chapters of the King III report. These cover issues concerning boards and directors, ethical leadership, governance of risk and internal audit. The study showed that generally, much more detailed and elaborate in approach to the principles than the Zambian laws, rules and 422 section 130 of the Banking and Financial Services Act chapter 387 of the Laws of Zambia was the King III report. There exists a lack of approach to corporate citizenships, governance of IT, governing stakeholder relationships, disclosure and integrated reporting by the Zambian laws, regulations, and rules applicable to banks and financial institutions. In addition, the principle of compliance with laws is very weak.

Despite the score five out nine not being a bad one, King III report cannot accept the score because of the high standard it has set. Since each principle is of equal significance and together forms a holistic approach to corporate governance, the Zambian laws, rules, and regulations

fail to promote good corporate governance. As envisioned by King III, the several gaps in the corporate governance laws in the application to banks and financial institutions avoid the holistic promotion of good corporate governance. Recommendations made by the study has revealed a serious issue in the formulation, application, and enforcement of the corporate governance laws in relation to banks and financial institutions to be Politics. One critical issue that needs dealing with is the sweeping powers that empowers the minister of finance concerning provision of exemptions to banks and financial institutions pertaining to Banking and Financial Services Act.

An outright repealing of this section is highly recommended. An amendment of the law is recommended if supporters of this section and the sweeping powers of the minister of finance insist that it remains. The amendments would need to specify instances where bank or financial institutions would qualify for exemptions. The study recommended that the reforms be market instead of being driven by regulators or government. The formulation of voluntary aspirational ideals upon which corporate governance in Zambian banks and financial institutions will be operating should be spearheaded by the Bankers Association of Zambia.

The study recommended that concepts of sustainability, triple bottom line, corporate citizenship, integrated reporting and disclosure, stakeholder relations and government IT should be adopted by the principles. To develop their own principles and guidelines for corporate governance, the Zambian banks and financial institutions should be proactive in this regard. The study further recommended that the revised corporate governance coming from the Bankers Association of Zambia should operate side by side with the corporate governance principles. This will activate a unique corporate governance hybrid system representing the best corporate governance systems that Zambian banks and financial institutions could adopt since it is a system also adopted by South Africa and represents global trends in this area (Sikazwe, 2014).

Mulenga (2014) studied the enhancement of transparency in Zambian listed corporations focusing on risk disclosures and risk management. The study outlined the popularity of corporate governance after a collapse of world corporations such as, Lehman Brothers, Enron and WorldCom. Risk management and risk disclosures was identified as a vital factor in corporate governance. The study emphasized on the strategic importance of business risk management to senior management and board of directors.

The examination of whether the framework of corporate governance in Zambia had reacted to trends from the international corporate governance in terms of risk disclosures and risk management was the aim of the study. A further interrogation was done concerning the importance of corporate governance and the items of risk management and risk disclosure in relations to how they improve listed corporations' transparency. The study collected data from main participants by conducting interviews and desk research. Findings showed that corporate governance elements of risk disclosures and risk management were included in the Lusaka Stock corporate governance code (LuSE code) instead of being enshrined as a statutory act in the companies Act.

The study also revealed that in today's volatile corporate environment, risk management and risk disclosure are important for listed corporations for the enhancement of transparency as well as availing corporations' situation to the stakeholders. The study revealed the need for accurate, sufficient, and timely disclosures. The author observed a trend of less emphasis on non-financial risk than financial risk. In conclusion, to keep abreast with reforms on international corporate governance best practices, Zambian policy and law makers need to place emphasis on the importance of regrouping for the revision and update of the LuSE code and the companies Act. (Mulenga, 2014).

Further studies in 2017 by Shikaputo M, Burton B and Dunne T examined the nature and potential of corporate governance in developing countries: Zambian perceptions. The study availed findings concerning perceived role of corporate governance in Zambia. The study looked at a detailed one-on-one series of 24 interviews with Zambians, consultants, academicians, senior business executives, regulators, and trans-national organizations representatives. Findings suggest that although the appreciation of corporate governance is in its early stages in Zambia, the fight against inherent corruption should be dealt with for tangible results to be realized. The study recommends a root-and branch change in terms of attitude and structure and calls for unity of purpose and current malignancy recognition (Shikaputo, et al., 2017).

In 2016, Chipoka Mwanawasa, selecting Zambia as a study case, examined the strengthening of corporate governance regulations and enforcement mechanisms in Africa. The method used for evaluation of enforcement and regulation by internationally recognized corporate governance codes and legislation in internationally recognized corporate governance codes was comparative law. Legislation and corporate governance codes looked at are from the United

Kingdom, United States of America, South Africa and The Organization for Economic Co-operation and Development (OECD).

The objective of the study was to try and answer of measure that work well and what limitations are. This narrows down to finding solutions to economic corporate governance issues suitable for Zambia including but not limited to business culture, fiscal policies, and economic growth. After analyzing the law and the institutional framework around corporate governance in Zambia, findings show weaknesses and inadequacy in the current self-regulatory system. This is in as far as compliance is concerned (Mwanawasa, 2016).

Chanda Kambobe (2017) investigated the causes and effects of weak corporate governance that hinder successful performance of African National Banks and looked at Development Bank of Zambia as a case in point. The study aimed to depict how inside intervention of bank owners(government) could affect bank performance and sustainability. Non-independence of the board and broad and unclear mandates were identified as the two causes of weak governance. Findings of the study showed that during election years, there was an increase in lending which could have been caused undue political influence. The effects of non-independence of board were observed to be reduced profits, funds misallocation and private sector crowding out.

The study found a positive correlation between the African National Development Bank lending and private bank lending, signaling a competitive and not counter cyclical role of African National Development Bank over private banks. This results in crowding out of private banks. Further, loans given out were found to be negatively correlation with Bank's profitability. The findings signal that non-independent boards and wide and broad mandates weaken African National Development Banks corporate governance which have a negative effect on performance preventing effective mandate executions (Kambobe, 2017).

Banda (2019) examined the relationship between corporate governance structures and the performance of listed companies on the Lusaka Stock Exchange in Zambia between 2009 and 2017. Measuring corporate financial performance is important due to many stakeholders of LuSE listed corporations and the need of developing and growing the economy of Zambia. Furthermore, Zambian economic development and growth are central to Zambia's economic policies with the objective of reducing poverty and gender imbalances in income.

The purpose of the study was the adjustment of obtaining corporate governance structure framework to boost financial performance of the listed companies on LUSE. Since there are a lot of stakeholders (government, employees, shareholders, suppliers, customers, banks etc.) who are enthusiastic about corporate governance and financial performance in corporations, the study used the stakeholder theory of corporate governance. A mixed research method approach which entails the gathering and analyzing of secondary and primary, quantitative, and qualitative data was utilized in the study. Using descriptive and inferential statistics on 19 corporations listed on Lusaka Stock Exchange, the study also analyzed 46 self-administered questionnaires.

To provide insight into corporate governance structures, including the relationship between corporate governance. To investigate the relationship between corporate governance structures (board of directors and managerial ownership) and financial performance (proxied by Return on Capital Employed and Tobin's Q), the random effects panel regression model was utilized. To present an overview into corporate governance structures as well as the relationship between corporate governance structures and financial performance, interviews and self-administered questionnaires were conducted.

The study showed that the separation of the chief executive officer and board chairperson roles improved financial performance as highlighted by the self-administered questionnaires. Further, the separation of the chief executive officer and board chairperson roles did not have a statistically significant relationship with financial performance of the chosen corporations listed on the Lusaka Stock Exchange after random effects panel regression tests of Return on capital employed and Tobin's Q. The study also indicated that the majority non-executive directors and number of meetings did not have a statistically significant relationship with financial performance of the chosen listed corporations on the Lusaka Stock Exchange.

It was however shown that there was a positive relationship between the majority non-executive directors and the holding of frequent (quarterly) board meetings and financial performance of the chosen corporations listed on the Lusaka Stock Exchange. There was a statistically significant and positive relationship between a small board of directors (averaging seven board members) and financial performance of the chosen corporations listed on the Lusaka Stock Exchange. In addition, it was revealed that there was a positive relationship of large boards with financial performance by the self-administered questionnaires.

The difference in outcome arises from the debate that insights from major role participants might have been based on the need to comply with the international corporate governance best practices and the Lusaka Stock Exchange Code of Corporate Governance. The results of the study in terms of the separation of CEO and the chairperson of the board and the majority non-executive directors contradict each other. There was no relationship between financial performance, the separation of two roles and the majority non-executive directors when the opinion of major role participants showed the opposite. The difference in outcome originates from the application of corporate governance in Zambia which was new and not-yet fully developed stock market.

There are various ways of relationship between financial performance and board processes namely, the number of board committees, audit and risk committees and internal and external audits. A statistically significant and positive relation between an audit committee and financial performance was revealed following a random panel regression analysis employing Tobin's Q. Furthermore, a positive relationship was revealed between establishment of an audit committee, internal and external audits, and corporate governance structures with the financial performance of listed corporations on the Lusaka Stock Exchange as extracted from major role participants.

However, there no statistically significant relationship between risk committee and financial performance of listed corporations on the Lusaka Stock Exchange after a random effects panel regression analysis. On the other hand, there was a positive relationship between the establishment of a risk committee and financial performance following interviews. Lastly, a positive relationship was revealed between managerial ownership and financial performance because managers align their interests with shareholders' interests as extracted from the self-administered questionnaires and interviews. This mainly implied that the consistent focus on the use of audit committees and internal and external audits could positively increase to financial performance of the listed corporations on the Lusaka Stock Exchange.

The study recommended the following for further research studies, that firstly, there should be approval of the separation of the two roles for chairperson and CEO for the two Lusaka Stock Exchange corporations that did not have the separation. At the same time, the 17 Lusaka Stock Exchange listed corporations that have two roles separated should continue in that manner. Secondly, the board of directors make sure that a larger percentage of non-executive directors' form part of the boards in the corporations listed on the Lusaka Stock Exchange.

Thirdly, there should be facilitation of the holding of recommended four annual board meeting by senior management. Fourthly, the research report should be used by the Securities Exchange Commission for the revision of the Lusaka Stock Exchange Code on Corporate Governance in Zambia. Due to differences in outcomes, the author finally recommended that it was important to investigate the relationship between board size and financial performance (Banda, 2019).

Sydney Chikuta (2020) studied the effect of corporate governance on the financial performance of state-owned enterprises in Zambia. The study used return on assets to measure financial performance whereas board composition, independent committees, board size and firm size were used to measure corporate governance. The study employed quantitative methodology approach which assist in accumulating numerical structure information that allocates it in classes, rank request or units of estimation (Denzin, 2014). The study used questionnaires to randomly select a sample of 165 out of which 125 respondents gave a response.

The study was very satisfactory with a 75% response rate. Descriptive statistics and multiple regression analysis were employed to analyze the data. The study revealed a negative impact of independent committees, board size and board composition on financial performance of State-Owned Enterprises. The reason for give was that State-owned enterprises have an increased spending with respect to their size resulting in reduced finances for SOEs. Additionally, the study revealed that the bigger the size of the company, the higher the standings of its financial performance of State-owned Enterprises.

The research also showed a positive correlation between corporate governance and financial performance of State-owned Enterprises. The results meant that application of excellent corporate governance improves financial performance of state-owned enterprises and vice versa. Recommendations for further future research studies are that to improve financial performance, SOEs need to concentrate on measures to reduce board compositions, independent committees, and board size. Finally, to achieve growth in their financial status, SOEs need to consistently invest in projects that will enable them access huge market shares (Chikuta, 2020).

Katemena (2020) analyzed the role of corporate governance in combating financial corruption in state-owned enterprises in Zambia focusing on Zampost as a case in point. The studies specifically aimed at firstly, exploring the importance of the effectiveness of the board in

fighting corruption. Secondly, the study also looked at the significance of the independence of the board in fighting monetary embezzlement. Thirdly, it sought to explain the importance of the quality of audit committee in combating financial corruption. Fourthly, the study analyzed the modalities of enhancing transparency and accountability at Zampost using internal control systems.

To analyze the collected data the study employed graphs, descriptive statistics, regression, and correlation analyses. The relationship between dependent and independent variables were measured by the regression analysis. All results showed positive relationships. The author observed that financial corruption in state-owned enterprises like the case of Zampost could be curbed by practicing principles of good corporate governance. The study emphasized the importance enhancement of transparency and accountability which leads to increased financial performance and growth because of the fight against corruption in state-owned enterprises.

The identified the appointment of board members in State-owned enterprises on merit as the first recommendation. Secondly, there should be an oath of transparency and accountability by chief executive officers. Thirdly, to have early detection of financial leakages, audits should be done promptly (Katemena, 2020).

Kabwe, Mwanaumo and Chalu (2021) studied the effect of corporate governance attributes on International Financial Reporting Standards (IFRS) compliance. The study involved the analysis of the relationship between the corporate governance attributes and IFRS compliance in Zambian listed corporations. Secondary data of 20 listed companies of audited financial statements and annual reports was collected through content analysis from 2012 to 2018. The study which utilized panel data analysis is called longitudinal.

To select the model for use in running the panel regression analysis, a Hausman test was employed. Results showed that there was a positive statistically insignificant relationship between board size, board independence and IFRS compliance. Also, there was a negative and statistically significant relationship between audit committee independence and IFRS compliance. There is, however, a positive relationship between board members with accounting and auditing experience, the inclusion of women on the board and IFRS compliance.

The narrow focus on listed companies only which could not be generalized to private companies and other public interests in Zambia was the limitation of the study. The study revelations entail that corporate governance attributes which include qualified and experienced Chartered Accountants and women on the board of directors increase IFRS compliance. Therefore, there is need to strengthen the appointment criteria of non-executive directors. Being the first study of its kind in Zambia, it draws its motivation from World Bank (2017) recommendations to study IFRS compliance in Zambia (Kabwe, et al., 2021).

Luputa and Mwanza (2022) examined the ideal corporate governance model for state-owned enterprises in Zambia. The study used a mixed-method approach with qualitative measures. The study utilized the Martin's Heidegger's existential phenomenology as underpinning philosophy and study method. As at 2018, from the 15 SOEs in Zambia which were profitable, only 9 declared dividends. The continued unsatisfactory financial performance from low number of enterprise dividend declarations was attributed to poor corporate governance practices.

In addition, Ministers' interference in operations and appointment of directors have negatively affected management functions. The study lamented that the importance of state-owned enterprises in the contribution to world gross domestic product and provision of quality public service has had little research attention in world literature (Ciolomic & Beleiu, 2020; Grossi et al., 2015). Results showed that good corporate governance structures do not exist in state-owned enterprises.

The foresaid is worsened by the country's complicated legal framework. Determination of Board composition and how they should operate is done by major shareholders. The study also revealed that owners of state-owned enterprises rarely fund them but impose obligations from the public service. The author stated that the study was one of the first corporate governance framework for state-owned enterprises in Zambia (Luputa & Mwanza, 2022).

Mwape (2022) studied the impact of poor corporate governance on effective internal audit at the Road Development Agency (RDA) in Zambia. Good corporate governance structures and mechanisms have not been observed by organizations according to many research studies since the Enron corporation collapse in 2001. Like Enron, the RDA stipulated regulations that guide the governance structures and processes as well as the Institutional internal Audit function. Poor performance and wastage of resources have been because of manipulation of corporate governance principles and guidelines which has negatively affected the institutional internal

audit function. To ascertain the impact of poor corporate governance on the effectiveness of Internal Audit at the RDA, the study employed a cross-sectional descriptive design encompassing quantitative and qualitative methods. The purpose of the study was to assess corporate governance practices and establish whether corporate governance structures and mechanisms were under control, distorted or manipulated leading to difficulties for institutional internal audit.

The study would further find ideas that improve or strengthen corporate governance structures at the RDA and generally, the Road sector. The operational efficiency and effectiveness of institutions and internal audit activities are affected by poor corporate governance practices. This leads to organizations not attaining set objectives. The study showed that making appointments to board and Audit committees outside statute provisions without considering qualifications was one of the contributing factors to poor corporate governance at the RDA.

There was a direct and significant relationship between poor corporate governance and the effectiveness of the internal audit activity at the RDA. Members should be appointed according to statutes considering skills and competences to strengthen the board's supervisory and oversight role (Mwape, 2022).

Hanjalika and Mwanza (2022) studied the assessment of the implementation of corporate governance value in non-governmental organizations (NGOs) in Zambia. The study had three aims namely, the establishment of values for corporate governance in NGOs, the evaluating the process for implementation of corporate governance values in NGOs and determination as to the extent of implementation of corporate governance values in NGOs. The study used a concurrent mixed method research design where the collection of data was achieved through interviews and questionnaires.

Purposive sampling and simple random sampling techniques were employed to pick the respondents. 40 respondents from Habitat for Humanity, Young Women Christian Association and NGOCC was used as the sample size. The study used Statistical Package for Social Science (SPSS) version 20.0 for analysis and interpretation of quantitative data. To determine the relationship between variables, Pearson's correlation coefficient, mean and standard deviation were employed. Thematic analysis was utilized to analyze qualitative data. Results showed that NGOs put into practice many corporate governance values such as transparency, accountability, financial reporting, board existence, good board culture, moral integrity,

workplace safeguards and commitment to business management. The implementation of the values was via established guidelines and policies. The study made further revelations that corporate values like board size, board existence, board culture, financial reporting and accountability was made to a larger extent. Transparency values were implemented to a moderate extent.

The implementation of board tenure values was done to a lesser extent. Results showed that there was a positive relationship between board size, board culture, transparency, financial reporting and accountability, and the implementation of corporate governance in NGOs. The relationship was established after taking a Pearson's correlation test. The study recommended that to enhance the process of implementing corporate governance values, laid down regulatory framework or policies and rules should be reviewed while amendments be made on the dysfunctional rules for the NGOs (Hanjalika & Mwanza, 2022).

Mulela (2013) examined directors' duties and the role of the board in implementing good corporate governance practices in Zambian listed companies. The study stressed the importance of attracting investors in Zambia as an emerging market. To facilitate commercial development and wealth creation, it was critical for companies to practice good corporate governance. Empirical studies have proved that an attraction of high volumes of investment activities were a result of good corporate practices in respective countries that implemented them.

The study emphasized of the motivation to evaluate Zambia's corporate governance practices as having been triggered by numerous corporate failures around the world. To be effective, good corporate governance require certain mechanisms in place. The study analyzed corporate governance mechanisms by looking at board composition, directors' duties, and directors' independence. The study additionally examined how reformation and implementation of the mechanisms was conducted other countries like the United Kingdom and South Africa.

The study interrogates the application of common law directors' duties compared to statutory duties and the self-regulation in as far as compliance corporate governance codes is concerned. Codifying of laws and regulations of the mechanisms was considered as a possibility. Investors are likely to invest elsewhere if a country has no reputation for strong practices of corporate governance. Corporations which observe ethical codes of conduct and good corporate governance perform better than those that do not (Mulela, 2013).

2.5 Board composition and financial performance

Ongare, K'Obonyo, Ogutu and Bosire (2015) studied the effects of board composition on financial performance of listed companies on the Nairobi Securities Exchange. Having studied different board roles in various sectors and because of various variables, mixed results were attained from the study. Some of the main attributes of the board that were linked to company financial performance in developed countries were board size, independent members, and gender diversity.

These however have sadly attracted very little attention of scholars in developing countries. Forty-six companies listed on the Nairobi Securities Exchange in 2011 were considered in the study targeting corporate governance practice in developing countries as well as increasing to the body of knowledge in concerning developed countries. The study used multivariate regression analysis on panel data while financial performance of companies was proxied by Return on Asset, Return on Equity and Dividend Yield.

The study revealed that independent board members to have an insignificant effect on financial performance while gender diversity had a positive and significant effect on financial performance. An inverse relationship was found between board size and financial performance. The results are consistent to a large extent with conceptual and empirical literature on corporate governance with regards to small board size (5 to 7) that is diverse in gender, skill, experience, industrial networks just to mention a few key attributes. Concerning outside directors, the findings in the study seem to contradict the long-held traditional view that considers outside directors to have superior performance to the board (Ongore, et al., 2015).

Rahman and Saima (2018) examined the efficiency of board composition on firm performance of listed Bangladeshi Manufacturing firms. The minds of policy makers and researchers have been driven by inefficiencies of corporate governance mechanisms with a lot of insights in this area. As part of corporate governance mechanism, Board composition plays a very important role in achieving company's goals or objectives and ensure transparency and accountability. Establishing the efficiency of board composition through board size, independence directors and female director on firm performance in listed manufacturing firms of Bangladesh was the objective of the study. 162 firm years were selected in as a sample of the study during the period from 2011 to 2016.

Results of the study revealed that large board was the significant explanatory variable in improving firm performance. Furthermore, the study showed both board independence and female directors had no significant relationship with firm performance. This signaled a weakness of board composition as a corporate governance mechanism. Recommendations of corporate governance code for the reformation of role of independent directors and female directors in terms of cultural and institutional context along as well as effective enforcement were made by the study (Rahman & Saima, 2018)

Naciti (2019) studied corporate governance and board of directors by specifically assessing the effect of board composition on the stability of firm performance. The study looked at board composition key components as board diversity, board independence and CEO duality and sought how they affected social and environmental sustainability components. The study investigated a sample of 362 firms from 46 different countries of the Fortune Global 500 list from 2013 to 2016.

Secondary data was gathered from Sustainalytics and Compustat databases. The study employed system generalized method of moment two step estimator. Results revealed a higher sustainability performance for firms with more diversity on the board and a separation between chair and CEO roles. The study further showed a negative and significant relationship number of independent directors and sustainability performance (Naciti, 2019).

Khan, Kamran and Imran (2020) examined the impact of board composition and ownership structure on firm performance. Secondary data from annual reports and financial statements of each bank and state bank of Pakistan was collected. The period cover was from 2007 to 2016 was gathered where a sample of 20 listed financial firms was collected from the Pakistani Stock Exchange (PSX).

The dependent variable was firm performance and was proxied by Return on Asset and Net Interest Margin while independent variables were Board composition and ownership structure. Control variables were Firm Size, Liquidity, Age and Growth. The results revealed a no impact on firm performance by Board Size, Board Independence, Gender, Inside Ownership, Liquidity and Age. However, it was revealed that Firm Size and Managerial Ownership had a significant impact on firm performance. Furthermore, Growth had a negative impact on firm performance.

