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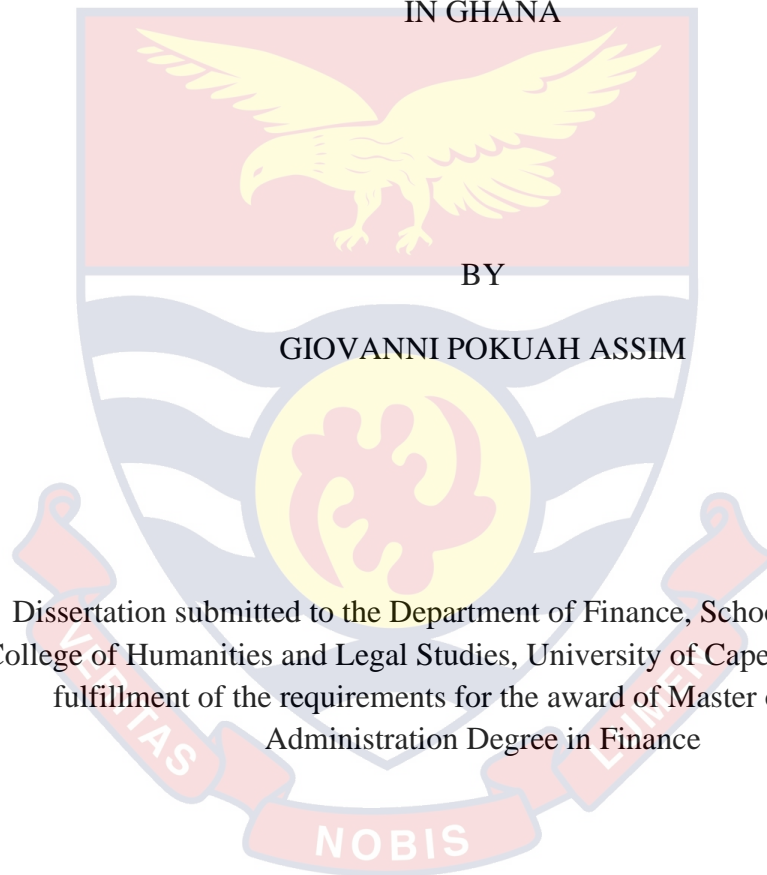