Additionally, there was no significant impact on firm performance by Board Independence, Firm Size, Growth and Liquidity. This was contrary to earlier studies which indicated a

significant impact of Board Size and Age on firm performance by Jackling and Johl (2009); and Majumdar (1997). (Khan, et al., 2020)

Harbi (2021) examined the influence of board composition on performance of commercial banks in Kenya. Examination of theories and empirical works was done to achieve the studies' objectives. A targeted population of 42 licensed Kenyan Banks was used in the study. The study collected secondary data of annual reports and financial statements for a period from 2015 to 2019. Data collected from each bank's annual reports were net income, total assets, number of independent directors, total board directors and number of women directors.

Panel data was analyzed while Stata version 14 statistical software was employed to conduct regression and correlation analysis. To establish the relationship between board composition variables, bank size (control variable) and financial performance, the Ordinary Least Square method was employed. Results showed a negative and significant relationship between board independence on financial performance. More results showed a positive and significant relationship between bank size and financial performance.

The study recommended a responsibility be taken up by the National treasury and the CBK for the implementation of corporate governance principles which guaranteed a suitable board composition in compliance of codes of corporate governance. Additional recommendations were made for the enhancement of financial performance by the improvement of board composition and increase of bank size. This was made to commercial bank management, consultants, and management of financial institutions (Harbi, 2021).

Al-Faryan (2021) examined the effect of board composition and managerial pay on Saudi firm performance. The study collected a sample of 169 Saudi listed firms during in the period from 2007 to 2014. For the accountability of endogeneity, the study employed five empirical methodologies and scrutinized board independence and managerial pay (internal governance mechanisms) on firm performance. The empirical results showed an endogenous relationship between board composition and performance. Through the dynamic generalized method of moments estimation strong evidence revealed that board composition has a positive relationship with return on assets.

Furthermore, results showed that poor past performance has a negative impact on the current level of performance. Other results indicated a positive relationship between board composition, stock returns and Tobin's Q after employing the difference-in-difference

approach. A positive relationship between managerial pay and firm performance was also revealed by the findings. However, a smaller positive relationship and a decrease in significant levels was revealed when endogeneity was considered.

Therefore, in Saudi Arabia, pay for-performance is important, and that government does not simply control firms. The results imply that policy makers and investors could evaluate corporate governance arrangements and highlight changes that could be made to achieve their economic objectives like vision 2030. The study showed the importance of endogeneity and therefore contributed to literature. (Al-Faryan, 2021).

Benvolio and Ironkwe (2022) studied the relationship between board composition and firm performance of quoted commercial banks in Nigeria. From various variables of board composition and firm market value, data of all fourteen Nigerian quoted banks were collected from annual financial reports from 2011 – 2021. In analyzing the data, study employed Panel stationarity test, Lagrange multiplier test, lag length selection criterion, Ordinary least square analysis, descriptive statistics, Hausman specification test, and likelihood ratio test.

Explaining an estimation of 85.1% of the total variation, the results show empirically a significant relationship between board composition and firm performance. Having revealed that board composition has contributed significantly to firm performance, the study recommended a strong and compulsory corporate governance structure to be put in place to ensure majority independent members on the board of directors both directly and indirectly (Benvolio & Ironkwe, 2022).

Muchemwa, Padia and Callaghan (2016) studied board composition, board size and financial performance, covering 338 corporations of South African listed corporations on the Johannesburg stock exchange (JSE) for a period of seven years from 2006 to 2012. Apart from literature on corporate governance, the study was based two theories namely, agency theory and resource dependency theory which predicted board composition measured as the ratio of non-executive to executive board members and the number of directors on a corporation's board to be positively related the corporate performance.

Therefore, the study tested the predictions of theories and probed the empirical relationships between the variables in a developing country, South Africa. The study used secondary data from published annual reports of the Johannesburg Stock Exchange as its main source. To ensure reliability, the study utilized secondary data of audited published annual reports from

websites of individual corporations (Bryman & Bell,2007). Ordinary Least Squares (OLS) model was used in the study for analysis purposes.

To improve internal validity, the study used regression model's many diagnostic tests such as normality, heteroscedasticity, and multicollinearity. To ensure enough data on corporate financial reporting and performance, the study assumed that the total number of corporations contained in the sample was adequate. It is further assumed that the corporations reported their information truthfully and candidly because incorrect data would negatively affect findings of study. Findings indicate an insignificant relationship between board size and financial performance (proxied by Tobin's q and return on equity). Contrary to these findings, board size was positively related with another financial performance (ROA) (Muchemwa, et al., 2016).

Johl, Johl and Cooper (2015) studied the impact of board characteristics and corporate performance of 700 Malaysian public listed corporations on the Bursa Malaysia by market capitalization for 2009. The study used secondary data which was gathered from 2009 annual reports and the OSIRIS database. Ordinary least square regression was used in the analysis of relationships between variables. Corporations with incomplete data were excluded from the study. Ordinary least square regression was used in the study to analyze the relationship between variable and assess the level of significant of the relationship.

Corporate performance was the only dependent variable used proxied by Return on Assets (an accounting-based performance measurements). Unlike in the United States where capital market-based measurements are used as additional proxies for corporate performance due to developed capital markets, the study did not use this measure because the Malaysian capital markets are not yet fully developed as they still encounter a lot of volatility.

Therefore, it was not considered appropriate to employ the market-based measurement as an additional measurement of corporate performance because it would have yielded inaccurate performance results. Board characteristics were used as independent variables proxied by board independence, board meeting, board size and accounting expertise of board members. Results reveal that board independence has no effect on corporate performance, at the same time, board size and board accounting /financial expertise have a positive relationship with corporate performance (Johl, et al., 2015).

Waturukha (2013) examined the relationship between board composition and financial performance of listed firms at the Nairobi Securities Exchange. Establishing the relationship between board composition and financial performance of listed firms at the Nairobi Securities Exchange was the main objective of the study. The study investigated board size, gender diversity, board independence, and CEO duality and the way they affect financial performance of firms listed on the Nairobi Securities and Exchange.

Return on asset (ROA) was used as a measure of firm performance. Data analysis was conducted by utilizing multiple linear regression model and descriptive research design was adopted. All the firms quoted on the Nairobi Stock Exchange were considered as part of the study population covering the period from January 2008 to December 2012. Employing documentary information from the Nairobi Securities and Exchange Notebook, data secondary data was collected for the period 2008 to 2012.

Results revealed that there was a positive relationship between board independence, board size and CEO duality and financial performance of companies listed on the NSE. On the other hand, gender diversity and the proportion of executive directors were found to negatively affect financial performance of NSE listed companies (Waturukha, 2013).

Pratheepkanth, Hettihewa and Wright (2015) investigated the correlation between board attributes and corporate performance in a sample of 100 out of 200 Australian listed corporations on the Australian Securities Exchange (ASX) and 100 out of 289 Sri Lankan listed corporations on the Colombo Stock Exchange (CSE) for the full year of 2012. Random sampling method was employed to select the sample (Saunders, et al., 2009).

The respective sample sizes were in accordance with the sample selection methods and guidelines. The study used secondary data collected from published financial statements and other sources. Additionally, to generate descriptive statistics and regression analysis, version 21.0 of SPSS software was used as a statistical tool. Two corporate performance measures used in the study were Return on Asset and Return on Equity.

The use of Return on Assets measurements was based on corporate governance literature (Dehaene, et al., 2001; Leung, et al., 2014; Chen 2014) and those for Return on Equity was based on the previous studies (Krivogorsky, 2006; Bachiller, et al., 2014). The two dependent variables that measured corporate performance were Return on Asset and Return on Equity

while the three independent variables that measured board structure were board size, female ratio and directors, experience. Results reveal that larger boards of Australia seem to have a strong and significant influence on corporate performance than Sri Lanka's relatively smaller boards. (Pratheepkanth, et al., 2015).

2.6 Board size and financial performance

The empirical study of the relationship between board size and financial performance was pioneered by Yermack (1996). Proof in harmony with theories that small boards of directors are more efficient, market valuation was proxied by Tobin's Q, a negative association between board size and firm value was yielded. Fixed effects model was used from panel data in a sample size of 452 large United States industrial corporations for the period from 1984 to 1991.

Various controls of company size, alternative corporate government structures, growth opportunities, inside stock ownership and industry membership were displayed in the results. Corporations of small boards further revealed advantageous values for financial ratios and come up with powerful Chief executive officer (CEO) performance motivation from reimbursement and intimidating remark of redundancy. Results show a negative and significant relationship between board size and financial performance (Yermack, 1996).

Vaidya (2019) examined the relationship between board size and firm performance. the study highlighted how corporate governance has received much attention through studies concerning the impact of board size on performance. Its aim was to assess whether board size had influence on firm's financial performance. Board related issues is one of the most important factors that account for firm's performance. To generate best results for an organization, a board (group of people) puts efforts as one unit.

The study compiled data sets of annual reports and financial statements of sampled companies which were downloaded from respective company websites. The study period was from 2018 to 2019 for BSE 100 companies. Financial performance was measured by return on assets (ROA), profit before interest and tax (PBIT), return on equity (ROE), earnings per share (EPS), dividend per share (DPS) and Tobin's Q. Results revealed that board size has no significant impact on firm performance (Vaidya, 2019).

Qadorah and Fadzil (2018) studied the relationships between board of directors' characteristics namely, board size and CEO duality and firm performance from listed firms in Jordan. The study sample consisted of 64 firms and divided into 10 sub-sectors covered industrial firms

listed on the Amman Stock Exchange for the period of 2013. The study used secondary data of annual reports.

To test the hypothesis and examine the relationship between board of directors' characteristics and firm performance, multi regression analysis was utilized. Return on assets (ROA) was used as a firm performance measurement. The study highlighted the limited studies in developing countries like Jordan on corporate governance and limitation in scope. Results revealed that board size was positively and significantly related to ROA.

However, CEO duality was negatively and significantly related to ROA. The results were an indication of the role corporate governance plays in enhancing firm performance and reduction of agency conflict. Additionally, the study recommended that for the enhancement of quality of financial reports, Jordan regulatory bodies needed to increase the effectiveness of corporate governance in industrial Jordan firms. Lastly, the study recommended for more research openings to not only Jordan but also other countries with literature lacking in the area (Qadorah & Fadzil, 2018).

Kalsie and Shrivastav (2016) studied the relationship between board size and firm performance on the New York Stock Exchange and utilized a Panel data approach. The study highlighted the existence of previous literature having been based on different corporate governance theories. The positive effect of board size on performance is supported by agency and resource dependency theories, while the smaller boards are supported by the stewardship theory and argues that large board size negatively impacts the firm performance.

The study was for a five-year period was from 2008 to 2012 and used panel data of 145 non-financial companies listed on the New York Stock Exchange CNX corresponding to 16 industries. Tobin's Q, the market-to-book value ratio (MBVR) and return on assets (ROA) were used as financial performance measures. To achieve the study objectives, fixed effects model, random effects model and feasible generalized least square (FGLS) were applied. The study results revealed that board size had a positive and significant impact on the firm performance (Kalsie & Shrivastav, 2016).

Nguyen et al. (2016) examined board size and firm value in Australia. The study period was from 2001 to 2011 and sampled firms from Australia. Strong evidence of negative relationship was found by the study. The study found large board size were related to CEO compensation, which is sensitive to firm size, but not sensitive to firm performance.

The study highlighted that a firm with a large board had lower operation performance and higher operating costs as an incentive to accumulate assets. The study found that board size effect was stronger in small firms. The results might be an explanation on earlier studies which found board size to have little impact on firm value due to their focus on larger Australian firms (Nguyen, et al., 2016).

Akpan and Amran (2014) scrutinized the relationship between board characteristics and corporate performance from 2010 – 2012 for 90 listed corporations on the Nigerian stock exchange in Nigeria. A quantitative research approach was used in the study, while secondary data was gathered from full financial statements and annual reports. The study uses descriptive for mean and standard deviation value purposes.

Correlation analysis was used to determine the relationship between variables while multiple regression analysis was used to establish the level of significance in the relationship between variables. The 90 corporations used in the data were selected using a simple random sampling technique. To ensure an inclusion of all sectors in the study ten sectors were chosen namely, financial institutions, services, oil and gas, natural resource, industrial goods, information and technology, health services, construction and real estate, consumer goods and services, conglomerate, and agriculture and agro allied.

Board characteristics, proxied by independent variables used in the study are board size, board equity, gender diversity, board age, board education, and board independence. The only dependent variable was corporate performance and was proxied by turnover. Results have revealed a positive and significant relationship between board size and board education and corporate performance. At the same time, no relationship was established between board age, board independence and board equity. A negative and significant relationship was also detected between board women and turnover. (Akpan & Amran, 2014).

Topal and Dogan (2014) examined the impact of board size on financial performance of 136 Turkish manufacturing corporations from 2002-2012 from a section of Borsa Istanbul (BIST). Developed by Beck-Katz (1995), the robust estimator was employed for empirical analysis because it is robust and can deal with heteroskedasticity and autocorrelation or correlation between units. The data used was divided into nine sub-sectors namely, food, beverage and

tobacco, textile, clothing and leather, wood products and furniture, paper and paper products, printing and publishing, chemicals, petroleum, rubber and plastic products, stone and earth industry, key metal industry, metallic items, machinery and equipment manufacturing and other manufacturing industries.

The study used descriptive statistics and correlation analysis to show relationship between dependent and independent variables. Stata 13 software was also used to analyze data. Dependent variables used in the study were return on assets, return on equity, Tobin's q and Z Altman. Basic independent variables were board size, and duality while firm size, level of liabilities and firm age were used as control variables. Results reveals a positive relationship between board size and financial performance (with Tobin's q and return on equity as surrogates).

Increase in decision-making process's effectiveness of corporation was part of the reasons given. Putting corporations' interest before self-interests along by the executives along with board size increase was also stated as another reason. Suggesting that an increase in return on asset would also increase board size and decrease financial failure. However, no relationship was established between board size and financial performance (proxied by Tobin's q and return on equity) (Topal & Dogan, 2014).

Malik, Wan, Ahmad, Naseem, and Rehman (2014) using a pareto approach, studied the reverse relationship between board size and corporate performance for 14 Pakistani commercial banks listed on the local Karachi stock exchange from 2008-2012. The significance is the selected period was in conformity with corporate governance code drafting and implementation. The sample selection was made from state owned, private and Islamic banks. The study used secondary data which was sourced from published annual financial reports.

Descriptive statistics, correlation analysis and various linear regression models were used to establish the significance and relationships between dependent and independent variables. The dependent variable was Bank performance proxied by return on equity, return on asset and earnings per share. Corporate governance variables were the independent variables proxied by board size, size of audit committee, number of shareholders and number of meetings held.

It is debated in many studies that corporations with small board size are rewarded in terms of financial performance in developed countries. Results in the study however indicated that corporations with large board size are rewarded for in terms of corporate performance in developing countries like Pakistan (Finkelstein & Hambrick, 1996; Johnson, Daily, & Ellstrand, 1996; Zahra & Pearce, 1989).

The study's arguments that corporations with large board size increase corporate performance were also backed-up by statistical findings. Much as there are challenges in large board size management in corporations there are more advantages in terms of corporate performance to corporations in countries like Pakistan where the rights of minor shareholders are infringed upon.

Finally, the study argued supports the notion of resource dependency theory which states that larger board size increases corporate financial performance (Alexander, et al., 1993); (Goodstein, et al., 1994); (Mintzberg, 1983); (Pfeffer, 1972); (Pfeffer & Salancik, 1978); (Provan, 1980). Results revealed a significant positive relationship between board size and bank performance (Malik, et al., 2014).

Nath, Islam and Saha (2015) looked at the influence of board structure on corporate's financial performance in Bangladesh's pharmaceutical industry listed on the Dhaka Stock Exchange (DSE). In the study, secondary data concerning accounting and market value was gathered from the pharmaceutical corporations' annual financial reports and the DSE website and library resources respectively.

Regression analysis was employed to establish relationships between variables. Descriptive statistics and correlation analysis were also used. Corporate financial performance was the only dependent variable proxied by Return on Assets as an accounting-based performance measure and Tobin's q as a corporate's market-based performance measure. On the other hand, independent variables were board size, board composition, board ownership and CEO duality.

To get a good insight of research problems, a survey research design was used while a quantitative research approach was employed. Causality, ability to generalize and reliability can be availed once this research approach is employed (Bryman, 2004). The empirical studies are hinged on 4 main board attributes being independent variables namely, board size, board composition, board ownership and CEO duality. Financial performance being a dependent

variable is based on a market-based performance measure and an accounting-based performance measure proxied by Tobin's q and Return on Asset respectively.

The findings revealed that there is a significant negative relationship between board size and corporation's financial performance. The findings were significantly applicable for accounting-based measure represented by Return on Asset and market-based measure represented by Tobin's q. The findings were in tandem with Jensen (1993) and Lipton and Lorsch (1992) even if a board averages 8 members and is behind the negative financial performance in listed corporations in Bangladeshi.

However, other findings revealed no significant relationship between selected independent variables and the corporation's financial performance. The findings are in line with Rashid (2009) and Rashid et al.(2010a) and recommended a small board size as suitable for Bangladeshi Pharmaceuticals at the same time, an increase in independent outside directors was required to uphold the monitoring activities of the board role that increase corporate financial performance. (Nath, et al., 2015).

Bebeji, Mohammed and Tanko (2015) examined the effect of board size and composition on performance of 5 out of 22 Nigerian banks listed on the Nigerian Stock Exchange (NSE) over a 9-year period. In selecting the sample, a non-probability method called judgmental sampling technique was used. The study used secondary data which was collected from the annual financial reports of the sampled Banks. Multivariate Regression analysis was used to analyze the data while correlation matrix was employed to establish the relationship and level of significance between dependent and independent variables.

Banks' performance was the dependent variable, proxied by Return on Asset and Return on Equity while the independent variable was corporate governance proxied by board size and board composition. Findings, after using multivariate regression analysis show that board size has a negative influence on performance of Nigerian Banks. (Bebeji, et al., 2015)

Isik and Ince (2016) examined the impact of board size and board composition on performance of 30 Turkish commercial banks from 2008 to 2012. The study used secondary unbalanced data. Financial data was collected from a web page of the Bank Association of Turkey (BAT) and Board size and outside data was collected from individual bank annual reports. The dependent variable was Bank performance and was proxied by two variables namely, operating

return on assets (OROA) while the independent variable was board structure proxied by board size and board composition.

Control variables were proxied by bank size, credit risk, liquidity risk, net interest margin and non-interest margin. The study used a fixed effects model. Regression analysis was adopted to establish the relationships and extent of significance between variables namely, board size, board composition and bank financial performance. Descriptive statistics and correlation matrix were also used. The results of panel fixed effects regression suggest a significant and positive effect of board size on bank's financial performance.

The result was in line with previous studies (Belkir, 2009; Adams & Mehran, 2012). The positive relationship between relationship enabled the acceptance of the hypothesis 1 which stated board size to be positively correlated to bank performance. The resource dependency theory supported the results. However, between outside directors' proportion and bank performance, there was a statistically insignificant relationship.

The result was backed by many previous studies (Hernalin and Wesbach (1991), Bhagat and Black (2001) and Kaymak and Bektas (2008) who stated that outside directors did not contribute to better bank performance. The result was in line with hypothesis 2 that outside board members proportion was uncorrelated with bank performance. The result is not supported by both agency and resource dependency theory. (Proxied by Operating Return on Asset and Return on Asset) (Isik & Ince , 2016).

Previous research has regularly used board size as a proxy measure of directors' expertise (Bacon, 1973; Herman,1981). Lager board size was forecast to be associated positively with company performance. Directors with diverse educational and industrial backgrounds, and skills and multiple perspectives that improve quality of action taken by the firm was the assumption concerning contents of larger boards. It was suggested that as board size increased, board of directors came into an improved power governing position of corporation while the CEO domination of the board became more difficult.

A positive relationship between board size and corporate performance was universally assumed. Sheikh et al (2012) analyzed 8,165 observations from compact disclosure and investor responsibility from 1992 to 2001. The study regression methodology and multivariate analysis in which Tobin's Q is the explanatory variable. A positive relationship was established between

board size and firm performance. the same results were found by Semosa (2012); Lin Chang (2014); Zakaria et al (2014); Bansal and Sharma (2016); Kojala et al (2017) and Banda (2019).

The arguments given are that corporations which increase number of directors on board benefit from shared ideas, skills which enhances corporate performance. Additional arguments are that firms with larger board size accumulate different views from members to make decisions and improve financial performance. Other arguments agree with Bacon, 1973 and Herman, 1981.

On the contrary, a study done by Shuken et al (2012) who assessed 300 Malaysian listed companies in 2011 found a negative relationship between board size and firm performance. A multi-regression analysis was used. Other contradictions were from Eyenubo (2013); Agyemang et al (2014); Shungu et al (2014); Banda (2019) and.

The study revealed that small boards consisting of seven board members may not be suitable for large firms which might need more members for strategic and goal decisions. Large boards consisting of twelve or more members might not be suitable for small firms, translation into delayed decision making and raising administrative and meeting expenses.

Belkhir (2009) investigated the relationship between board size and performance for a sample of 174 bank and savings-and-loan holding corporations for a period 1995 -2002. Panel data was used while regression models were employed to investigate the association between board size and performance. Fixed effects model was adopted after a Hausman test was conducted because the control for omitted variables in panel data set is realized.

Standard errors in data were identified by conducting a heteroskedasticity test which led to corrections in all regressions. Results showed a positive relationship between board size and performance (Proxied by Tobin's q and return on assets). The research attests that board size – performance relationship moves from board size to performance and that requests to decrease the number of Directors in banks would have a negative effect on performance (Belkhir, 2009). Guest (2009) studied the impact of board size on corporate performance over a period 1981-2002 for a sample of 2,746 UK listed firms. The sample consisted of unbalanced panel data set. Therefore, the study used the fixed-effects model because it controls for omitted variables in unbalanced data sets. Regression analysis used to establish relationship between variables. Board size was used as a dependent variable while three independent variables representing corporate performance measures used were profitability, Tobin's Q and share returns.

Results revealed a strong negative impact of board size on profitability (Tobin's q and share returns). The findings are popular in most econometric models which control for various types of endogeneity. More results show no evidence that corporate characteristics that determine board size result in a more positive board size - firm performance relation. Additional results indicate that a negative relation is prominent for large corporations which ideally have larger boards. Generally, these results support the notion that problems of poor communication and decision-making negate large boards effectiveness. (Guest, 2009).

Eyenubo (2013) studied the impact of bigger board size on financial performance from 2001-2010 for 50 corporations listed on the Nigerian stock exchange in Nigeria. The study used secondary data from various industries from the Nigerian stock exchange fact book. For hypothesis testing determination of relationship between Bigger Board and value for corporate financial performance, the study used regression analysis techniques as a tool.

This also set out relationships between dependent and independent variables. Corporate performance was proxied by Net Profit as a dependent variable while bigger board size was set as an independent variable. The study used r squared as a representation of coefficient of determination and goodness of fit test. To establish the overall significance of the model and hypothesis, the study employed f-tests while the presence or absence of first order correlation in the model was determined by Durbin Watson test. The study further used signs and magnitude to establish the presence of positive or negative linear relationship between dependent and independent variables. Regression analysis technique used reveal a negative relationship between bigger board size and financial performance. (Eyenubo , 2013).

2.7 Board independent and financial performance

Agency theorists, legalistic scholars, anti-class hegemony have all promoted the increasing of relative number of independent NEDs. Advantages of the approach are an increasing management's board independence, increasing directors' objectives, in contemporary to firm, representing multiple perspectives, and enhancing directors' expertise (Jones and Goldberg, 1982).

Rashid (2018) studied whether board independence influences firms' economic performance for Bangladesh listed firms. A sample of 135 Dhaka Stock Exchange listed firms was collected. To control for potential endogeneity problem, the study employed accounting and market

performance measures as well as simultaneous equation approach. Results in the study revealed there was no relationship between board independence and firm economic performance.

Additionally, board size was found to positively and significantly influence both board independent and firm performance. Questions of whether one size fits all type of corporate governance practices can be exercised around the world are raised by these findings. Ignoring the underlying institutional differences, Bangladesh has imitated the requirement of having outside directors to sit on corporate boards to make corporate boards accountable and independent. Board independence may still be an illusion in Bangladesh, even if board independence is an important attribute of corporate board practices in many developed countries (Rashid, 2018).

Al-Msiedeen and Afzakur (2018) examined board independence and firm performance. The purpose of the study was to investigate in form of outside independent directors, the influence of board independence on firm performance for Jordan listed firms. The study context was that of a developing country. The study used data covering from 2006 to 2026 and selected data from 880 firm-year observations on the Amman Stock Exchange.

The study used regression model to test the hypothesis and accounting performance measures proxied by ROA. Empirical results revealed that board independence has a positive impact on firm performance. The Agency theory was supported by results of the study. The study's limitation was that it employed ROA, an accounting-based measure for firm performance which could be manipulated and is a noisy measure.

Board independence in the form of representation of outside independent directors, is an important control mechanism that can add value to the firm. This is the implication of the study. Board independence in the context of developing countries will contribute to the literature on the corporate governance practices (Al-Msiedeen & Afzalur , 2018).

Reguera-Alvarado and Bravo (2017) examined the effect of independent directors' characteristics on firm performance. The study analyzed the relationship of how firm performance could be influenced by independent directors and the tenure. The period of study was from 2008 to 2012 in which a sample of listed firms from the United States of America was gathered. (USA).

Many techniques namely, sensitivity analyses and other robustness checks were conducted on the data set. The results showed that board independence had a positive influence on firm

performance. However, the relationship was only present during certain values and external directorship. The results indicate that the effectiveness of independent directors is determined by these variables. Therefore, to study the influence of board independence on corporate decisions, outcomes and strategy, there would be need for a more specific approach. Additionally, the study found evidence that the selection of board members has direct implications on companies (Reguera-Alvarado & Bravo, 2017).

Fuzi et al. (2016) studied the relationship between board independence and firm performance. The study highlighted that acting in the best interest of the shareholders, the board of directors is a collective body. Therefore, to pursue the shareholders' interest, there is need for the board to have a combination of executive and non-executive directors. Unless they are independent from management and ensure provision of unbiased business judgement, the non-executive directors on the board will not be able to exercise their duties effectively.

The persons entrusted by shareholders to represent them and will help to reduce agency problems are independent directors. The composition of the board members should be balanced and consist of independent directors as recommended by the corporate governance code and regulators. However, If the independent directors fail to effectively exercise their functions, mere compliance of the recommendations is not enough.

By examining board independence and firm performance, the study has been carried out in a few countries. The results have revealed that between proportions of independent directors and firm performance, there has been mixed associations. Enhancement of firm performance would not be assured despite companies comprising the highest number of independent directors. Therefore, to bring positive shareholder values, the existence of independent directors on board should be monitored (Fuzi, et al., 2016).

Liu et al. (2015) examined board independence and financial performance in China. The study highlighted as the relationship between board independence and firm performance as the first robust and comprehensive evidence in China. The study collected data between 1999 to 2012 from almost all publicly traded firms on the Shanghai and Shenzhen stock exchanges. The study finds an overall positive effect on firm operating performance in China by independent directors.

The study used instrumental variables for endogeneity checks, the difference-in-differences method, battery tests and the dynamic generalized method of moments estimator. In government-controlled firms and in lower information acquisition costs firms, there is a

stronger and positive relationship between board independence and firm performance. The study also revealed the constraining of insider self-dealing and investment efficiency role by Chinese independent directors.

Shareholders having more than 1% of total outstanding shares can nominate independent directors according to China's corporate governance code of listed companies. 70% of the independent directors are nominated by top shareholders of the firms, according to Shanghai stock exchange (2004) reports. Therefore, the notions that independent directors are effective monitors and that the government appoints stronger boards to prevent insider self-dealing and to credibly signal a commitment not to interfere in company affairs supports the findings (Liu, et al., 2015).

Alves (2014) examined the effect of board independence on the earnings quality gathering data from listed companies in Portugal. It investigated whether board independence reduced earnings management by improving earnings quality in a country with significantly various legal and institutional characteristics from those in Anglo-Saxon countries. The study highlighted the important role independent non-executive directors have in the monitoring of the financial reporting process according to the agency theory. Therefore, increased monitoring that would result in better earnings quality was associated with boards with more independent directors.

To control potential simultaneous problems between board independence and earnings quality, the study utilized ordinary least square (OLS) and two stage least square (2SLS). The results from the sample of listed companies in Portugal revealed that independent board members reduced earnings management by improving earnings quality. The study results were an indication that for companies to improve earnings quality, there was need for the enhancement of independence of boards by appointing more independent board members (Alves, 2014).

The Agency theory advocates that to ensure a better monitoring of any self-interest actions by managers and reduce agency problems, the existence of outside directors (non-executive directors) on the board gives the board the ability (Ingley and van der Walt, 2003; and Nicholson Kiel, 2007). The appointment of more outside directors does not only improve the effectiveness of the board and firm financial performance, but it also provides greater board independence (Fama & Jensen, 1983).

The resource dependency theory states that outside directors play critical roles concerning the external environment by giving access to necessary resources (Pfeffer & Salancik, 2003). The Agency and resource dependency theories agree that to ultimately have an improvement firm financial performance, it would take an increase in the proportion of outside directors on the board. Academic literature popularly defines board independence as the ratio of the number of outside (non-executive directors to the total number of directors on the board.

Literature findings have not been conclusive regarding the board independence and bank performance (Isik and Ince, 2016). Choi and Hasan (2005) examined the impact of ownership and governance on bank performance. For a period from 1998 to 2000, the study analyzed Korean commercial banks data. The data analyzed how the board independence affects the bank performance. Results revealed no relationship between board independence and bank performance.

Semosa (2012) examined five largest platinum mining companies on the Johannesburg stock exchange in the period from 2002 to 2011. Linear regression model and parametric tests were employed. The study revealed a statistically positive relationship between the independent Non-Executive Directors (NEDs) and firm performance. Similar results came from Meyer and Wet (2013); Agyemang et al (2014; and Lin and Chang (2014). The results imply that the presence of NEDs on boards stimulates monitoring and advisory board roles leading to firm performance.

Other implications are that independent NEDs introduced on boards would motivate management and enable them to adhere to regulations, carryout responsibilities and ensure improved corporate governance. Opposing views came from Shukeri et al (2012) who assessed 300 Malaysian listed companies in 2011. Multi regression analysis was used in the study. A negative relationship between board independence and ethnic diversity with firm performance was established. Additional contradictions Arouse from Zakaria et al (2014); and Bansal and Shama (2016). The study results signify that independent NEDs may not effectively perform their duties due to lack of skills.

2.8 Board gender diversity and financial performance

Miguel and Fernando (2020) statistically examined the effect of board diversity on firm performance for non-financial firms in Spain for the period 2005-2015. The study results

revealed no impact of board gender diversity on firm performance. However, Independent directors, executive directors and nationality mix had a positive impact on firm performance. In addition, there was a negative impact of educational diversity on firm performance. The study analyzed the performance consequences of demographic diversity because board diversity contributes to a greater social value. (Fernández-Temprano & Tejerina-Gaite, 2020)

Brahma et al. (2020) studied the impact of gender diversity, selected female attributes, and financial performance for FSES 100 United Kingdom firms. Gender diversity was measured as using critical mass theory as a level of female representation in the board room. The study results found that there was a highly significant and unequivocal when three or more females were appointed to the board than when only two or less females were appointed. Additional results showed post-appointment financial performance to be positively related to female age, educational level and to female held executive director positions. Similar results were attained after accounting for endogeneity concerns and using different proxy measures for firm performance namely, ROA and Tobin's Q (Brahma, et al., 2020).

Shehata et al. (2017) analyzed the relationship between board gender diversity and firm performance in small and medium-sized enterprises (SMEs) in the United Kingdom. The study covered a period from 2005 to 2013 and investigated two perspective roles, namely, gender and age. A large sample size of 34,798 firms was collected. The study results revealed a negative and significant association between each of gender diversity and age diversity, and firm performance.

The result bring into question calls for increased board diversity. A possible explanation to the results could be that previous studies have been large enterprises while the current study is sampled of firms from SMEs. The study concluded by indicating how the study has given insight to policymakers, governments, and entrepreneurs in the achievement of better performance by enhancement in SME sector through the enhancement of their performance (Shehata, et al., 2017).

Reguera-Alvarado et al. (2017) studied the relationship between board gender diversity and financial performance in Spain. In terms of legally requiring gender quotas in boardrooms and historically characterized by a minimum female participation in the workforce, Spain is the second country in the world to do so. The study showed that there was over 98% increase of

number of women on boards according to a sample of 125 non-financial firms listed on the Madrid Stock Exchange from 2005-2009.

The study highlighted the enactment and or mandatory laws that increase the number of women on boards of companies by several countries in recent years. To get rid of social and labor injustices which women have traditionally faced and had relegated them to smaller-scale jobs, is the purpose of these regulatory interventions. However, the female representation in boardrooms remain far from desired levels, despite the advances achieved.

Thus, from both the ethical and economic perspectives, it has become necessary to enhance the advantages of board gender diversity. The increase in the number of women in the boards of firms suggest that compulsory legislation offers an efficient framework to execute the Spanish codes of good governance recommendations. Additionally, results show a positive relationship between number of women increase and economic results. Therefore, mandatory laws being a key factor to do, both results suggest that gender diversity in boardrooms should be increased (Reguera-Alvarado, et al., 2017).

Bryson Mumba (2017) made an empirical analysis of panel data concerning the relationship between board gender diversity and financial performance of corporations listed on the Lusaka Stock Exchange (LuSE) in Zambia. The study's data was collected from annual reports of listed companies for a period of eleven years from 2006 to 2016. The analysis was done within the dynamic panel data framework.

The study used empirical accounting research which uses data sets involving time-series and cross-sectional dimension (panel data) (de Jagger, 2008) and is very popular form of longitudinal data analysis in social and behavioral science researchers (Yafee, 2003). To determine the research variables, the study analyzed annual reports downloaded from the LuSE and company websites were analyzed.

The study used a population of all the 22 companies listed on LuSE from 2006 to 2016. Regression analysis was conducted using SPSS statistical software. The study's methodology had a limitation caused by some companies' annual reports which were not available. Hence the results were from the available annual reports. Overall findings were that board gender diversity as proxied by number of women on the board was positively related to ROA, ROE and Leverage and explains 5%, 6% and 9% of the changes in ROA, ROE and leverage respectively.

In addition, the regression models explained a significant proportion of ROA and leverage variation. The regression coefficients for the women on boards was found to be close to zero. Future research study recommended the studies between corporate governance and firm performance using multivariate regression analysis of listed corporations in Zambia. Areas of interest in corporate governance were as follows, duality of chief executive officer, the size of the board of directors, separation of leadership and top management compensation and tenure. (Mumba, 2017).

Conyon and He (2017) examined the relationship between boardroom gender diversity and firm performance. employing quantile regression methods. The study attempted to show that women presence on the board had a positive effect on firm performance after analyzing annual data of over 3,000 United States of America firms from 2007 – 2014. The study also attempted to show that the effect on the performance was different at different stages of distribution.

Importantly was the demonstration of that firm performance changed with alteration of presence of women directors. The quantile regression study results revealed that there was a larger positive and significant impact of female directors in high-performing firms as compared to low-performing firms. As assumed in previous research board gender diversity is not homogeneous. Also, the endogenous selection of women to the board was accounted for.

Additionally, the study indicated that there was a positive correlation between firm performance and board gender diversity when employing instrumental variable quantile regression. The study concludes that overall, apart from the quantile regression adding value to the empirical examination of the performance impact of board gender diversity, the boardroom gender diversity influences both the conditional mean and the dispersion of the firm performance (Conyon & He, 2017).

Ben-Amar et al. (2017) examined board gender diversity and corporate response to sustainable initiatives. It looks at the effects of female representation on the of directors in corporate response to stakeholders' demands for climate change-related public reporting risks. As a sustainable initiative supported by the institute of investors, the study relied on the carbon disclosure project.

As a first step towards addressing climate change issues and reducing the firm's carbon footprint, greenhouse gas emissions measurement and its disclosures to investors can be thought of. Collecting data over the period 2008-2014, the study found that the likelihood of voluntary

climate disclosure increases with women percentage on boards, based on selected sample of Canadian publicly listed firms. With regards to board gender diversity the study found evidence that supports critical mass theory. To promote gender diversity in corporate governance while demonstrating board effectiveness in stakeholder management, the findings reinforce initiatives being undertaken around the world (Ben-Amar, et al., 2017).

Kilic and Kuzey (2016) examined the effect of board gender diversity on firm performance. The study's two primary goals were to investigate the effect of board gender diversity and to determine the board characteristics on listed companies in Turkey. To investigate the relationship between board gender diversity and firm performance, the study employed instrumental variables regression analysis techniques. Data of companies from Bursa Istanbul was collected for a period from 2008-2012. Results indicated a male-domination of companies in Turkey.

The results revealed a positive relationship between boards with an inclusion of female directors and financial performance (measured by ROA, ROE and return on sales). The study observed that in emerging economies, empirical studies are limited on the relationship between board gender diversity and firm performance. Therefore, regarding the link between board gender diversity and financial performance, there is still no consensus due to mixed and certain times contradictory results in prior studies. By showing that a female board member can enhance financial performance, the study extended literature to the body of knowledge (Kilic & Kuzey, 2016).

Low et al. (2015) examined the relationship between board gender diversity and financial performance using samples Singapore, South Korea, Hong Kong, and Malaysia. The study results revealed that there was a positive relationship between increasing female directors on the board and firm performance measured by ROE. However, in countries where there are higher female economic participation and empowerment, the positive effects of gender diversity appear to be diminished.

Tokenism could have been caused this. The study recommended in countries with strong cultural resistance, forcing the female appointment or mandating gender quotas could reduce firm performance (Low, et al., 2015).

Marinova et al., (2016) studied the board gender diversity and firm performance from Netherlands and Denmark countries. The study collected data in 2007 and employed empirical

data on the 186 listed firms. In the boardroom, almost 40% have at least one woman. Only 5.4% is the average share of women within boards.

The study used a two-stage least square estimation techniques to investigate the impact of board gender diversity on firm performance measured as Tobin's Q. The study results showed that there is no relationship between board diversity and firm performance based on the data set (Marinova , et al., 2016).

2.9 Theoretical and Conceptual framework

This conceptual framework seeks to explain the main areas of the study in terms of variables and their presumed relationships (Miles and Huberman, 1994). It is created out of theory and previous research knowledge.

2.9.1 Corporate governance foundation theories

Corporate governance is an aggregation of various disciplines. Therefore, to inform the corporate governance foundation many theories exist. These are, agency, shareholder primacy, stewardship, stakeholder, transaction cost economics, resource dependency, social network, political, legitimacy, managerial and class hegemony, engaged shareholder, imperialism and imperial model and social theories.

2.9.1.1 Agency theory

The Agency theory dilemma was reported by Adam Smith (1776) like the stewards of a rich man. Managers would pay attention to small matters concerning themselves than in honor of their masters. In the management of such a corporation, carelessness and extravagance regularly exist. Agency theory is engrossed in the dilemma concerning the separation of ownership and control.

The legal separation of ownership and decision rights and the personal separation of owners and managers results in the agency theory dilemma: the conflict of interests between managers and owners of the corporation. Agency theory proposes an inherent imperfection in the relationship the relationship between the managers(agents) and owners(principal) of capital (Smith, 1776).

Agency theory is an enduring notion that states that the separation corporate ownership from management, actions, decisions, and actions by managers will drift from values which optimize shareholders' interests (Jensen & Meckling, 1976). Initially worked on by Berle and Means in 1932, the Agency theory later developed by Harold Demsetz in the beginning of the 1970s.

The extension of this theory was done by Jensen and Meckling (1976) involving the separation between ownership and control that shareholding results in promotion of managerial responsibility from corporate's principal to their agents or managers. Entrustment of duties to agents results in deviation of motivation due to alternative choices of threats. A formal key to the agency conflict between shareholders and habitual management is the corporate board (Muriithi, 2011).

This study is based on the Agency theory (Jensen and William, 1976). It is a study of the impact of Board composition on financial performance of listed corporations in Zambia. To effectively monitor and provide advisory services in the management of corporations, regulatory agencies provide for companies to have board of directors. Listed corporations are legally recognized as able to sue or be sued. They could also acquire assets in their names and as a separate legal entity after incorporation.

2.9.1.2 Resource dependency theory

Resource dependency theory highlights that wealth required by corporations should be obtained via a system of agreements and the order and success in combining systems spaces directs the standard of corporate performance. Resource dependency theory outlines organizational success as capacity to increase strength by acquiring scanty and vital wealth (Pfeffer, 1972; Ulrich and Barley, 1984).

Board of directors could help corporations in acquiring important wealth which could be way-off the corporation's control (Brown, 2005). Resource dependency theory assumptions are that a corporation's endurance is affected by encompassing social, political and task domain and is grounded on its potential to obtain important wealth from the surroundings (Borman , 2010).

Regarded as a body for the successful control, monitoring and regulation of corporations, corporate governance permits for substitution of internal and external composition for attaining fundamental goals, corporations need to obtain the desired wealth to guarantee continuity (Htay

and Salman, 2013; Borman, 2010; Daily et al., 2003). Resource needs to be supplied by undergoing through a system with the outside domain (Htay & Salman, 2013).

A consideration was made for the domain connections of corporations with external resource as the fundamental premise of resource dependence (Yusoff & Alhaji, 2012). Resource dependency theory is held to set out corporations' prosperity as the capacity to enlarge potential by obtaining meagre and fundamental resources (Van Ness, et al., 2009).

2.9.1.3 Stakeholder theory

Against stewardship theory, Stakeholder theory is centered on the plan that a corporation is a communal institution which is liable and answerable to many stakeholders encompassing those that affect or are affected by the corporation (Peters & Bagshaw, 2014). The stakeholders in this case are owners, customers, employees, management, suppliers, government, and local communities (West, 2006).

Stakeholder theory differs from stewardship and shareholder theories regarding corporate governance. Stakeholder theory is a supplement of agency theory because it protects the concerns of various groups and individuals pertaining to ethical, social, and environmental concerns (Peters and Bagshaw, 2014; Ferde, 2012; and Freeman, et al., 2004).

Although the stewardship theory stresses on increasing shareholder value in financial terms, it is argued that the value should also incorporate environmental, social, and economic factors (Institute of Directors of Southern Africa (IoDSA), 2009). There is a reciprocal correlation between the corporation and its stakeholders. The corporation's capacity to generate its own value lies on its potential to generate value for others (Institute of Directors of Southern Africa (IoDSA), 2016).

Therefore, stakeholders apart from shareholders need to be examined to increase corporation's value to guarantee viability of the corporation. This is a clear indication of that for value to be generated, enough controls must be laid down (Chartered Institute of management Accountants (CIMA), 2013). Also, there is justification that corporations do not live on their own space (only shareholders) but there are many stakeholders that affect the activities of the corporation because of their importance.

Researchers acknowledge that a corporation's business dealings affect the outside environment calling for accountability of the corporation to a diverse set of stakeholders than just shareholders (Kyereboah-Coleman, 2007; Yusof and Alhaji, 2012). In the same vein, modern corporate governance principles promote theory which favors legal and logical demands, expectations, and interests of stakeholders in a wholistic and feasible way for decision making (Dzingai & Fakoya, 2017).

Stakeholder theory considers various stakeholders which could be categorized as internal, connected, and external stakeholders which consists of management, employees, customers, suppliers, financiers, government, and community (Brierly Price Prior, 2013), following the debate that the shareholder is just one of the stakeholders in the company and in agreement with sentiments of Salami, Johl and Ibrahim (2014).

Sarbah and Xiao (2015) agrees from the primary onset that corporate governance concerns ensuring that the concerns of a company's shareholders and stakeholders are considered together with the balancing of their interests. Steering corporate governance is one of the main reasons for stakeholder theory in addition to the following. Stakeholders of the companies consists of shareholders as just one group.

Much as achievement of company objectives, for example, maximizing shareholders' wealth through profit maximization is important, equally important are the needs of other stakeholders such as government, employees, suppliers, and the community. Corporate governance is seen as a relationship web (Feizizadeh, 2012); and only the consideration of the interests of stakeholders will there be a fulfilment the interests of shareholders (Feizizadeh, 2012). Htay and Salman (2013) have re-echoed sentiments as above that stakeholder's theory takes into account interests of various stakeholders hence, there exists several contracts to manage such relationships.

The relationship is viewed by Htay and Salman (2013), as well as Badulescu and Badulescu (2008), as contractual arrangements which generate costs. Therefore, financial performance of the LuSE listed corporations can be influenced by the stakeholders. the stakeholder theory. For

example, LuSE receives equity finance from shareholders, short and long-term debt from banks, credit from suppliers, revenue from customers, and management manages the resources.

In such a situation, financial performance of LuSE listed corporations can be influenced by actions from the different stakeholders. In the Stakeholder theory, costs of maintaining the contractual relationships are not considered important as the emphasis is on maximizing value of the different stakeholders. However, in the quest of maintaining creating wealth, the transaction cost economic theory considers such costs to be important.

2.9.1.4 Shareholder primacy theory

Millon (2013) advocates that shareholder primacy is the notion that promoting the economic interests of shareholders is corporate management's major responsibility, a term academics of corporate law are familiar with. The primary philosophy driving the modern corporate governance movement is the basis of this investor protection. Zambia's financial market cannot remain behind while global financial markets are getting more integrated than before.

Therefore, corporate governance practices in other countries such as Australia need to be incorporated in LuSE listed companies in terms of shareholder primary theory of corporate governance. In agreement with Millon (2013) view above, Stout (2003) argues that in order to offer alternative corporate governance theory, primacy theory was introduced as an offer of alternative corporate governance theory.

The maximization of shareholders' wealth or value is the aim of the shareholder primacy theory. Shareholder primacy postulates that shareholders, as informed by the agency theory and thus rooted in finance and economics, as principals have ultimate control while management are agents who should be accountable to the shareholders. Therefore, to exert pressure on how the company is governed, the proposition is that shareholders influence the running of the company (Lan & Heracleous, 2010).

According to Collison, Cross, Ferguson, Power, and Stevenson (2011), Gamble and Kelly (2001) as well as Stoney and Winstanlet, the core of Anglo-American corporate governance principles have traditionally been shareholder primacy. The advantages of this theory of corporate governance are:

Efficiency: directors' knowledge and experience are maximized by shareholder primacy (Collison *et al.*, 2011:19; Salacuse, 2004);

Accountability to the owners (shareholders) is ensured by the Shareholder primary (Collison *et al.*, 2011; Vinten, 2001).

Shareholder primacy does not only recognize that shareholders should be free to resolve how to deal with their wealth but also places the concept of private property in the position of private property. (Collison *et al.*, 2011; Pettet, 2001); Shareholder primacy postulates not only for the satisfaction of other social needs and requirements but also the generation of wealth, companies meet (Collison *et al.*, 2011; Wallace, 2003).

According to Collison et al., (2011), the disadvantage of shareholder primacy concept is that it dismisses the likelihood of the development of stakeholder relationships as well as encouraging a short-term directional focus within companies at the expense of longer-term strategy. Therefore, instead of being concerned about the company, the agent is more concerned about the shareholder. To ensure value creation for the company, the agent should be responsible for the operations of the company for the interest of all shareholders. Therefore, to fulfil this role, the agent should be a steward.

2.9.1.5 Transaction cost economics theory

Htay and Salman (2013); and Badulaescu and Badulescu (2008) advocates that transaction cost economics theory sees a company not only as means of organizing and regulating transactions and serve to achieve relationships in contracts but also as a sum of contracts put into practice. The Transaction cost economics theory's main concern is not only aimed at offering a methodology through which the government of a company affects a company's economic value but also in carrying out economic transactions based on the most efficient governance structure (Tadelis & Williamson, 2010).

Melyoki (2005) argues that the transaction cost economics theory departs from traditional theory of the company in which assumptions of rationality and perfect information are made and is applied in the neo institutional economics theory to the study of economic organizations. Coase (1937) in his seminal work stressed that the minimization of transaction costs of trading in markets is the reason economic organization exist. Transaction costs are the costs of not only ensuring that parties fulfill their exchange obligations but also costs of operating the market

system as well as costs related to the search for a party with whom to transact and negotiating the terms of transacting (Maitland, et al., 2000).

Htay and Salman (2013) echoed this by stating that transaction costs refer not only to implicit fees of monitoring and controlling a transaction but also to explicit fees associated with a transaction. Saravia and Chen (2008), stated that the transaction costs take place due to information asymmetry (incomplete information) and bounded rationality (limited processing capacity). Therefore, considering very possible outcome associated with any transaction, bounded rationality comes from a limited capacity of shareholders and managers to process all the information available (Htay & Salman, 2013).

Additionally, the uneven distribution of information between the shareholders and agent causes information asymmetry. Identical to Agency theory is the transaction cost theory where it is assumed that the aim is to maximize managers' own interest at the expense of the shareholders. Therefore, Melyoki (2005) is of the view that transaction theory to be effective in protecting in the protection of interests of shareholders, transaction theory does not address itself to the way of organizing the board.

Also, managing companies' existing and new dependencies within their operating environment of relationships with companies with other companies is important (Borman , 2010), while the transaction theory seeks the best governance structure that would control the agents' opportunistic behavior in pursuit of maximization of profit for their shareholders (Htay & Salman, 2013).

Dependencies in this case refer to resources depended up on by companies to survive (Htay & Salman, 2013 and Borman, 2010). Generating these such resources could be made from community influencers (e.g., politicians, the clergy, community organization leaders, university faculty), experts, support specialists, insiders among others (Htay & Salman, 2013).

2.9.1.6 Stewardship theory

Stewardship Theory was prevalent the 1960s in the United States of America (USA) and the Anglosphere (Friedman, 1970). Corporation managers are responsible for looking after the shareholders' assets(stewardship). The Stewardship theory is fundamentally engaged in corporations increasing a return on shareholders' investment. This ultimately generates value for the corporation.

Therefore, the agents' goal is to enlarge corporation's performance since the agents' needs and success are attained when the corporation is meeting its targets (Yusoff and Alhaji, 2012; Kyereboah-Coleman, 2007; Abdullah and Valentine, 2009; Davis, et al., 1997; Donaldson and Davis, 1991); and Smallman, 2004).

It is further argued that Stewardship theory promotes a close correlation between managers and the prosperity of the corporation hence stewards guard and maximize shareholder interest in line with corporation performance (Yusoff & Alhaji, 2012). The Stewardship theory argues that corporations are a supplement of shareholders. Its aim is the supply of goods or services to customers the reward of owners (Friedman, 1970).

Stewards are the corporation's management team acting on behalf of shareholders, guarding and generation profits for shareholders (Abdullah & Valentine, 2009). Grounded in psychology and sociology, the Stewardship theory insists on increasing shareholders' wealth via corporation performance (Peters and Bagshaw, 2014; Al-Malkawi and Pillai, 2012; Davis et al., 1997). The Steward is accountable for protecting the concerns of the shareholders.

A corporation has various stakeholders who influence or are influenced by its activities, a steward is therefore expected to master these requirements and implement them. The stakeholder theory recognizes the needs of other stakeholders apart from the shareholders. The Stewardship theory is hinged in psychology and sociology. It was modified as a theoretical framework for researchers in scrutinizing performance, actions and decision making for executives in diligently representing the principals as stewards (Davis, et al., 1997).

The theory concludes that managers honest and qualified to handle resources of the corporation and aim at optimizing the shareholders' claims because they are aware of the corporation's strengths, weaknesses, opportunities, and threats (Boyd, 1995).

2.9.2 Conceptual framework

The conceptual framework diagram below shows a direct relationship between board composition (independent variables) and corporate financial performance (dependent variables). Board composition is proxied by three variables namely, board size, board independence and board gender diversity. Financial performance is proxied by fourteen financial performance ratios categorized under profitability, liquidity, activity (efficiency) and gearing. Firm size (logFSZ) is also shown as a control variable proxied by log of total asset.

Dependent variables

independent variables

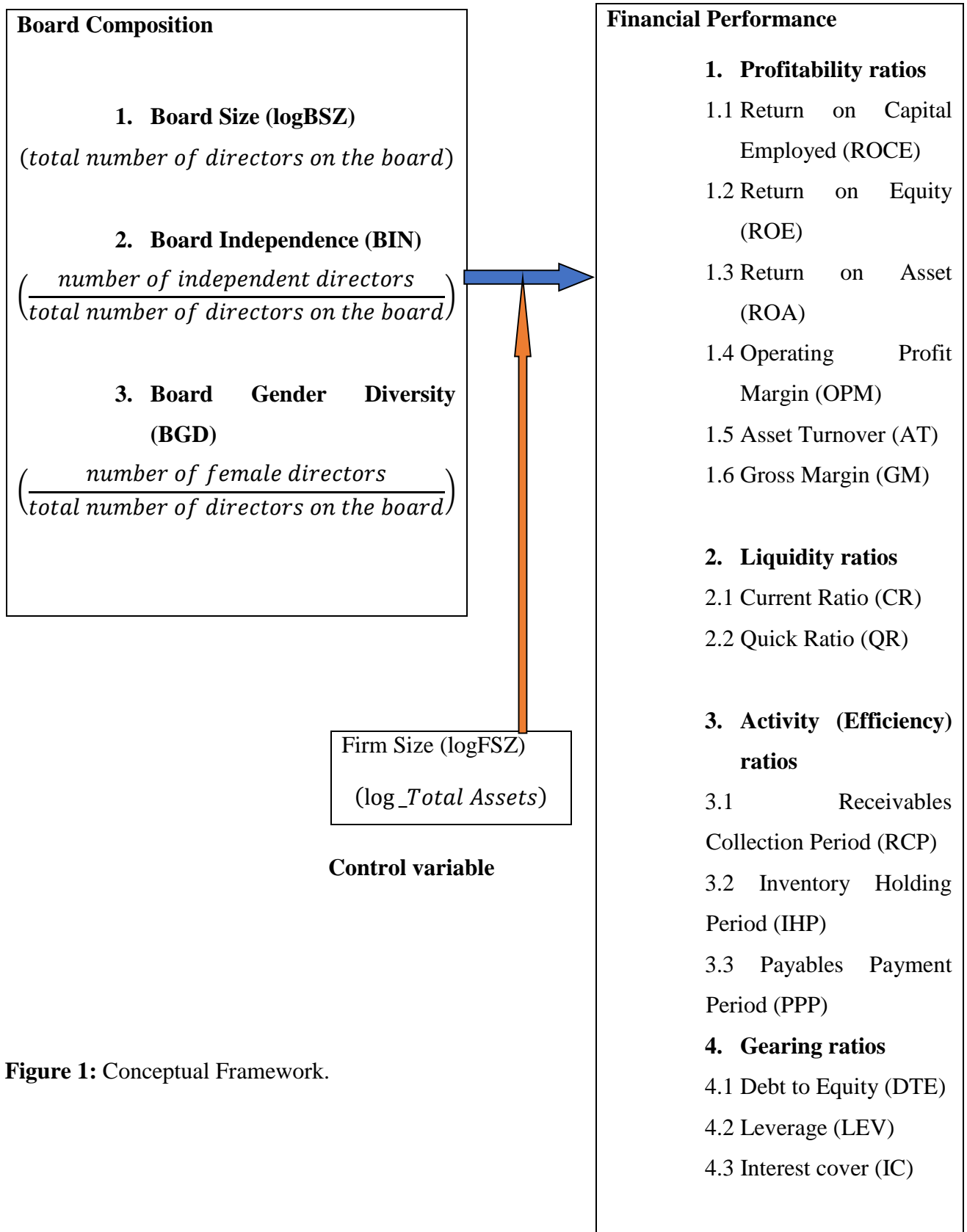


Figure 1: Conceptual Framework.

2.9.3 Operational definitions

Corporate governance is the structure of rules, practices, and processes used to direct and manage a company. Board composition is one of the key attributes of corporate governance and consists of three elements namely, board size, board independence and board gender diversity. Board size refers to the total number of directors on the board of each sample firm which is inclusive of the CEO and Chairman for each accounting year. Board independence is that ratio of independent non-executive directors to the total number of directors on the board. Board gender diversity is the ratio of female directors on the board to the total number of directors on the board. (Zahra & Pearce II, 1989).

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. To measure financial performance, this study has focused on accounting measurement as stipulated by the Association of Chartered Certified Accountants (ACCA) body and has categorized the measures in terms of profitability, liquidity, efficiency, and capital debt. This has resulted the adoption of fourteen accounting ratios to measure financial performance. Board of Directors is an elected group of individuals that represent shareholders. Listed company a company that is included and on a given stock exchange so that its stock can be traded.

2.9.4 Ethical considerations

Like every research, ethics are an important consideration. Wallace et al. (2012:6) submit that Ethics is a very important concept in business and management research. It influences on how the candidate interacts with different people in one's research. According to Saunders, et al., (2019), ethical concerns will emerge as one design and plan their research, seek access to organizations and to individuals, collect, analyze, manage, and report one's data.

Research Ethics refer to standards of behavior that guide one's conduct in relation to the rights of those who become the subject of one's work or are affected by it. This study affects corporate governance which hinges on ethics that requires a fair treatment of all stakeholders (shareholders, employees, customers, suppliers, government, pressure groups and local communities) of a company. Therefore, the researcher will apply care and honestly as an ethical value to comply with the University of Zambia's code of ethics and avoid exploitation of the study's participants. This is consistent with (Gibbs, 2004) who argued that ethics considerations

are important to avoid exploitation of a study's participants. This is further echoed by Cakar and Alakavuklar (2011) as well as Costley and Gibbs (2006) who stated that personal morals should also be applied to ensure ethical behavior in one's research.

The following are the ethical considerations for this research study: The researcher will seek approval from relevant authorities of the listed companies to conduct research. The researcher will include the communication to the relevant authorities which includes detailed information regarding research identification of the researcher. In addition, participant will sign the informed consent form to ensure that the study is conducted in an ethical manner and that participants are willingly involved in the study.

The researcher has the responsibility of explaining to the respondents the objective of the research including the emphasis of confidentiality (of data that will be collected). The researcher will also to the respondents that participation in the study would be voluntary and that one could withdraw at any time without any consequences. Additionally, responses will have no bearing on the on the respondents. The researcher will also advise the respondents that he will not make mention of their names, but rather that anonymity would be maintained.

A further ethical consideration is the concern of how the information obtained from the study will be used. The researcher will explain to the listed companies and the participants that the information obtained from the study, including the research report, will be used for academic purposes and not for commercial purposes to the disadvantage of any of the participating listed companies. The researcher will assure and share the research findings and the key participants and get their reactions. Finally, the researcher's ethical clearance would need approval from the University of Zambia Ethics Committee and clearance number obtained.

2.9.5 Identifying gaps of knowledge.

After studying much literature from the United States of America, Europe, Asia, Middle East, Nigeria, Kenya, South Africa, and Zambia it appears there is a lot of research concerning corporate governance, board composition and financial performance. However, most studies on corporate governance in Zambia concern the law. Therefore, according to our current assessment, very few studies in Zambia concerning the relationship between the corporate governance attributes such as board composition and financial performance. This study draws

its motivation from Banda, 2019 who recommended future investigations to be made on the relationship between board size and financial performance in Zambia (Banda, 2019). This study has taken heed of the recommendations by Banda (2019) and is examining the relationship between board composition (board size, board independence and board gender diversity) and financial performance. We believe this study will add more to the body of knowledge.

2.9.6 Statement on how the research will contribute to the knowledge of study.

The study will contribute to the knowledge gap because there are very few studies done in Zambia in this area. In addition, the study will help policy and decision makers in different organizations use the study to improve their organizational financial performance. Furthermore, the study will enable future researchers to understand the status and identify what areas they would need to explore to increase the body of knowledge.

CHAPTER 3

3.0 METHODOLOGY

3.1 Introduction

This chapter briefly presents data source; population, sample and sampling techniques; research instruments; description of variables; dependent variables; profitability ratios, return on capital employed; return on equity; operating profit margin; asset turnover; gross margin; liquidity ratios; current ratio; quick ratio; efficiency ratios; receivables collection period; inventory holding period; payables payment period; gearing ratios; debt to equity; capital gearing ratios; leverage; interest cover; independent variables; control variables; validity and reliability of data; and limitations of the study.

3.2 Data source

This study employed descriptive research and correlation analysis (Kajola, et al., 2017; and Leedy and Ormrod, 2021). We used secondary data of audited financial statements corporations of listed on the Lusaka Securities Exchange (LuSE) from websites of respective corporations and African financials from 2008 to 2020 (Kajola, et al., 2017). The selection was guided by data availability and relevance.

3.3 Population, sample, and sampling techniques

As of 2020, a total of twenty-two (22) corporations were listed on LuSE. A sample size of 5 corporations out of a population of 22 was selected using proportional stratified sampling technique. The proportion stratified sampling technique was suitable for this study because there are different strata (sectors) in the population which appear in different proportions (Leedy & Ormrod, 2021). The five corporations and business sectors sampled are shown in Table 1 below.

Table 1: A sample of Corporations used in the study.

Item No.	Corporation's Name	Sector	No. of Corporations
1	Lafarge Cement Zambia	Industrials	1
2	Standard Chartered Bank Zambia	Financials	1
3	Zam-beef Products	Consumer Goods	1
4	Zambia Sugar	Consumer Goods	1
5	ZCCM Investment Holdings	Basic Materials	1
Total			5

Source: Researcher's compilation from Lusaka Securities Exchange section of the African Markets website (African Markets, 2020).

3.4 Research Instrument

Panel data regression analysis was used in line with previous studies. A simultaneous combination of time series and cross-sectional data was involved. Fixed effects and Random effects were the two estimation techniques considered. The simple pooled Ordinary Least Squares (OLS) technique could not be used because since the sample comprised corporations of different sizes and sectors, OLS assumes all firms are the same in all aspects. In other words, pooled OLS model does not account for heterogeneity. Therefore, in conformity with Yermack (1996), Marfo-Yiadom and Agyei (2011) and Dawood, Moustafa and El-Hennawi (2011), Fixed effects and Random effects models are applied where lagged values are not included. This will assist in solving the endogeneity problem that is caused by omitted variables, reverse causality between the dependent variables and explanatory variables or measurement error of explanatory variables. Hausman (1978) specification test was used to determine which of the two techniques should be used for valid inferences. Stata 14.2 software was used for statistical and data analysis. Furthermore, simple correlation analysis to test for relationship between board size and financial performance was done.

3.5 Description of variables

This section defines dependent and independent variables. These will include profitability ratios, efficiency ratios, gearing ratios financial performance proxies and a control variable.

3.5.1 Dependent variables

A dependent variable can be defined as the variable that is being explained or predicted by another variables (Anderson, et al., 2008). A dependent variable can also be defined as a variable in an experiment that explains or predicts. This variable's values depend on other variables and is commonly denoted by the letter 'Y' (Frost, 2019).

Financial performance is the only dependent variable of the study and is measured by fourteen proxy variables. These are Return on capital employed (ROCE), Return on equity (ROE), Operating profit margin (OPM), Asset turnover (AT), Gross margin (GM), current ratio (CR), Quick ratio (QR), Receivables collection period (RCP), Inventory holding period (IHP), Payables payment period (PPP), Debt to equity (DTE) ratio, Leverage (LEV), Interest cover (IC) and Return on asset (ROA) (Association of Chartered Certified Accountants(ACCA), 2022). These corporate financial performance measures are grouped in four categories namely, profitability, liquidity, activity (efficiency) and gearing.

3.5.1.1 Profitability ratios

A corporation's ability to deliver profits is measured by profitability ratios (Association of Chartered Certified Accountants(ACCA), 2022). The necessity of profit is the giving of required return to investors and the provision of funds for business investments. There are five ratios commonly used to measure profit. These are Return on capital employed (ROCE), Return on equity (ROE), Operating profit margin, Asset turnover and Gross margin.

3.5.1.1.1 Return on capital employed (ROCE)

ROCE measures the earned return on capital invested in the business. It is calculated as follows:

$$\text{Return on capital employed(ROCE)} = \frac{\text{Profit before Interest and tax(PBIT)}}{\text{Capital employed}} \times 100\%$$

Return is measured by Profit before interest and tax (PBIT), also known as operating profit. This constitutes funds used for payment of interest to debt investors and shareholders' dividends. Hence, it compared with long-term debt and equity capital invested in business.

Capital employed is calculated as (non-current liabilities + total equity) or (total assets -current liabilities).

ROCE is necessary due for the rewarding of investors for risks they have taken by investing in the corporation. The higher the ROCE, the better it is for investors. Comparison should be made with returns from alternative investments of similar risk.

3.5.1.1.2 Return on equity (ROE)

ROE signifies how good the corporation is in generating returns on investment received from the shareholders (Economic times, 2023).

ROE is calculated as follows:

$$\text{Return on equity (ROE)} = \frac{\text{Profit after interest and tax}}{\text{Total equity}} \times 100\%$$

A higher ROE is better for the investor. Like ROCE, comparisons should be made with similar risk alternative investments for assessments and decision making.

3.5.1.1.3 Operating profit margin (OPM)

Operating profit margin (also known as net profit margin) focuses on operating profit earned as a percentage of revenue. The higher the operating margin the better. Poor performance is usually attributed to low prices or high costs (Cost of sale or overheads).

This is calculated as follows:

$$\text{Operating profit margin} = \frac{\text{PBIT}}{\text{Revenue}} \times 100\%$$

3.5.1.1.4 Asset turnover (AT)

Asset turnover measures the ability of an organization to generate sales from its capital employed. The higher the Asset turnover the better. However, the downside could be overtrading where a business operates at unsustainable level by its capital employed. It is common to have high asset turnover accompanied with low sales and vice versa.

Asset turnover is calculated as follows:

$$\text{Asset turnover} = \frac{\text{Revenue}}{\text{Capital employed}}$$

3.5.1.1.5 Gross margin (GM)

Gross margin looks at organization's trading activities. Again, the higher the Gross margin the better. Poor performance is usually attributed to low prices or high cost of sales.

This is calculated as follows:

$$\text{Gross margin} = \frac{\text{Gross Profit}}{\text{Revenue}} \times 100\%$$

3.5.1.2 Liquidity ratios

The ability of an organization to meet its short-term financial obligations is measured by Liquidity. There are two commonly used ratios. These are Current and Quick ratio.

3.5.1.2.1 Current ratio (CR)

Liabilities which fall due within one year are compared with cash balances, and assets which should turn into cash within one year by the Current ratio.

Current ratio is calculated as follows:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

The company's ability to meet its short-term liabilities is assessed by the current ratio. Current ratio should not exceed 1:1 according to traditional textbooks. A current ratio should probably exceed 2:1 for a company to be able to safely meet its liabilities. Current ratios however vary between industry sectors, where many companies safely operate below 2:1 level.

The case of the higher the better is not applicable to current ratio. A high current ratio indicates that the company is too liquid. Cash is usually identified as an "idle asset" since it does not earn any return and hence too much cash is considered wasteful. A high current ratio could also show that the company is sufficiently using short-term finance which is cheap.

3.5.1.2.2 Quick ratio (QR)

Quick ratio (QR) identifies that the conversion of inventory into cash usually take too long. Therefore, Quick ratio (Acid test) does exclude inventory values for liquid assets. A company's current ratio and quick ratio should practically be considered alongside operating cashflows. Weak liquidity ratios would often be compensated by a healthy cashflow.

Quick ratio (QR) is calculated as:

$$\text{Quick ratio} = \frac{(\text{Current assets} - \text{inventories})}{\text{Current liabilities}}$$

3.5.1.3 Efficiency ratios

An organization's ability to convert statement of financial position items into cash or sales is measured by Activity ratios. Additionally, the efficiency of business in managing its assets is also measured by Activity ratios. There are three Activity (efficiency ratios) namely: Receivables collection period, Inventory holding period and Payables payment period.

3.5.1.3.1 Receivables collection period (RCP)

If a corporation's accounts receivable amounts to K20,000 on annual credit sales of K40,000 then on average its annual credit sales uncollected are 50%. Assuming evenly spread of credit sales over the year, this means 50% of year's sales, amounting to 183 days, to collect cash from customers.

Calculated as follows:

$$\frac{K20,000}{K40,000} \times 365 \text{ days} = 183 \text{ days}$$

The faster the money is collected, the better it is for liquidity purposes. Chances of incurring bad debts are higher when customers are given longer time to payback periods. One disadvantage with putting too much pressure on customers to pay quickly is the damage to company's ability to generate sales.

Receivables collection period is calculated as follows:

$$\text{Receivables collection period} = \frac{\text{Receivables}}{\text{Credit Sales}} \times 365 \text{ days}$$

3.5.1.3.2 Inventory holding period (IHP)

Inventory holding period measures how long a company carries inventory before it is sold. The shorter the period, the better, for liquidity purposes as less cash is held up in inventory. Obsolete inventory can occur from long holding of inventory. Conversely, production stoppages and

dissatisfied customers can be caused by too little inventory. Inventory holding period is calculated in a similar fashion to Receivables collection period.

Can be calculated as:

$$\text{Inventory holding period} = \frac{\text{Inventory}}{\text{Cost of sales}} \times 365 \text{ days}$$

3.5.1.3.3 Payables payment period (PPP)

Payables payment period measures the average the average time it takes to pay suppliers. Although longer payment periods are good for customer's liquidity, relationships with suppliers can be damaged. This is calculated in a similar way like receivables collection period because the credit purchases amount is usually not available to external business analysts.

Payables payment period is calculated as:

$$\text{Payables payment period} = \frac{\text{Payables}}{\text{Credit purchase (or Cost of slaes)}} \times 365 \text{ days}$$

3.5.1.4 Gearing ratio

Gearing focusses on a company's levels of debt and equity and can assist in measuring its ability to meet long-term debts. There are three ratios also sometimes referred to as risk ratios, positioning ratios or solvency ratios. The three commonly used ratios are Debt to equity ratio, Capital gearing and Interest cover.

3.5.1.4.1 Debt to equity (DTE) ratio

Debt to equity ratio is calculated as:

$$\text{Debt to equity ratio} = \frac{\text{non - current liabilities}}{\text{ordinary shareholders funds}} \times 100\%$$

3.5.1.5 Capital gearing ratios.

Capital gearing, which is also referred to as leverage, focusses on the proportions of owner's capital and borrowed capital used to finance the company.

3.5.1.5.1 Leverage (LEV)

Leverage (LEV) is calculated as follows:

$$\text{Leverage} = \frac{\text{Operating profit}}{\text{Finance costs}}$$

Interest cover (IC) ratio

Interest cover is also called income gearing. It focusses on how many times a company's operating profits exceed its interest payable. The higher the figure, the greater the chance of a company's ability to pay its interests. Any figure exceeding three would be considered safe.

Interest cover can be calculated as follows:

$$\text{Interest cover} = \frac{\text{Operating profit}}{\text{Finance costs}}$$

3.5.2.0 Independent variables

An independent variable is the variable that is predicting or explaining the other variable (Anderson, et al., 2008). An independent variable can also be defined as a variable that can be used to predict or explain changes to another variable by including it in the experiment. Researchers in an experiment systematically set and change independent variables. In an observable study however, the researcher does not change the values of the independent variable but instead just observe. The independent variables are also called experimental factors, input variables or predictor variables (Frost, 2019).

The independent variables are Board size (logBSZ), Board Independence (BI) and Board Gender Diversity (BGD).

3.5.2.1 Board size (log_BS)

To measure Board size, this study employed the natural log of number of directors on the board (Anderson and Reeb, 2003); Jackling and Johl, 2009; Arosa, Iturralde and Maseba, 2010, Munyradadzi and Nirupa, 2016 and Isik and Ince, 2016). Majority of the studies with some exceptions, especially in developed countries have a negative relationship between board size and financial performance (Yermack, 1996; Mark and Kusnadi, 2005; Raheja (2005); Haniffa and Hudaib, 2006; Cheng, 2008; Arosa, Iturralde and Maseda, 2013; Eyenubo, 2013; Bebejet al, 2015; Nathe et al, 2015 and Kojala, et al., 2017).

3.5.2.2 Board independence

The measurement for board independence is the ratio of independent non-executive directors to total number of members on the board.

3.5.2.3 Board gender diversity

The measurement for board gender diversity in the study used the ratio of female directors to the total number of members on the board. As earlier mentioned, independent variables are the ones that predict or explain the variable (dependent). For example, Boards size (independent variable) can be used to predict or explain financial performance (return on assets). Board independence (independent variable) can also explain or predict financial performance (dependent variable). Another example is board gender diversity (independent variable) can predict or explain financial performance (dependent variable). The full model containing all variables is shown after the control variables section.

3.5.3 Control variables

A control variable can be defined as a variable researchers put in a study to control, manipulate, and measure variables in discovery or hypothesis tests for the purpose causal relationship between variables (Frost, 2019).

3.5.3.1 Firm size

Firm Size (logFS) is the only control variable. Firm size is defined as the natural log of total assets. Penrose cited by (Kajola, et al., 2017) states that bigger corporations use economies of scale to positively impact on profitability.

For empirical analysis, this study used descriptive statistics, Pearson correlation analysis and linear multiple regression as the underlying statistical tests. This study will use Stata 14.2 software for the statistical data analysis among the variables and results production.

The regression equation below shows the impact of board composition on financial performance of listed corporations in Zambia. Board composition consists of three independent (or explanatory) variables namely, board size (logBS), board independence (BI) and board gender diversity (BGD).

3.5.4 Multiple Regression Model

A Multiple regression model is an equation that describes the relationship between the dependent variable Y and independent variables (log_BS, BI, BGD) and the error term ε .

Multiple regression analysis is the study of the relationship between the dependent and independent variables (Anderson, et al., 2008). An independent variable is a variable which predicts or explains changes in another variable (dependent) due to its change. An example would be that if we say want to know the impact of board size on financial performance, we will observe the coefficient of board size. A positive coefficient means a positive impact. Therefore, an increase in board would have a positive impact on financial performance. The other two variables on the right side of the equation are firm size (logFS) and the error term (e).

In the Multiple regression model below, financial performance is the dependent represented by the letter Y. In the study, financial performance is represented by fourteen dependent variables namely, Return on capital employed (ROCE), return on equity (ROE), operating profit margin (OPM), asset turnover (AT), gross margin (GM), current ratio (CR), quick ratio (QR), receivables collection period (RCP), inventory holding period (IHP), payables payment period (PPP), debt to equity (DTE), leverage (LEV), interest cover (IC) and return on asset (ROA). It is the only dependent variable. A dependent variable is one that can change if there is a change in the independent variable. The change could be negative or positive depending on the relationship. For example, if board size has a positive impact on corporate financial performance, it means any increase or decrease in board size will have an increase or decrease on corporate financial performance. Multiple regression analysis was performed by testing the impact of board composition on corporate financial performance in the multiple regression model below:

$$Y = \beta_0 + \beta_1 \log BS + \beta_2 BI + \beta_3 BGD + \beta_4 \log FS + \varepsilon$$

Where:

Y = Financial Performance

β_0 = Intercept coefficient

β_1 = Coefficient for Board Size

β_2 = Coefficient for Board Independence

β_3 = Coefficient for Board Gender Diversity

β_4 = Coefficient for Firm Size

$\log BZ$ = Board size

BI = Board Independence

$\log FS$ = Firm Size

ε = Error term

3.5.5 Validity and reliability of data

Research instruments are said to be reliable if they are constant, stable, accurate and predictable (Kumar, 2011). Reliability in research is of critical important because it relates to consistency of measure and accuracy of the instruments of measure (Heale & Twycross, 2015). Alternatively, validity study is a study where findings follow what is designed to be investigated. This concerns whether the instrument is measuring the desired measurements set (Kumar, 2011). The extent to which an idea is accurately measured in a quantitative study is called validity (Heale & Twycross, 2015).

The validity of this study was demonstrated by use of statistical evaluation. The data sources of this research are also valid and reliable. The data came from audited reports and financial statements of listed corporations on the Lusaka Securities and Exchange (LuSE) in Zambia. Top qualified and registered audit firms in Zambia audited the financial statements, expressed their opinions on them and signed off them to confirm that they present a true and fair view in all material respects and management presentation (BPP Learning Media Ltd, 2017). The chief executive officers of respective corporations also sign off the financial statements to authenticate them. The chairmen of respective corporate boards of directors also sign off statements forming a full package of annual reports. The annual reports and financial statements were downloaded from websites of respective corporations' and African financials. The period of the data is 13 years, meaning it is a longer and adequate period compared to previous research such as Banda (2019); and Kabwe, Mwanaumo and Chalu (2021) whose periods were 8 and 7 years respectively.

CHAPTER 4

4.0 FINDINGS

4.1 Introduction

This chapter introduces you to descriptive statistics, specification tests, normality test, graphical normality test: Histogram, Homoscedasticity test, Multicollinearity test, Matrix of correlation, Model selection: fixed effects model or random effects model. Time series data, cross section data, Panel data, Multiple Regression results for ROCE, Hausman test for ROCE, Multiple Regression results for ROE, Hausman test for ROE, Multiple Regression results for AT, Hausman test for AT, Multiple Regression results for OPM, Hausman test for OPM, Multiple Regression results for GM, Hausman test for GM, Multiple Regression results for CR, Hausman test for CR, Multiple Regression results for QR, Hausman results for QR, Multiple Regression results for RCP, Hausman results for RCP, Multiple Regression results for IHP, Hausman test for IHP, Multiple Regression results for PPP, Hausman test for PPP, Multiple Regression results for DTE, Hausman test for DTE, Multiple Regression results for LEV, Hausman test for LEV, Multiple Regression results for IC, Hausman test for IC, Multiple Regression results for ROA, Hausman test for ROA, and Summary of selected models.

4.2 Descriptive statistics

Table 2 below shows descriptive statistics of dependent and independent variables used in the study.

Descriptive Statistics					
Variable	Obs	Mean	Std. Dev.	Min	Max
ROCE	65	.217	.263	-.739	.743
ROE	65	.137	.405	-2.555	1.22
OPM	65	.014	1.906	-9.006	8.893
AT	65	.815	.463	.005	1.977
GM	65	.423	.186	-.287	.856
CR	65	1.471	.758	.048	4.524
QR	65	1.084	.699	.042	4.476
RCP	65	403.414	1066.209	3.278	6122.318
IHP	65	109.23	67.945	1.15	354.689
PPP	65	161.596	190.846	14.21	821.065
DTE	65	.983	1.744	.03	13.094
LEV	65	.539	.274	.096	1.061
IC	65	1249.369	9675.695	-23.439	78048

ROA	65	.059	.111	-.35	.538
log BS	65	2.131	.247	1.792	2.639
BI	65	.547	.182	.167	1
BGD	65	.183	.107	0	.375
log FS	65	14.944	.852	12.482	17.003

Table 2 Descriptive Statistics

As seen in Table 2, the average member number of boards (board size) of the corporations listed on Lusaka Securities and Exchange covered in this study is 2.131. Mean for ROCE, ROA and OPM have been computed as 0.217, 0.137 and 0.14 respectively. Average ratio of independent non-executive directors to total members of the board (Board Independence) in corporations listed on LuSE covered in this study is 0.54, meaning 54% of board members are independent non-executive directors. This clearly shows the desire by corporations to uphold corporate governance practices. Average number of female directors compared to total board members (board gender diversity of corporations on LuSE covered in this study is 0.183. Meaning 18.3% of board members are female. Average Leverage of corporations in the study is 54%.

4.3 Specification Tests

This section looks at model specification tests done on the panel data before the final tests for the appropriate models. Five tests were conducted namely, normality test, homoscedasticity test, multicollinearity test, autocorrelation test and unit root test.

4.3.1 Normality test

It assumed that the error term is normally distributed by the classical normal linear regression model. One reason behind the use of the normality assumption is that the error term(residuals) has an aggregated influence on the regression model (Gujarati & Porter, 2009). Two normality tests done here are the graphical test and skewness and kurtosis tests.

4.3.1.1 Graphical Normality Test: Histogram

The first normality test is graphical by way of a histogram. From the histogram below, it appears that the residuals are normally distributed.

Histogram

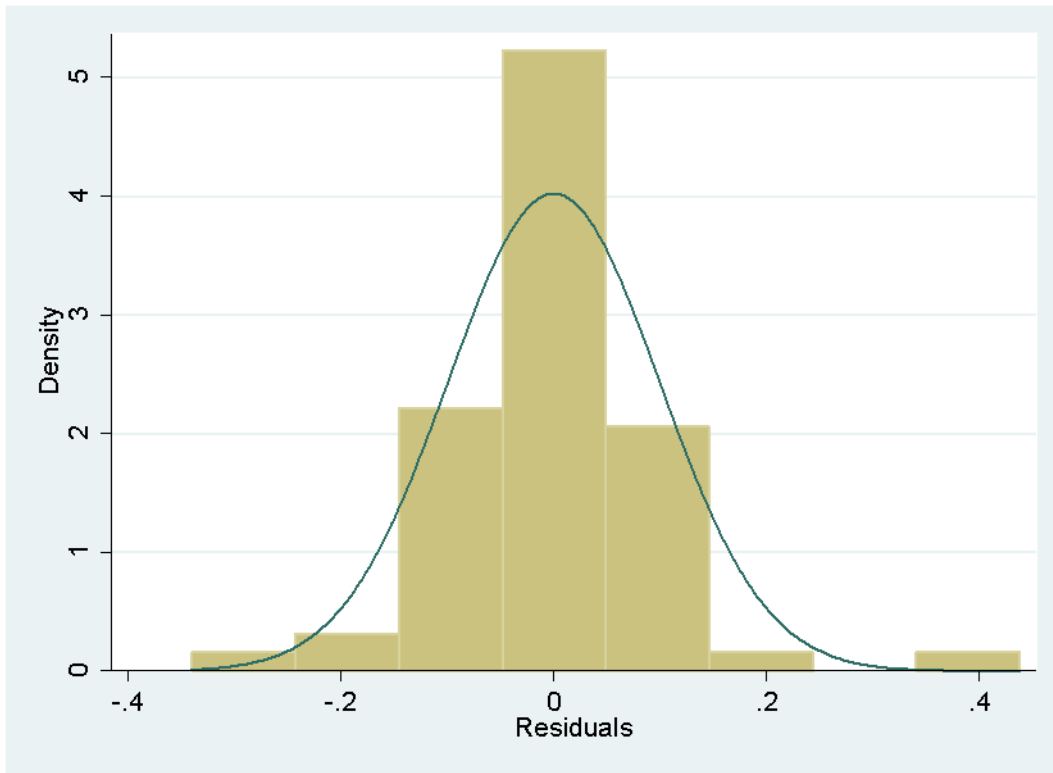


Figure 2: Histogram: Graphical normality test

Skewness and Kurtosis normality test

Skewness measures the probability distribution's symmetry while Kurtosis measures the central peak's height and sharpness. The null hypothesis for normal skewness and kurtosis is that p-value must be greater than 0.05. The null hypothesis is no normality. The individual values for Skewness, Kurtosis and joint p-value of joint normality test are 0.025, 0.00 and 0.000 respectively. This means we fail to accept the null hypothesis and go for the alternative (not normal).

Skewness/Kurtosis tests for Normality
----- joint -----

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj_chi2(2)	Prob>chi2
res	65	0.025	0.000	17.780	0.000

4.3.2 Homoscedasticity test

The assumption of homoscedasticity or constant variance requires that regardless of the value of independent variable(s), the variance of the error or disturbance term remains the same. In other words, this means that the variation around the regression line (the line showing average relationship between dependent and independent variables) neither increases nor decreases with as independent variables vary (Gujarati & Porter, 2009). The opposite of homoscedasticity is heteroscedasticity. The null hypothesis states that there is no heteroscedasticity. The alternative is that there is heteroscedasticity. The p-value of 0.05 means the null hypothesis cannot be rejected.

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of ROA

chi2(1) = 0.11

Prob > chi2 = 0.7384

The Breusch Pagan test above shows a p-value of 0.7384. This indicates that we fail to reject the null hypothesis, meaning that the data set has no heteroscedasticity.

4.3.3 Multicollinearity test

We use the Variance Inflation Factor (VIF) to test for multicollinearity. Table below show results that confirm that there is no high multicollinearity between explanatory variables because no variable has VIF above 10. Therefore, valid inferences would be made in regression analysis performed.

Variance inflation factor		
	VIF	1/VIF
log BS	1.539	.65
BI	1.35	.741
BGD	1.206	.829
log FS	1.163	.86
Mean VIF	1.315	.

Table 3: Matrix of correlation

Matrix of correlation below shows the relationships between all the dependent, independent and control variables. For example, the relationship between Board size (log_BS) and financial performance (ROCE) is -0.023(negative relationship). Between board independence and financial performance (ROCE) is -0.336(negative relationship). However the matrix doesn't show whether the relationship is significant or not. The significance can be checked on regression models in the next sections of model specifications.

Matrix of correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
(1) ROCE	1.000																		
(2) ROE	0.538	1.000																	
(3) OPM	0.336	0.173	1.000																
(4) AT	0.600	0.119	0.187	1.000															
(5) GM	0.314	0.152	-0.143	-0.054	1.000														
(6) CR	0.217	0.085	0.121	0.040	0.299	1.000													
(7) QR	0.291	0.135	0.100	-0.020	0.274	0.872	1.000												
(8) RCP	-0.267	-0.008	0.008	-0.572	-0.420	-0.132	0.037	1.000											
(9) IHP	-0.299	-0.207	-0.242	-0.316	-0.015	0.094	-0.176	0.333	1.000										
(10) PPP	-0.087	-0.035	-0.115	-0.163	0.129	-0.355	-0.112	0.050	-0.249	1.000									
(11) DTE	-0.342	-0.577	-0.036	-0.016	-0.052	-0.344	-0.229	-0.090	-0.159	0.522	1.000								
(12) LEV	0.401	0.076	0.131	0.557	-0.048	-0.397	-0.187	-0.314	-0.473	0.345	0.459	1.000							
(13) IC	-0.014	0.058	0.010	-0.119	0.061	-0.022	0.006	-0.048	-0.023	-0.038	0.090	0.094	1.000						
(14) ROA	0.268	0.535	0.377	-0.101	0.353	0.120	0.121	0.063	-0.089	-0.004	-0.217	-0.028	0.029	1.000					
(15) log_BS	-0.023	-0.058	0.047	0.180	-0.064	-0.025	-0.207	-0.253	-0.015	-0.349	-0.067	0.084	0.217	-0.123	1.000				
(16) BI	-0.336	-0.101	-0.142	-0.417	-0.099	0.109	0.133	0.470	0.327	0.033	-0.329	-0.590	-0.110	0.021	-0.421	1.000			
(17) BGD	0.476	0.176	-0.009	0.375	0.362	0.135	0.208	-0.319	-0.257	0.191	0.007	0.302	-0.120	0.172	-0.302	-0.127	1.000		
(18) log_FS	-0.042	-0.030	-0.174	-0.207	-0.264	-0.246	0.023	0.471	-0.000	0.288	-0.014	0.025	-0.089	-0.334	-0.357	0.248	0.111	1.000	

4.3.4 Choosing the Random effects model or the Fixed effects model.

Background before choosing the appropriate model between random effects or fixed effects. We shall start by the types of data and how we came to where we are. There are four types of data, namely time series data, cross-sectional data, and panel data.

Time series data

A set of observations on the values that a variable takes at different times is called time series data. Such data could be collected at regular time intervals such as annual Gross domestic product (GDP) figures for a country. Another example of time series data would be the collection of annual turnover figures for one company for more than one year.

Cross-sectional data

One or more variables collected at the same time point in time for example population figures during census by the Zambia central statistics is called cross-sectional data. An example cross sectional data would be where one collects annual turnover figures for many different companies for one year.

Panel data

A combination of both time series and cross-sectional data is called pooled data. There are two methods that we have looked at in this section. Ordinary Least Squares, random effects and fixed effects are models we look at in this area. Ordinary least squares method has one problem when considering panel data. It does not consider the heterogeneity nature of units. The units such as individuals, companies and countries are the same in all aspects. We know that this cannot be true. Units differ in so many ways. For example, the total assets, total turnover, profitability etc. of companies are individually different (Gujarati & Porter, 2009). Our study then had to consider a choice between random effects and fixed effects models which accounts for the heterogeneity nature of individual units. For the selection between random effects and fixed effects, the Hausman test was used. The null hypothesis is that the random effects is appropriate (for a p-value greater than 0.05). The alternative is that fixed effect model is appropriate (for a p-value which is less than 0.05).

Our study is about the impact of board composition on financial performance of listed corporations in Zambia. Board composition has three components namely board size (logBS), board independence (BI). Firm size (logFZ) is a control variable. Corporate financial performance has fourteen proxies namely, return on capital employed (ROCE), return on equity (ROE), operating profit margin (OPM), asset turnover (AT), gross margin (GM), current ratio (CR), quick ratio (QR), receivables collection period (RCP), inventory holding period (IHP), payables payment period (PPP), debt-to-equity (DTE) ratio, leverage (LEV), interest cover (IC) and return on asset (ROA).

Fixed effects and Random effects regressions results:

Regression results (Fixed effects)

ROCE	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
log_BS	-.086	.201	-0.43	.672	-.488 .317	
BI	.293	.189	1.55	.126	-.085 .671	
BGD	.522	.245	2.13	.038	.03 1.013	**
log_FS	-.027	.04	-0.67	.508	-.107 .054	
Constant	.543	.799	0.68	.5	-1.058 2.143	
Mean dependent var	0.217		SD dependent var	0.263		
R-squared	0.120		Number of obs	65		
F-test	1.917		Prob > F	0.075		
Akaike crit. (AIC)	-39.499		Bayesian crit. (BIC)	-28.627		

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

Regression results (Random effects)

ROCE	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
log_BS	-.02	.142	-0.14	.889	-.299 .259	
BI	-.407	.181	-2.25	.024	-.761 -.052	**
BGD	1.072	.29	3.70	0	.504 1.64	***
log_FS	-.008	.036	-0.24	.813	-.079 .062	
Constant	.413	.708	0.58	.56	-.974 1.8	
Mean dependent var	0.217		SD dependent var	0.263		
Overall r-squared	0.304		Number of obs	65		
Chi-square	26.241		Prob > chi2	0.000		
R-squared within	0.029		R-squared between	0.990		

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

Hausman (1978) specification test (ROCE)

	Coef.
Chi-square test value	137.449
P-value	0

Fixed effects and Random effects regression results with ROCE as dependent variable were subjected to a Hausman test above and the p-value results show zero (0). This means we reject the null hypothesis (Random model is appropriate) and go for the alternative which says Fixed effects model is appropriate. In the selected fixed effects model, results show that only board gender diversity (BGD) has a positive and significant relationship with financial performance proxied by ROCE at 0.01.

Regression results (Fixed effects)

ROE	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	.136	.469	0.29	.773	-.804	1.075	
BI	.054	.44	0.12	.902	-.828	.937	
BGD	.315	.573	0.55	.585	-.832	1.462	
log_FS	-.044	.094	-0.47	.64	-.231	.143	
Constant	.418	1.866	0.22	.824	-3.321	4.157	
Mean dependent var	0.137		SD dependent var	0.405			
R-squared	0.011		Number of obs	65			
F-test	0.151		Prob > F	0.996			
Akaike crit. (AIC)	70.764		Bayesian crit. (BIC)	81.636			

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

Regression results (Random effects)

ROE	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-.121	.257	-0.47	.637	-.625	.382	
BI	-.227	.327	-0.69	.487	-.867	.413	
BGD	.55	.523	1.05	.293	-.476	1.575	
log_FS	-.022	.065	-0.35	.729	-.149	.104	
Constant	.753	1.277	0.59	.555	-1.75	3.257	
Mean dependent var	0.137		SD dependent var	0.405			
Overall r-squared	0.042		Number of obs	65			
Chi-square	2.611		Prob > chi2	0.625			
R-squared within	0.003		R-squared between	0.980			

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

Hausman (1978) specification test (ROE)

	Coef.
Chi-square test value	1.929
P-value	.749

After running the above two regression with ROE as a dependent variable, a Hausman test show the p-value of 0.749. This means we fail to reject the null hypothesis and conclude that the random effect model is appropriate. However, there are no variables with a significant effect on financial performance. The overall p-value is not below 0.05 and therefore renders the model insignificant.

Regression results (Fixed effects)

AT	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-.145	.221	-0.65	.516	-.588	.299	
BI	.081	.208	0.39	.699	-.336	.497	
BGD	.46	.27	1.70	.094	-.081	1.002	*
log_FS	-.12	.044	-2.73	.009	-.209	-.032	***
Constant	2.794	.881	3.17	.002	1.029	4.559	***

Mean dependent var	0.815	SD dependent var	0.463
R-squared	0.160	Number of obs	65
F-test	2.671	Prob > F	0.015
Akaike crit. (AIC)	-26.807	Bayesian crit. (BIC)	-15.935

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

Regression results (Random effects)

AT	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	.254	.249	1.02	.308	-.234	.741	
BI	-.706	.316	-2.23	.025	-1.325	-.087	**
BGD	1.708	.506	3.37	.001	.716	2.7	***
log_FS	-.073	.063	-1.16	.246	-.195	.05	
Constant	1.434	1.236	1.16	.246	-.988	3.857	

Mean dependent var	0.815	SD dependent var	0.463
Overall r-squared	0.316	Number of obs	65
Chi-square	27.737	Prob > chi2	0.000
R-squared within	0.065	R-squared between	0.605

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

Hausman (1978) specification test (AT)

	Coef.
Chi-square test value	13.927
P-value	.008

After running the two regressions with AT as a dependent variable, the Hausman test revealed a p-value of 0.008. This means we reject the null hypothesis and accept the alternative which states that the fixed effects model is appropriate. The results show that board gender diversity (BGD) has a positive and significant relationship with financial performance at 0.10. Additionally, firm size (log_FS) has a negative and significant relationship with financial performance at 0.01. The p-value shows 0.015 and is less than 0.05 meaning that the model is significant and is suitable. The overall R-squared value is 0.16, meaning the independent variables explain only 16% changes in the dependent variable (corporate financial performance).

Regression results (Fixed effects)

OPM	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-.623	2.207	-0.28	.779	-5.045	3.798	
BI	-.349	2.072	-0.17	.867	-4.499	3.801	
BGD	-1.932	2.695	-0.72	.476	-7.33	3.466	
log_FS	-.476	.44	-1.08	.284	-1.358	.405	
Constant	9.005	8.782	1.03	.31	-8.587	26.597	
Mean dependent var	0.014		SD dependent var	1.906			
R-squared	0.032		Number of obs	65			
F-test	0.457		Prob > F	0.881			
Akaike crit. (AIC)	272.099		Bayesian crit. (BIC)	282.971			

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

Regression results (Random effects)

OPM	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-.619	1.208	-0.51	.608	-2.987	1.748	
BI	-1.46	1.536	-0.95	.342	-4.469	1.55	
BGD	-.586	2.46	-0.24	.812	-5.408	4.236	
log_FS	-.369	.305	-1.21	.226	-.966	.228	
Constant	7.751	6.008	1.29	.197	-4.025	19.526	
Mean dependent var	0.014		SD dependent var	1.906			
Overall r-squared	0.045		Number of obs	65			
Chi-square	2.832		Prob > chi2	0.586			
R-squared within	0.022		R-squared between	0.529			

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

Hausman (1978) specification test (OPM)

	Coef.
Chi-square test value	1.559
P-value	.816

After running the two regressions with OPM as a dependent variable, the Hausman test showed a p-value of 0.816. This means we fail to reject the null hypothesis and state that the Random effect model is appropriate. However, the overall chi squared value of 0.586 makes the overall model insignificant because this value is more than 0.05.

Regression results (Fixed effects)

GM	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
log_BS	.029	.183	0.16	.876	-.337 .395	
BI	.012	.172	0.07	.942	-.331 .356	
BGD	.789	.223	3.54	.001	.342 1.236	***
log_FS	-.04	.036	-1.11	.273	-.113 .033	
Constant	.814	.727	1.12	.268	-.642 2.271	
Mean dependent var	0.423		SD dependent var	0.186		
R-squared	0.200		Number of obs	65		
F-test	3.495		Prob > F	0.002		
Akaike crit. (AIC)	-51.769		Bayesian crit. (BIC)	-40.897		

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

Regression results (Random effects)

GM	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
log_BS	-.05	.106	-0.47	.641	-.258 .159	
BI	.003	.135	0.02	.98	-.261 .268	
BGD	.658	.216	3.04	.002	.234 1.082	***
log_FS	-.072	.027	-2.70	.007	-.125 -.02	***
Constant	1.487	.528	2.82	.005	.452 2.521	***
Mean dependent var	0.423		SD dependent var	0.186		
Overall r-squared	0.228		Number of obs	65		
Chi-square	17.764		Prob > chi2	0.001		
R-squared within	0.183		R-squared between	0.447		

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

Hausman (1978) specification test (GM)

	Coef.
Chi-square test value	-9.398
P-value	1

After running the two regressions with GM as a dependent variable, the Hausman test revealed a p-value of 1. This means we cannot reject the null hypothesis and therefore declare that the Random effects model is appropriate. This model has a Chi square p-value of 0.001 and therefore means the overall model is significant because the value is well below 0.05. Additionally, board gender diversity has a positive and significant relationship with financial

performance proxied by GM at 0.01. Also, firm size has a negative and significant relationship with financial performance at 0.01. Overall R-squared is 0.228, meaning that the independent variables only explain 22.8% of variation in the dependent variable (GM).

Regression results (Fixed effects)

CR	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-.952	.643	-1.48	.144	-2.24	.335	
BI	2.322	.603	3.85	0	1.114	3.531	***
BGD	.932	.785	1.19	.24	-.64	2.503	
log_FS	.051	.128	0.40	.694	-.206	.307	
Constant	1.303	2.557	0.51	.612	-3.82	6.425	
Mean dependent var	1.471		SD dependent var	0.758			
R-squared	0.286		Number of obs	65			
F-test	5.602		Prob > F	0.000			
Akaike crit. (AIC)	111.701		Bayesian crit. (BIC)	122.573			

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

Regression results (Random effects)

CR	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	.048	.459	0.11	.916	-.851	.947	
BI	.916	.583	1.57	.116	-.227	2.059	
BGD	1.427	.934	1.53	.127	-.404	3.259	
log_FS	-.282	.116	-2.44	.015	-.508	-.055	**
Constant	4.818	2.281	2.11	.035	.347	9.289	**
Mean dependent var	1.471		SD dependent var	0.758			
Overall r-squared	0.129		Number of obs	65			
Chi-square	8.856		Prob > chi2	0.065			
R-squared within	0.039		R-squared between	0.463			

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

Hausman (1978) specification test (CR)

	Coef.
Chi-square test value	151.583
P-value	0

After running two regressions above with CR as a dependent variable, a Hausman test

conducted revealed a p-value of zero (0). This means we reject the null hypothesis (Random effects is appropriate) and accept the alternative and state that the Fixed effects model is appropriate. To begin with, the P-value for the model is 0.0000 meaning the model is significant because the value is less than 0.05. Board independence has a positive and significant relationship with financial performance (proxied by CR) at 0.01. The overall R squared is at 0.129 meaning that only 12.9% variation in the dependent variable (corporate financial performance) is explained by the independent variables.

Regression results (Fixed effects)

QR	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig	
log_BS	-.982	.626	-1.57	.122	-2.236	.272	
BI	2.45	.587	4.17	0	1.274	3.627	***
BGD	.685	.764	0.90	.374	-.845	2.215	
log_FS	-.022	.125	-0.17	.864	-.272	.228	
Constant	2.034	2.49	0.82	.417	-2.953	7.022	

Mean dependent var	1.084	SD dependent var	0.699
R-squared	0.293	Number of obs	65
F-test	5.801	Prob > F	0.000
Akaike crit. (AIC)	108.242	Bayesian crit. (BIC)	119.114

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

Regression results (Random effects)

QR	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
log_BS	-.344	.435	-0.79	.429	-1.196	.508
BI	.48	.553	0.87	.385	-.603	1.563
BGD	1.268	.886	1.43	.152	-.467	3.004
log_FS	-.06	.11	-0.55	.585	-.275	.155
Constant	2.217	2.162	1.03	.305	-2.021	6.455

Mean dependent var	1.084	SD dependent var	0.699
Overall r-squared	0.080	Number of obs	65
Chi-square	5.252	Prob > chi2	0.262
R-squared within	0.120	R-squared between	0.037

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

Hausman (1978) specification test (QR)

	Coef.
Chi-square test value	65.359
P-value	0

After running the two regressions above where QR was a dependent variable, a Hausman test above revealed a p-value of zero (0). This means we reject the hypothesis (Random effects is appropriate) and go for the alternative which states that the fixed effects model is appropriate.

The prob>F value is at 0.000 meaning the overall model is significant. Board independence has a significant and positive relationship with financial performance at 0.01. The R squared is at 0.293 meaning only 29.3% of variation in the dependent variable is explained by the independent variables.

Regression results (Fixed effects)

RCP	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
log_BS	31.721	830.338	0.04	.97	-1631.646 1695.088	
BI	1282.249	779.416	1.65	.106	-279.109 2843.608	
BGD	-2410.912	1013.684	-2.38	.021	-4441.564 -380.26	**
log_FS	366.206	165.585	2.21	.031	34.498 697.913	**
Constant	-5396.774	3303.698	-1.63	.108	-12014.876 1221.328	
Mean dependent var	403.414		SD dependent var	1066.209		
R-squared	0.218		Number of obs	65		
F-test	3.902		Prob > F	0.001		
Akaike crit. (AIC)	1043.016		Bayesian crit. (BIC)	1053.888		

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

Regression results (Random effects)

RCP	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
log_BS	-417.533	506.641	-0.82	.41	-1410.53 575.464	
BI	1656.878	644.039	2.57	.01	394.585 2919.171	**
BGD	-3552.89	1031.945	-3.44	.001	-5575.465 -1530.316	***
log_FS	508.816	127.72	3.98	0	258.489 759.143	***
Constant	-6566.487	2519.858	-2.61	.009	-11505.317 -1627.657	***
Mean dependent var	403.414		SD dependent var	1066.209		
Overall r-squared	0.463		Number of obs	65		
Chi-square	51.754		Prob > chi2	0.000		
R-squared within	0.216		R-squared between	0.832		

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

Hausman (1978) specification test (RCP)

	Coef.
Chi-square test value	1.759
P-value	.78

After running two regressions above where RCP was a dependent variable, a Hausman test revealed a p-value of 0.78. This means we cannot reject the null hypothesis which states that the Random effects model is appropriate. The Prob>chi2 value is 0.000, meaning the model is significant. The board independence (BI) has positive and significant relationship with financial performance 0.05. Also, board gender diversity (BGD) has a negative and significant relationship with financial performance at 0.01. Lastly, firm performance (logFS) has a positive

and significant relationship with financial performance at 0.01. The overall r-squared is 0.463, meaning only 46.3% of variation in the dependent variable is explained by the independent variables.

Regression results (Fixed effects)

IHP	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
log_BS	-87.078	60.576	-1.44	.156	-208.426 34.27	
BI	33.042	56.861	0.58	.564	-80.864 146.948	
BGD	-66.015	73.952	-0.89	.376	-214.157 82.128	
log_FS	34.292	12.08	2.84	.006	10.093 58.491	***
Constant	-223.663	241.016	-0.93	.357	-706.475 259.149	
Mean dependent var	109.230		SD dependent var	67.945		
R-squared	0.203		Number of obs	65		
F-test	3.573		Prob > F	0.002		
Akaike crit. (AIC)	702.684		Bayesian crit. (BIC)	713.556		

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

Regression results (Random effects)

IHP	Coef.	St.Err.	t-value	p-value	[95% Conf Interval]	Sig
log_BS	14.086	40.418	0.35	.727	-65.131 93.303	
BI	124.968	51.379	2.43	.015	24.267 225.668	**
BGD	-122.96	82.324	-1.49	.135	-284.312 38.392	
log_FS	-3.476	10.189	-0.34	.733	-23.446 16.495	
Constant	85.335	201.023	0.42	.671	-308.663 479.334	
Mean dependent var	109.230		SD dependent var	67.945		
Overall r-squared	0.159		Number of obs	65		
Chi-square	11.310		Prob > chi2	0.023		
R-squared within	0.011		R-squared between	0.718		

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

Hausman (1978) specification test (IHP)

	Coef.
Chi-square test value	46.117
P-value	0

After running two regressions above with IHP as a dependent variable, a Hausman test revealed a p-value of zero (0). This means we reject the null hypothesis which states that the fixed effects model is appropriate. The prob>F value is 0.002, meaning the model is significant. Among the independent variables, only firm size has a positive and significant relationship with financial performance proxied by IHP at 0.01. R-squared has a value of 0.203, meaning that only 20.3% of variation in the dependent variable is explained by the independent variables.

Regression results (Fixed effects)

PPP	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-335.015	156.317	-2.14	.036	-648.156	-21.875	**
BI	-261.778	146.73	-1.78	.08	-555.715	32.158	*
BGD	228.078	190.833	1.20	.237	-154.206	610.363	
log_FS	-83.714	31.173	-2.69	.01	-146.16	-21.268	***
Constant	2227.958	621.944	3.58	.001	982.055	3473.861	***

Mean dependent var	161.596	SD dependent var	190.846
R-squared	0.240	Number of obs	65
F-test	4.420	Prob > F	0.000
Akaike crit. (AIC)	825.923	Bayesian crit. (BIC)	836.794

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

Regression results (Random effects)

PPP	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-248.604	112.343	-2.21	.027	-468.792	-28.416	**
BI	-152.928	142.81	-1.07	.284	-432.83	126.974	
BGD	93.701	228.824	0.41	.682	-354.786	542.188	
log_FS	45.611	28.321	1.61	.107	-9.897	101.119	
Constant	76.209	558.755	0.14	.892	-1018.931	1171.349	

Mean dependent var	161.596	SD dependent var	190.846
Overall r-squared	0.176	Number of obs	65
Chi-square	12.820	Prob > chi2	0.012
R-squared within	0.008	R-squared between	0.544

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

Hausman (1978) specification test (PPP)

	Coef.
Chi-square test value	248.701
P-value	0

After running two regressions above where PPP was the dependent variable, a Hausman test revealed a p-value of zero (0). This means we reject the null hypothesis (Random effects) and go for the alternative which states that fixed effects is appropriate. The Prob>F value is 0.0000, meaning that the model is significant. Among the dependent variables we firstly found that board size (log_BS) has a negative and significant relationship with financial performance at 0.05. Secondly, board independence has a negative and significant relationship with financial performance at 0.1. Thirdly, firm size has a negative and significant relationship with financial performance at 0.01. R-squared value is at 0.24, meaning only 24% of variation in the dependent variables is explained by the independent variables.

Regression results (Fixed effects)

DTE	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-2.414	1.596	-1.51	.136	-5.611	.784	
BI	-6.762	1.498	-4.51	0	-9.763	-3.76	***
BGD	-.426	1.949	-0.22	.828	-4.33	3.477	
log_FS	-.738	.318	-2.32	.024	-1.375	-.1	**
Constant	20.924	6.35	3.29	.002	8.202	33.645	***
Mean dependent var	0.983		SD dependent var	1.744			
R-squared	0.362		Number of obs	65			
F-test	7.947		Prob > F	0.000			
Akaike crit. (AIC)	229.960		Bayesian crit. (BIC)	240.832			

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

Regression results (Random effects)

DTE	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-2.202	1.025	-2.15	.032	-4.212	-.192	**
BI	-4.62	1.303	-3.54	0	-7.174	-2.065	***
BGD	-2.426	2.089	-1.16	.245	-6.52	1.667	
log_FS	.021	.258	0.08	.934	-.485	.528	
Constant	8.326	5.1	1.63	.103	-1.669	18.322	
Mean dependent var	0.983		SD dependent var	1.744			
Overall r-squared	0.178		Number of obs	65			
Chi-square	13.028		Prob > chi2	0.011			
R-squared within	0.258		R-squared between	0.016			

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

Hausman (1978) specification test (DTE)

	Coef.
Chi-square test value	39.898
P-value	0

After running two regressions above with the DTE as the dependent variable, a Hausman test revealed a p-value of zero (0). This means we reject the null hypothesis (Random effects) and go for the alternative which states that the fixed effects model is appropriate. The Prob>F value is 0.000, meaning that the model is significant. The r-squared is 0.362, meaning that only 36.2% of variation in the dependent variable is explained by the independent variable. Board independence (BI) has a negative and significant relationship with financial performance at 0.01. Also, firm size has a negative and significant relationship with financial performance at 0.05.

Regression results (Fixed effects)

LEV	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-.135	.124	-1.09	.28	-.384	.113	
BI	-.583	.117	-5.00	0	-.817	-.35	***
BGD	.088	.152	0.58	.562	-.215	.392	
log_FS	-.158	.025	-6.38	0	-.208	-.108	***
Constant	3.491	.494	7.07	0	2.502	4.481	***

Mean dependent var	0.539	SD dependent var	0.274
R-squared	0.599	Number of obs	65
F-test	20.885	Prob > F	0.000
Akaike crit. (AIC)	-102.033	Bayesian crit. (BIC)	-91.162

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

Regression results (Random effects)

LEV	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-.09	.135	-0.67	.505	-.354	.175	
BI	-.956	.172	-5.57	0	-1.292	-.62	***
BGD	.465	.275	1.69	.09	-.073	1.004	*
log_FS	.043	.034	1.26	.209	-.024	.109	
Constant	.529	.671	0.79	.431	-.787	1.844	

Mean dependent var	0.539	SD dependent var	0.274
Overall r-squared	0.425	Number of obs	65
Chi-square	44.400	Prob > chi2	0.000
R-squared within	0.167	R-squared between	0.687

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

Hausman (1978) specification test (LEV)

	Coef.
Chi-square test value	-96.348
P-value	1

After running two regressions above with LEV as a dependent variable, a Hausman test revealed a p-value of 1. This means we fail to reject the null hypothesis which declares that the random effects model is appropriate. The Prob>chi2 value is 0.000, meaning the model is significant. The overall r-squared is 0.42, meaning that only 42% of variation in the dependent variable is explained by the independent variable. Board independence has a negative and significant relationship with financial performance at 0.01. Board gender diversity has a negative and significant relationship with financial performance at 0.1.

Regression results (Fixed effects)

IC	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	9061.419	11103.705	0.82	.418	-13181.975	31304.813	
BI	6589.026	10422.753	0.63	.53	-14290.258	27468.31	
BGD	-9015.578	13555.495	-0.67	.509	-36170.498	18139.343	
log_FS	-830.608	2214.293	-0.38	.709	-5266.37	3605.155	
Constant	-7600.53	44178.74	-0.17	.864	-96101.18	80900.12	
Mean dependent var	1249.369		SD dependent var	9675.695			
R-squared	0.034		Number of obs	65			
F-test	0.491		Prob > F	0.858			
Akaike crit. (AIC)	1380.132		Bayesian crit. (BIC)	1391.004			

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

Regression results (Random effects)

IC	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	6791.807	6110.161	1.11	.266	-5183.888	18767.503	
BI	-2354.626	7767.207	-0.30	.762	-17578.072	12868.82	
BGD	-6498.139	12445.411	-0.52	.602	-30890.696	17894.418	
log_FS	-90.774	1540.326	-0.06	.953	-3109.758	2928.21	
Constant	-9392.003	30389.862	-0.31	.757	-68955.037	50171.031	
Mean dependent var	1249.369		SD dependent var	9675.695			
Overall r-squared	0.052		Number of obs	65			
Chi-square	3.276		Prob > chi2	0.513			
R-squared within	0.019		R-squared between	0.553			

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

Hausman (1978) specification test (IC)

	Coef.
Chi-square test value	2.24
P-value	.692

After running two regressions above with IC as a dependent variable, a Hausman test revealed a p-value of 0.692. This means we now fail to reject the null hypothesis which states that Random effects model is appropriate. However, the Prob>chi2 value 0.513, meaning the model is insignificant.

Regression results (Fixed effects)

ROA	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	.061	.113	0.54	.592	-.165	.286	
BI	.026	.106	0.24	.81	-.186	.237	
BGD	.244	.137	1.78	.081	-.031	.52	*
log_FS	-.065	.022	-2.91	.005	-.11	-.02	***
Constant	.848	.448	1.89	.064	-.05	1.745	*

Mean dependent var	0.059	SD dependent var	0.111
R-squared	0.182	Number of obs	65
F-test	3.124	Prob > F	0.005
Akaike crit. (AIC)	-114.754	Bayesian crit. (BIC)	-103.882

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

Regression results (Random effects)

ROA	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
log_BS	-.091	.064	-1.41	.159	-.217	.036	
BI	.041	.082	0.50	.62	-.12	.201	
BGD	.174	.131	1.33	.183	-.082	.431	
log_FS	-.058	.016	-3.55	0	-.089	-.026	***
Constant	1.057	.32	3.30	.001	.43	1.684	***

Mean dependent var	0.059	SD dependent var	0.111
Overall r-squared	0.202	Number of obs	65
Chi-square	15.222	Prob > chi2	0.004
R-squared within	0.149	R-squared between	0.558

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

Hausman (1978) specification test (ROA)

	Coef.
Chi-square test value	-216.393
P-value	1

After running two regressions above with ROA as the dependent variable, a Hausman test revealed a p-value of 1. This means we fail to reject the null hypothesis which states that the Random effects model is appropriate. The Prob>chi2 value is 0.004, meaning that the model is significant. Only firm size has a negative and significant relationship with financial performance at 0.01. The overall r-squared is 0.202, meaning that only 20.2% of variation in the dependent variable is caused by the independent variables.

Summary of selected models

Table 5.1 below shows a summary of selected models which show the relationship between board composition and financial performance. It shows how the independent variables of board composition (Board size (log_BS), Board independence (BI), Board gender diversity (BGD)) and firm size (log_FS) relate with financial performance (proxied by Asset turnover (AT), gross margin (GM), current ratio (CR), quick ratio (QR), receivables collection period (RCP), inventory holding period (IHP), payables payment period (PPP), debt to equity (DTE), leverage (LEV) and return on asset (ROA)). For example, item number 1 in the table shows the fixed effects model in which the relationship between board composition (log_BS, BI, BGD) and financial performance (proxied by AT). Board gender diversity has a positive and significant relationship with financial performance. There is a coefficient number (0.046) Infront of BGD which means that an increase in board gender diversity of 0.46 increases financial performance (proxied by AT) by one (1) unit. Firm size (log_FS) has a coefficient of -0.12 meaning there is a negative relationship between firm size and financial performance. Additionally, for a reduction in firm size (log of Total Assets) of 0.12, there is an increase in financial performance. For board size (log_BS) there is a coefficient of -0.145. it means there is a negative relationship between board size and financial performance and that for every reduction of 0.145 in board size, there is an increase in financial performance by one (1) unit.

Table 5.1 Summary of selected models

No.	Model	Type	Significant variables
1	$AT = 2.794_1 - 0.145 \log_BS_i + 0.081 BI_i + 0.46 BDG_i - 0.12 \log_FS_i + \varepsilon_i$	Fixed effects	BGD@0.1 and log_FS@ 0.01
2	$GM = 1.487_1 - 0.05 \log_BS_i + 0.003 BI_i + 0.685 BDG_i - 0.072 \log_FS_i + \varepsilon_i$	Random effects	BDG@0.01 and log_FS@0.01
3	$CR = 1.303_1 - 0.952 \log_BS_i + 2.322 BI_i + 0.932 BDG_i + 0.051 \log_FS_i + \varepsilon_i$	Fixed effects	BI@0.01

4	$QR = 2.034_1 - 0.982 \log_BS_i + 2.45BI_i$ $+ 0.685BDG_i - 0.022 \log_FS_i$ $+ \varepsilon_i$	Fixed effects	BI@0.01
5	$RCP = -6566.487_1 - 417.533 \log_BS_i$ $+ 1656.878BI_i$ $- 3552.89BDG_i$ $+ 508.816 \log_FS_i + \varepsilon_i$	Random effects	BI@0.05 , BGD@0.01 and log_FS@0.01
6	$IHP = -223.663_1 - 87.078 \log_BS_i$ $+ 33.042BI_i - 66.015BDG_i$ $+ 34.292 \log_FS_i + \varepsilon_i$	Fixed effects	Log_FS@0.01
7	$PPP = 22227.958_1 - 333.015 \log_BS_i$ $- 261.778BI_i$ $+ 228.078BDG_i$ $- 83.714 \log_FS_i + \varepsilon_i$	Fixed effects	Log_BS@0.05 , BI@0.1 and log_FS@0.01
8	$DTE = 20.924_1 - 2.414 \log_BS_i - 6.762BI_i$ $- 0.426BDG_i - 0.738 \log_FS_i$ $+ \varepsilon_i$	Fixed effects	BI@0.01 and log_FS@0.05

Table 4 Summary of selected models: Author's compilation using Stata 14.2 output.

CHAPTER 5

DISCUSSION

5.0 Introduction

This chapter introduces you to summary of findings, conclusion, discussion of results, evaluation of findings, objective, research questions, hypothesis (null), board size and financial performance, board independence and financial performance, board gender diversity and financial performance, board composition and financial performance, firm size and financial performance, recommendations, and suggestions for future study.

5.1 Summary of findings

The table for summarized findings below depicts the relationships between the independent variables and financial performance. It also shows the relationships and levels of significance and type of model chosen. For example, item number 1 shows that board size has a negative and significant relationship with financial performance proxied by PPP at 0.05 using the fixed effects model. The rest of the findings can equally be illustrated in a similar manner. A detailed discussion of finding is in the conclusion section.

Table 5.1 Summary of findings

No.	Independent variables	Relationship with financial performance	Significant/ insignificant	Financial performance proxy	Chosen model
1	Board size	Negative	Significant at 0.05	PPP	Fixed effects
2	Board independence	Positive	Significant at 0.01	CR	Fixed effects
3	Board independence	Positive	Significant at 0.01	QR	Fixed effects
4	Board independence	Negative	Significant at 0.1	PPP	Fixed effects
5	Board independence	Negative	Significant at 0.01	DTE	Fixed effects

6	Board independence	Positive	Significant at 0.05	RCP	Random effects
7	Board gender diversity	Negative	Significant at 0.01	RCP	Random effects
8	Board gender diversity	Positive	Significant at 0.1	AT	Fixed effects
9	Firm size	Positive	Significant at 0.01	RCP	Random effects
10	Firm size	Negative	Significant at 0.01	AT	Fixed effects
11	Firm size	Positive	Significant at 0.01	IHP	Fixed effects
12	Firm size	Negative	Significant at 0.01	PPP	Fixed effects
13	Firm size	Negative	Significant at 0.05	DTE	Fixed effects

Table 5.1 Summary of results: Author's compilation using Stata 14.2 output.

5.2 CONCLUSION

5.2.1 Discussion of results

Board composition consists of three independent variables namely, board size (logBS), board independence (BI) and board gender diversity (BGD). Board size was proxied by the natural log of the number of members on the board of corporations for each of the years of study. Board independence was proxied by the ratio of independent non-executive directors on the board to the total number of board members on the board. Board gender diversity was represented by the ratio of number of female directors on the board to the total number of board members on the board. One control variable was used, namely firm size(logFS) represented by the natural logarithm of total assets per year. On the other hand, financial performance was measured by fourteen variables (dependent) namely, return on capital employed (ROCE), return on asset (ROA) and return on equity (ROE), operating profit margin (OPM), asset turnover (AT), gross margin (GM), current ratio (CR), quick ratio (QR), receivables collection period (RCP), inventory holding period (IHP), payables payment period (PPP), debt to equity (DTE), leverage (LEV) and interest cover (IC).

After Hausman tests on each model, either random effects or fixed effects was selected. However, the fourteen models tested using the Hausman test aggregated to the use of both random effects and fixed effects models.

Under the fixed effects model, the results of the study showed a negative and significant relationship between board size and financial performance (proxied by PPP) at 0.05. These results support the stewardship theory which argues that large boards negatively impact on financial performance (Kalsie & Shrivastav, 2016). The results indicates that smaller boards have a higher financial performance than larger ones. This result is consistent with studies by Lipton and Lorsch (1992), Jensen (1993), Yermack (1996) and Guest (2009) who have criticized the performance of large boards, indicating that problems of poor communication and decision making overwhelm the effectiveness of such groups. Jensen (1993) further stated that “keeping boards small improves their performance.” The reason is that a board which constitute more than 7 or 8 members is likely to function ineffectively and this could easily enable the Chief Executive Officer (CEO) to control it (Jensen, 1993). Similar results were obtained by Shuken et al., (2012); Eyenubo (2013); Shungu et al; (2014); Nath et al.,(2015); Bebeji et al., (2015); and Banda (2019).

Under the fixed effects model, board independence showed a positive and significant relationship with financial performance (proxied by CR and QR) at 0.01. Under the random effects model, results showed that there was a positive and significant relationship between board independence and financial performance (RCP) at 0.05. These results were consistent with those by Semosa (2012); Meyer and Wet (2013); Agyemang et al. (2014); Lin and Chang (2014); Alves (2014); Liu et al. (2015); Reguera-Alvarado and Bravo (2017); and Al-Msiedeen and Afzakur (2018). These results mean that board independence in the form of representation of outside independent directors is an important control mechanism that can add value to the corporation. Agency theory is supported by these results because it argues that the existence of outside independent directors on the board enables the board to monitor any self-interest actions by managers better and reduce agency problems (Ingley and van der Walt, 2003; and Nicholson Kiel, 2007). The appointment of more outside directors does not only provide board independence but it also improves the board’s effectiveness (Fama & Jensen, 1983). The resource dependency theory is also supported by the result because it states that by giving access to necessary resources, outside independent directors play a critical role concerning the environment (Pfeffer & Salancik, 2003).

On the contrary, board independence also had a negative and significant impact relationship with financial performance (proxied by PPP and DTE) at 0.1 and 0.01 respectively. Similar results were attained by Shukeri (2012); Zakaria et al. (2014); and Bansal and Shama (2016). This result could mean that the outside independent directors may not effectively perform their duties due to lack of skills.

Board gender diversity had a positive and significant relationship with financial performance (proxied by AT) at 0.1. Similar results were obtained by Low et al. (2015); Kilic and Kuzey (2016); Reguera-Alvarado et al. (2017); Mumba (2017); Conyon and He (2017); Brahma et al. (2020). This result is an indication that corporate boards should increase number female directors to improve the financial performance. This result supports the mass theory which concerns the levels of female representatives on board of directors (Brahma, et al., 2020).

On the contrary, results showed that board gender diversity had a negative and significant relationship with financial performance (proxied by RCP) at 0.01. Similar results were also attained by Shehata et al. (2017).

Firm size had a positive and significant relationship with financial performance (IHP) at 0.01. On the other hand, firm size had a negative and significant relationship with financial performance (proxied by AT, PPP and DTE) at 0.01, 0.01, and 0.05 respectively. Firm size recorded a positive and significant relationship with financial performance (proxied by RCP) at 0.01.

These results mean an increase in total assets would also increase the financial performance.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter consists of evaluation of findings, recommendations, and suggestion for future study.

6.1 Conclusion

We can conclude that there is a relationship between board composition and financial performance. This has been shown by the existence of relationships of various board composition attributes such as board size, board independence and board gender diversity with financial performance. The following section shows evaluation of findings.

6.1.1 Evaluation of findings

The evaluation of findings consists of the objectives, research questions, hypothesis, board size and financial performance, board independence and financial performance, board gender diversity and financial performance, and firm size and financial performance.

6.1.1.1 Objective

The main objective was to examine whether there is a relationship between board composition and financial performance.

6.1.1.2 Research questions

- (i) How does board size relate with financial performance?
- (ii) How does board independence relate with financial performance?
- (iii) How does board gender diversity relate with financial performance?

6.1.1.3 Hypothesis (Null)

- (i) Board size has no relationship with financial performance.
- (ii) Board independence has no relationship with financial performance.
- (iii) Board gender diversity has no relationship with financial performance.

6.1.1.4 Board size and financial performance

The study results have revealed that board size has a negative and significant relationship with financial performance using the fixed effects model. This has answered the research question and rejected the null hypothesis meaning there is a relationship between board size and financial performance.

6.1.1.5 Board independence and financial performance

The study results have revealed that board independence has a significant relationship with financial performance using both the fixed effects and random effects models. The significant relationships have enabled the answering of the research question and rejection of the null hypothesis meaning that there is a significant relationship between board independence and financial performance.

6.1.1.6 Board gender diversity and financial performance

The study results have revealed that board gender diversity has significant relationships with financial performance using both fixed effects and random effects models. This has answered the research question in affirmation and caused the rejection of the null hypothesis meaning there is a relationship between board gender diversity and financial performance.

6.1.1.7 Board composition and financial performance

The research objective was to examine whether there was a relationship between board composition and financial performance.

With all research questions and hypothesis adequately addressed above, we can therefore infer that the research objective has been equally met. Therefore, we can say that there is a significant relationship between board composition and financial performance.

6.1.1.8 Firm size (control variable) and financial performance

The study findings have revealed that Firm size (log_FS), a control variable, also has a significant relationship with financial performance. However, these are both negative and positive relationships. This has given us a mix of results and therefore is inconclusive.

6.2 Recommendations

The study hereby recommend that companies should have smaller board as this would reduce on agency costs leading to efficiency and better financial performance. However, firms need to continue upholding corporate governance requirements. Notable ones are maintaining a balanced board size with sufficient independent non-executive directors for board independence and board gender diversity. The study recommends an average Board size of below 9 (that is the inverse of 0.9463) for Zambian Listed Corporations.

6.3 Suggestions for future study

This study has limitations, thereby opening avenues for studies to be conducted in the future. Efforts should be directed to study of the effects of other corporate governance mechanisms such as ownership concentration, Board diversity and Board composition on financial performance. There is also the need to increase the study period from the time LuSE was established up to time of study. Further recommendations are the use of unbalanced panel data to enable wider capture of business sectors. This would increase the sample size. Data used in this study were gathered from audited annual reports for corporations listed on LuSE in Zambia limiting the possibility of generalizing the outcome of study to other countries. Researchers from other countries are encouraged to carry out similar studies in their respective countries as this would improve our understanding on this important aspect of corporate governance from a broader perspective.

BIBLIOGRAPHY

- Ciolomic , I.-A. & Beleiu, I. N., 2020. State-Owned Enterprises in the Context of Contemporary Transformations. *Review of International Comparative Management* , 21(2), pp. 177-187.
- Mwanawasa, C., 2016. *Dissertation: A Case Analysis of the viability of the current regulation and enforcement mechanisms of corporate governance in Zambia*, Cape Town: The University of Cape Town.
- Rahman, M. & Saima, F. N., 2018. Efficiency of Board Composition on Firm Performance: Empirical Evidence from listed Manufacturing Firms of Bangladesh. *Journal of Asian Finance, Economics and Business*, 5(2), pp. 53-61.
- Abdullah, H. & Valentine, B., 2009. Fundamental and Ethics Theories of corporate governance. *Middle Eastern Finance and Economics*, 4(1), pp. 88-96.
- Abor, J. & Biekpe, N., 2007. Corporate Governance, Ownership Structure, and Performance of SMEs in Ghana: Implications for Financing Opportunities. *The International Journal of Business in Society*, 7(3), pp. 288-300.
- Akpan, E. O. & Amran, N. A., 2014. Board characteristics and company performance: Evidence from Nigeria.. *Journal of Finance and Accounting*, 2(3), pp. 81-89.
- Alexander, J. A., Fennell, M. L. & Halpern, M. T., 1993. Leadership instability in hospitals: The influence of board-CEO relations and organizational growth and decline. *Administrative Science Quarterly*, pp. 74-99.
- Al-Faryan, M. A. S., 2021. The effect of board composition and managerial pay on Saudi firm performance. *Springer*, Volume 57, pp. 693-758.
- Al-Malkawi , H. A. & Pillai, . R., 2012. Internal Mechanisms of Corporate Governance and Firm Performance: A Review of Theory and Empirical Evidence. *Journal of Modern Accounting and Auditing*, 8(4), pp. 549-568.
- Al-Msiedeen, J. M. & Afzalur , R. S., 2018. *Board Independence and Firm Performance: Evidence from Jordan. Board Independence and Firm Performance: Evidence from Jordan..* Sydney, Australian Academy of Business Leadership.
- Alonso-Bonis, S. & Andres-Alonso, P. D., 2007. Ownership Structure and Performance in large Spanish Companies: Empirical Evidence in the Context of an Edogenous Relation. *Corporate Ownership and Control*, 4(4), pp. 206-216.
- Alves, S., 2014. The effect of board independence on the earnings quality: evidence from portuguese listed companies. *Australasian Accounting. Business and Finance Journal*, 8(3), pp. 23-44.

- Anderson, D. R., Sweeney, D. J. & William, T. A., 2008. *Statistics for Business and Economics*. 10th ed. Mason: Thomson Higher Education.
- Anon., n.d.
- Association of Chartered Certified Accountants(ACCA), 2022. ACCA. [Online] Available at: <https://www.accaglobal.com/hk/en/student/exam-support-resources/fundamentals-exams-study-resources/f2/technical-articles/ratio-analysis.html>
- Ayendele, I. A. & Isichel, E. E., 2013. Corporate Governance Practices and Challenges in Africa.. *European Journal of Business and Management*, 5(4), pp. 51-59.
- Bachiller, P., Giorgino, M. C. & Paternostro, S., 2015. Influence of board of directors on firm performance: Analysis of family and non-family firms. *International Journal of Disclosure and Governance*, 12(3), pp. 230-253.
- Badulescu, D. & Badulescu, A., 2008. *Theoretical Background of Corporate Governance*. Oradea, Oradea University.
- Banda, K., 2013. *The enhancement of corporate governace in Zambia through company Law reform*, Lusaka: The University of Zambia.
- Banda, Z., 2019. *Corporate Governance Structures: The Performance of Zambian Listed Companies*, Bloemfontein: University of the Free State.
- Bebeji, A., Mohammed, A. & Tanko, . M., 2015. The effect of board size and composition on the financial performance of banks in Nigeria. *African Journal of Business Management*, 9(16), pp. 590-598.
- Belkhir, M., 2009. Board of directors' size and performance in banking industry. *International journal of Monagerial Finance*, 5(2).
- Ben-Amar, W., Chang, M. & McIlkenny, P., 2017. Board Gender Diversity and Corporate Response to Sustainability Initiatives: Evidence from the Carbon Disclosure Project. *Journal of Business Ethics* , Volume 142, pp. 369-383.
- Benvolio , J. & Ironkwe, U. I., 2022. Board Composition and Firm Performance of Quoted Commercial Banks in Nigeria. *Business management GPH International hero*, 05 (01), pp. 19-40.
- Bhagat, S. & Black, B., 2001. The non-correlation between board independence and long-term firm performance.. *J. CorP. l*, Volume 27, p. 231.
- Borman , M., 2010. *The Influence of Resource Dependency Tolerance on Interorganisational Alliance Governance*, Sydney: University of Sydney.

- Borman, M., 2010. *The Influence of Resource Dependency Tolerance on Interorganisational Alliance Governance*. Sydney: University of Sydney.
- Boyd, B., 1995. CEO duality and firm performance: A contingency model. *Strategic Management Journal*, 16(4), pp. 301-312.
- BPP Learning Media Ltd, 2017. *ACCA approved study text Paper P7 Advanced Audit and Assurance (International)*. 10th ed. London: BPP Learning Media Ltd.
- Brahma, S., Nwafor, C. & Boateng, A., 2020. Board gender diversity and firm performance: The UK evidence. *International Journal of Finance & Economics*, 26(4), pp. 5704-5719.
- Brierly Price Prior, 2013. *Chartered Institute of Management Accountant (CIMA): Strategic Paper E3 Enterprise Strategy*. London: BPP Learning Media.
- Brown, W. A., 2005. Exploring the association between board and organizational performance in nonprofit organizations. *Non Profit management and leadership*, 15(3), pp. 317-339.
- Bryman, A., 2004. *Social Research Methods*. Second ed. Ontario: Oxford University Press Ltd.
- Chartered Institute of management Accountants (CIMA), 2013. *Enterprise Performance Management - Strategic Paper E3 Enterprise Strategy*. London: BPP.
- Chen, M. Y., 2014. Determinants of corporate board structure in Taiwan.. *International Review of Economics & Finance*, Volume 32, pp. 62-78..
- Chikuta, S., 2020. *Effect of corporate governance on the financial performance of State-owned enterprises in Zambia*, Lusaka: The University of Zambia.
- Chulu, J. M., 2006. *Regulating board-level corporate governance in public companies in Zambia: a multi-method study (Doctoral dissertation, University of Exeter)*., s.l.: University of Exeter.
- Coase, R. H., 1937. The Nature of the Firm. *Economica*, 4(16), pp. 386-405.
- Coleman, A. K. & Biekpe, N., 2006. Corporate Governance And Financing Choices Of Firms: A Panel Data Analysis.. *South African Journal of Economics*, 74(4), pp. 670-680.
- Collison, D., Cross, S., Ferguson, J. & Power, D., 2011. *Shareholder Primacy in UK Corporate Law: An Exploration of the Rationale and Evidence*., s.l.: s.n.
- Conyon, M. J. & He, L., 2017. Firm performance and boardroom gender diversity: A quantile regression approach. *Journal of Business Research*, Volume 79, pp. 196-211.
- Daily, C. M., Dalton, D. R. & Canella, A. A., 2003. Corporate Governance : Decades of Dialogue and Data.. *Academy of Management Review*, 28(3), pp. 371-382.
- Davis, J., Schoorman, F. & Donaldson, L., 1997. Toward a Stewardship Theory of Management. *Academy of Management Review*, 22(1), pp. 20-47.

- Dehaene, A., De Vuyst, V. & Ooghe, H., 2001. Corporate performance and board structure in Belgian companies. *Long range planning*, 34(3), pp. 383-398.
- Donaldson, L. & Davis, J., 1991. Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns. *Academy of Management Review*, 1(1), pp. 65-78.
- Dzingai, I. & Fakoya, M. B., 2017. Effect of Corporate Governance Structure on the Financial Performance of Johannesburg Stock Exchange (JSE)-Listed Mining Firms. *Sustainability*, 9(867), pp. 1-15.
- Emile Woolf, 2010. *ACCA Paper P2 Corporatel Reporting (International)*. Berkshire: Emile woolf Publishing Limited.
- Eyenubo , S. A., 2013. The impact of bigger board size on financial performance of firms: The Nigerian experience. *Journal of Research in International Business and Management*, 3(3), pp. 85 - 90.
- Fama, E. F. & Jensen, M. C., 1983. Separation of Ownership and Control. *Journal of Law and Economics*, 26(1), p. 301–325.
- Feizizadeh, A., 2012. Corporate Governance: Frameworks. *Indian Journal of Science and Technology*, 5(9), pp. 353-361.
- Ferede, Y., 2012. *The Impact of Corporate Governance Mechanisms on Firm's Financial Performance: Evidence from Commercial Banks in Ethiopia.*, Addis Ababa: Addis Ababa University.
- Fernández-Temprano, M. A. & Tejerina-Gaite, F., 2020. Types of director, board diversity and firm performance.. *The International Journal of Business in Society*, 20 (2), pp. 324-342.
- Francis, B. B., Hasan, I. & Wu, Q., 2012. Do corporate boards matter during the current financial crisis?. *Review of Financial Economics*, 21(2), pp. 39-52.
- Freeman, R. E., 2010. *Strategic management: A stakeholder approach.*. Cambridge: Cambridge university press..
- Freeman, R., Wicks , A. & Parmar, B., 2004. Stakeholder Theory and The Corporate Objective Revisited. *Organisation Science*, 15(3), pp. 364-369.
- Friedman, M., 1970. *The Social Responsibility of Business is to Increase Its Profits.*, New York: The New York Times Magazine.
- Frost, J., 2019. *Introduction to Statistics: An intuitive guide for analyzing data and unlocking discoveries.* 1st ed. s.l.:statisticsbyjim.com.
- Fuzi, S. F. S., Halim, S. A. A. & Julizaerma, M. K., 2016. Board independence and firm performance. *Procedia Economics and Finance*, Volume 37, pp. 460-465.

- Gill, M. S., Vijay, S. & Jha, S., 2009. Corporate Governance Mechanisms and Firm Performance: A Survey of Literature. *The Icfai University Journal of Corporate Governance*, 8(1), pp. 7-21..
- Goodstein, J., Gautam, K. & Boeker, W., 1994. The effects of board size and diversity on strategic change. *Strategic management journal*, 15(3), pp. 241-250.
- Gregory, H. & Simms, M., 1999. *Corporate Governance: What it is and Why it Matters*. Durban: International Anti-Corruption Conference.. Durban, s.n.
- Grossi, G., Papenfuß, U. & Tremblay, M. S., 2015. Corporate governance and accountability of state-owned enterprises: Relevance for science and society and interdisciplinary research perspectives. *International Journal of Public Sector Management*, 28(4/5), pp. 274-285.
- Guest, P. M., 2009. Impact of Board Size on Financial Performance: Evidence from the UK. *The European Journal of Finance*, 15(4), pp. 385-404.
- Gujarati, D. N. & Porter, D. C., 2009. *Basic Econometrics*. 5th ed. New York: Mc Graw Hill Education.
- Hanjalika, N. & Mwanza, B. G. M., 2022. An Assessment of the Implementation of Corporate Governance Values in Non-Governmental Organizations in Zambia. Available at SSRN 4194078.. *European Modern Studies Journal*, 6(4), pp. 18-32.
- Harbi, A. I., 2021. *Influence of board composition of financial performance of commercial banks in Kenya*, Nairobi: University of Nairobi.
- Heale, R. & Twycross, A., 2015. Validity and reliability in quantitative studies. *Evidence-based nursing*, 18(3), pp. 66-67.
- Hickson, C. & Turner, J., 2005. The Genesis of Corporate Governance: Nineteenth- Century Irish Joint-Stock Banks. *Business History*, 47(2), pp. 174-189.
- Htay, S. N. & Salman, S. A., 2013. Transaction Cost Theory, Political Theory and Resource Dependency Theory in The Light of Unconventional Aspect. *IOSR Journal Of Humanities And Social Science*, 12(5), pp. 89-96.
- Htay, S. N. & Salman, S. A., 2013. Transaction Cost Theory, Political Theory and Resource Dependency Theory in The Light of Unconventional Aspect.. *IOSR Journal of Humanities and Social Science*, 12(5), pp. 89-96.
- Ingle, C. B. & van der Walt, N. T., 2003. Board configuration: building better boards. *Corporate Governance*, 3(4), pp. 5-17.
- Institute of Directors of Southern Africa (IoDSA), 2009. *King Code of Governance for SouthAfrica 2009*, Johannesburg: Institute of Directors Southern Africa.

- Institute of Directors of Southern Africa (IoDSA), 2016. *King IV Report on Corporate Governance in South Africa.*, Johannesburg: Institute of Directors Southern Africa (IoDSA).
- Isik, O. & Ince, . A. R., 2016. Board size, board composition and performance: an investigation on Turkish Banks. *International Business Research*, 9(2), pp. 74- 84.
- Jensen, M. C. & Meckling, W. H., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, Elsevier*, 3(4), pp. 305-360.
- Johl, S. K., Kaur, S. & Cooper, B. J., 2015. Board characteristics and firm performance: Evidence from Malaysia public listed firms. *Journal of Economics*, 3(2), pp. 239-243.
- Kabamba, C., 2020. *Lusaka Star*. [Online] Available at: <https://lusakastar.com/news/standard-chartered-closes-five-branches-opts-to-go-digital> [Accessed 19 May 2023].
- Kabwe, M., Mwanaumo, E. & Chalu, H., 2021. "Effect of corporate governance attributes on IFRS compliance: evidence from a developing country", *Corporate Governance. Emerald*, 21(1), pp. 1-22.
- Kalsie, A. & Shrivastav, S. M., 2016. Analysis of Board Size and Firm Performance: Evidence from NSE Companies Using Panel Data Approach. *Indian Journal of Corporate Governance*, 9(2), pp. 148-172.
- Kambobe, C., 2017. *Investigating the Causes and Effects of Weak Corporate Governance that Hinder successful performance of African National Development Banks: "A Case Study of Development Bank of Zambia"*, Cape Town: University of Cape Town.
- Kanyama, C., 2017. *The Chartered Governance Institute UK & Ireland*. [Online] Available at: <https://www.cgi.org.uk/knowledge/governance-and-compliance/features/zambia-from-nationalisation-to-corporate-governance> [Accessed 15 May 2023].
- Kastlunger, B., Lozza, E., Kirchler, E. & Schabmann, A., 2013. Powerful authorities and trusting citizens: The Slippery Slope Framework and tax compliance in Italy.. *Journal of Economic psychology*, Volume 34, pp. 36-45.
- Katemena, R., 2020. *Analysis of the role of corporate governance in combating financial corruption in state-owned enterprises of Zambia: The case of Zampost*, Lusaka: Cavendish University Zambia.

- Khan, M. J., Kamran, M. & Imran, M., 2020. Impact of Ownership Structure and Board Composition on Firm Performance in Banking Sector of Pakistan. *Journal of Banking and Finance Management*, 1(3), pp. 1-11.
- Kiel, G. C. & Nicholson, G. J., 2003. Board Composition and Corporate Performance: how the Australian experience informs contrasting theories of corporate governance. *Blackwell Publishing*, 11(3), pp. 189-205.
- Kılıc, M. & Kuzey, C., 2016. The effect of board gender diversity on firm performance: evidence from Turkey.. *Gender in management: International Journal*, 31(7), pp. 434-455..
- Klein, A., 1998. Firm performance and board committee structure.. *The journal of law and Economics*, 41(1), pp. 275-304.
- Krivogorsky, V., 2006. .Ownership, board structure, and performance in continental Europe. *The international journal of accounting*, 41(2), pp. 176-197.
- Kumar, R., 2011. *Research methodology: A step by step guide for beginners*. 3rd ed. London: SAGE Publications Ltd.
- Kyereboah-Coleman, A., 2007. *Corporate Governance and Firm Performance in Africa: A Dynamic Panel Data Analysis. International Conference on Corporate Governance in Emerging Markets..* Istanbul, Global Corporate Governance Forum and Asian Institute of Corporate Governance.
- Kyereboah-Coleman, A., 2007. *Corporatae Governance and Firm Performance in Africa: A Dynamic Panel Data Analysis. International Conference onCorporate Governance in Emerging Markets.* Istanbul, Global CorporateGovernance Forum and Asian Institute of Corporate Governance.
- Lan, L. L. & Heracleous, L., 2010. Rethinking Agency Theory: The View from Law. *Academy of Management Review*, 35(2), pp. 294-314.
- Leedy , P. D. & Ormrod, J. E., 2021. *Practical Research: Planning and Design*. 12th ed. Essex: Pearson Education Limited.
- Leung, S., Richardson, G. & Jaggi, B., 2014. Corporate board and board committee independence, firm performance, and family ownership concentration: An analysis based on Hong Kong firms. *Journal of Contemporary Accounting & Economics*, 10(1), pp. 16-31.
- Liu, Y., Miletkov, M. K., Wei, Z. & Yang, T., 2015. Board independence and firm performance in China. *Journal of corporate Finance*, Volume 30, pp. 223-244.
- Lorsch, J. W. & MacIver, E., 1989. *Pawns or Potentates: The Reality of America's Corporate Boards.* Boston: Harvard Business School.. Boston, s.n.

- Low, D. C., Roberts, H. & Whiting, R. H., 2015. Board gender diversity and firm performance: Empirical evidence from Hong Kong, South Korea, Malaysia and Singapore. *Pacific-Basin Finance Journal*, 35(Part A), pp. 381-401.
- Luputa, S. & Mwanza, J., 2022. The Ideal Corporate Governance Model for State Owned Enterprises in Zambia. *Open Journal of Social Sciences*, 10(11), pp. 419-440.
- Maimbo, S. M., 2002. The Diagnosis and Prediction of Bank Failures in Zambia. *Development Policy Review*, 20(3), pp. 261-278.
- Maitland, E., Nicholas, S. & Boyce, G., 2000. *The Economics of Governance: Transaction Cost Economics and New Institutional Economics*. New Castle: New Castle University.
- Malhotra, D. K., Poteau, R. R. & Fritz, J. J., 2013. Does Corporate Governance Impact Corporate Performance? An Analysis of DOW Thirty stocks. *International Journal of Business and Economics Perspectives*, 8(8), pp. 62-75.
- Malik, M. et al., 2014. Role of board size in corporate governance and firm performance applying Pareto approach, is it cultural phenomena?. *Journal of Applied Business Research(JABR)*, Volume 5, pp. 1395-1406.
- Marinova , J., Plantenga, J. & Remery, C., 2016. Gender diversity and firm performance: Evidence from Dutch and Danish boardrooms. *The International Journal of Human Resource Management*, 27(15), pp. 1777-1790.
- Melyoki, L. L., 2005. *Determinants of Effective Corporate Governance in Tanzania*, Enschede: University of Twente.
- Millon, D., 2013. Radical Shareholder Primacy. *University of St Thomas Law Journal*, 1(1), pp. 1013-1044.
- Mintzberg, H., 1983. The power game and the players. *Classics of organization theory*, Volume 6, pp. 334-341.
- Mishra, A. S. & Bhattacharya, S., 2011. The Linkage Between Financial Crisis and Corporate Governance: A Literature Review. *The IUP Journal of Corporate Governance*, 10(3), pp. 71-84.
- Mulela, C., 2013. *A look at Directors duties and the role of the Board in Implementing good Governance practices in Zambian listed Companies (Doctoral dissertation)*., Lusaka: The University of Zambia.
- Mulenga, C., 2014. *Enhanced transparency in Zambian listed Companies: The case for risk Management and Risk Disclosure (Doctoral dissertation)*., Lusaka: The University of Zambia.

- Mumba, B., 2017. *Board Gender Diversity and Firm Performance: An Empirical Analysis of Panel Data from Companies Listed on the Lusaka Stock Exchange*, Lusaka: University of Zambia.
- Muriithi, E., 2011. *Relationship between corporate governance practices and financial performance of investment banks in Kenya. Unpublished MBA Project.*, Nairobi: University of Nairobi.
- Mwape, A., 2022. The Impact of Poor Corporate Governance on the Effectiveness of Internal Audit at the Road Development Agency (RDA) in Zambia. *Open Journal of Business and Management*, 10(5), pp. 2325-2365.
- Naciti, V., 2019. Corporate governance and board of directors: The effect of a board composition on firm sustainability performance. *Journal of Cleaner Production*, Volume 237.
- Nath, S. D., Islam, S. & Saha, A. K., 2015. Corporate board structure and firm performance: the context of pharmaceutical industry in Bangladesh. *International Journal of Economics and Finance*, 7(7), pp. 106 - 115.
- Nguyen, P., Rahman, N., Ong, A. & Zhao, R., 2016. Board size and firm value: evidence from Australia. *Journal of Management & Governance*, , Volume 20, pp. 851-873.
- Nicholson, G. J. & Kiel, G. C., 2007. Can directors impact performance? A case- based test of three theories of corporate governance. *Corporate governance: An international review*, 15(4), pp. 585-608.
- Nuryama, N., 2012. Influence of Corporate Governance Practices on the Company's Financial Performance. *Journal of Global Business and Economics*, 5(1), pp. 1-18.
- Ongore, V. O., K'Obonyo, P. O., Ogutu, M. & Bosire, E. M., 2015. Board Composition and Financial Performance: Empirical Analysis of Companies Listed at the Nairobi Securities Exchange. *International Journal of Economics and Financial Issues*, 5(1), pp. 23-43.
- Pandya, H., 2011. Corporate Governance Structures and Financial Performance of Selected Indian Banks. *Journal of Management and Public Policy*, 2(2), pp. 4-21.
- Peters, G. T. & Bagshaw, K. B., 2014. *Global Journal of Contemporary Research in Accounting, Auditing and Business Ethics (GJCRA). An online International Research Journal (ISSN:2311)*, 1(2), pp. 103-128.
- Pettet, B., 2001. *Company Law*. London: Longman Publishing.
- Pfeffer, J., 1972. Size and composition of corporate boards of directors: The organization and its environment. *Administrative science quarterly*, pp. 218-228.

Pfeffer, J., 1972. Size and composition of corporate boards of directors: The organizational and its environment.. *Administrative Science Quarterly* , Volume 17, pp. 218-229.

Pfeffer, J. & Salancik, G. R., 1978. *A resource dependence perspective. In Intercorporate relations. The structural analysis of business*, Cambridge: Cambridge University Press..

Pfeffer, J. & Salancik, G. R., 2003. *The external control of organizations: A resource dependence perspective..* s.l.:Stanford University Press..

Provan, . K. G., 1980. Board power and organizational effectiveness among human service agencies. *Academy of Management journal*, 23(2), pp. 221-236.

Qadorah, A. A. & Fadzil, F. H., 2018. The relationship between board size and CEO duality and firm performance: Evidence from Jordan. *International Journal of Accounting, Finance and Risk Management* , 3(3), pp. 16-20.

Rashid, A., 2009. *Board composition, board leadership structure and firm performance: Evidence from Bangladesh. In Proceedings of the 2009 AFAANZ Conference. Accounting & Finance Association of Australia and New Zealand..* s.l., s.n.

Rashid, A., 2018. Rashid, A., 2018. Board independence and firm performance: Evidence from Bangladesh.. *Future Business Journal*, 4(1), pp. 34-49.

Rashid, A., Fairuz, R. & Husein, Z., 2010. A new perspective on board composition and firm performance in an emerging market.. *Corporate Governance: The international journal of business in society.*, 10(5), pp. 647-661.

Rebeiz, K. S. & Salameh, Z., 2006. Relationship between Governance Structure and Financial Performance in Construction. *Journal of Management in Engineering*, 22(1), pp. 20-26.

Reguera-Alvarado, N. & Bravo, F., 2017. The effect of independent directors' characteristics on firm performance: Tenure and multiple directorships. *Research in International Business and Finance*, Volume 41, pp. 590-599.

Reguera-Alvarado, N., de Fuentes, P. & Laffarga, J., 2017. Does board gender diversity influence financial performance? Evidence from Spain. *Journal of Business Ethics.*, Volume 141, pp. 337-350.

Rwegasira, K., 2000. Corporate Governance in Emerging Capital Markets: whither Africa?. *Corporate Governance.*, 8(3), pp. 258-267.

Salacuse, J., 2004. Corporate Governance in the New Century. *Company Lawyer*, 25(3), pp. 69-83.

- Salami, O. L., Johl, S. K. & Ibrahim, M. Y., 2014. Holistic Approach to Corporate Governance: A Conceptual Framework. *Global Business and Management Research. An International Journal*, 6(3), pp. 251-255.
- Saravia, J. A. & Chen, J. J., 2008. *The Theory of Corporate Governance: A Transaction Cost Economics - Firm Lifecycle Approach*. Surrey: University of Surrey.
- Sarbah, A. & Xiao, W., 2015. Good Corporate Governance Structures: A Must for Family Business. *Open Journal of Business and Management*, 3(1), pp. 40-57.
- Saunders, M., Lewis, P. & Thornhill, A., 2009. *Research methods for business students*. 5 ed. Essex, England: Pearson education.
- Saunders, M. N. K., Lewis, P. & Thornhill, A., 2019. *Research Methods for Business Students*. 8th ed. New York: Pearson Education.
- Shehata, N., Salhin, A. & El-Helaly, M., 2017. Board diversity and firm performance: evidence from the UK SMEs. *Applied Economics*, 49(48), pp. 4817-4832.
- Shikaputo, G. M. C., 2013. *Doctor of Philosophy Thesis: Stakeholder perspectives on corporate governance and accountability for development in Zambia*, s.l.: University of Dundee.
- Shikaputo, M., Burton, B. & Dunne, T., 2017. University of Dundee: The Nature and Potential of Corporate Governance in Developing Countries. *Accounting, Auditing and Accountability Journal*, pp. 1-47.
- Sikazwe, C. K., 2014. *Is the corporate governance law applicable to Zambian banks and financial institutions adequately promoting good corporate governance? (Master's thesis, University of Cape Town)*, Cape Town: The University of Cape Town.
- Smallman, C., 2004. Exploring Theoretical Paradigm in Corporate Governance. *International Journal of Business Governance and Ethics*, 1(1), pp. 78-94.
- Smith, A., 1776. *The Wealth of Nations*. London: s.n.
- Stout, L. A., 2003. The Toxic Side Effects of Shareholder Primacy. *University of Pennsylvania Law Review*, 161(7), pp. 2002-2023.
- Tadelis, S. & Williamson, O., 2010. *Transaction Cost Economics*. Berkeley: s.n.
- Transparent International Zambia, 2022. *An analysis of the 2021 Auditor General's Report*, Lusaka: Transparency International Zambia.
- Topal, Y. & Dogan, M., 2014. Impact of Board Size on Financial Performance: The Case of BIST Manufacturing Industry. *International Journal of Business Management and Economic Research*, Volume 5(4), pp. 74-79.

- Ulrich, D. & Barley, J., 1984. Perspectives in organizations: Resource dependency, efficiency, and population.. *Academy of Management Review*, 9(3), pp. 471-484.
- Vaidya, P. N., 2019. Board Size and Firm Performance: A Study on BSE 100 Companies. *Journal of Management (JOM)*, 6(3), pp. 117-123.
- Van Ness, R. K., Miesing, P. & Kang, J., 2009. Understanding Governance and Corporate Boards: Is Theory a Problem?. *European Journal of Management* , 7(9), pp. 186-199.
- Vinten, G., 2001. Shareholder versus stakeholder - Is there a Governance Dilema?. *Corporate Governance*, 9(1), pp. 36-47.
- Vintilă, G. & Gherghina, Ș. C., 2012. An Empirical Investigation of the Relationship between Corporate Governance Mechanisms, CEO Characteristics and Listed Companies' Performance. *International Business Research*, 5(10), pp. 175-191.
- Wallace, J., 2003. Value Maximisation and Stakeholder Theory: Compatible or Not?. *Journal of Applied Corporate Finance*, 15(3), pp. 120-127.
- Waweru, N., 2014. Determinants of quality corporate governance in Sub-Saharan Africa: evidence from Kenya and South Africa.. *Managerial Auditing Journal.*, 29(5), pp. 455-485.
- Welch, E., 2003. The Relationship between Ownership Structure and Performance in Listed Australian Companies. *Australian Journal of Management*, 28(3), pp. 287-305.
- West, A., 2006. Theorising South Africa's Corporate Governance.. *Journal of Business Ethics*, 68(1), pp. 433-448.
- Wetukha, P. A., 2013. *The relationship between board composition and financial performance of listed firms at the Nairobi Securities Exchange (Doctoral dissertation, University of Nairobi)*, Nairobi: University of Nairobi.
- Yermack, D., 1996. Higher market valuation of companies with a small board of directors. *Journal of Financial Economics* , Volume 40, pp. 185-211.
- Yusoff , W. F. & Alhaji, I. A., 2012. Insight of Corporate Governance Theories. *Journal of Business and Management*, 1(1), pp. 52-63.
- Yusoff, W. F. & Alhaji, I. A., 2012. Insight of Corporate Governance Theories. *Journal of Business and Management*, 1(1), pp. 52-63.
- Zahra , S. A. & Pearce II, J. A., 1989. Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, Volume 15, pp. 291-334.
- Zahra, S. A. & Pearce II, J. A., 1989. Boards of Directors and Corporate Financial Performance: A Review and Intergrative Model. *Journal of Management*, Volume 15, pp. 291-334.

Appendix A: Work Schedule (2020 to 2021)

Process	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Reviewing Articles, www, Books	XXX											
Structuring Research Proposal and writing		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XX		
Ethical Clearance											XXX	
Data Collection											XXX	
Data Processing											XXX	
Data Conversion											XXX	
Data Analysis											XXX	
System Designing											XXX	
Presentation of Report and Submitting												XXX
Current status											XXX	

Appendix B: Research Budget (Zambian Kwacha)

Budget Item	No. of Items	Cost per Item	Total Cash Cost	Notes
Ethical Clearance fees to DRGS	1	1,000	1,000	
Photocopying and binding ethical application documents	5	50	250	
Internet Bundles for research and downloads	1	600	600	
Airtime for Phone calls to corporations for followups	1	500	500	
Other miscellaneous costs	1	500	500	
Total			2,850	
https://researchwhisperer.org/2014/10/07/simple-research-budget/				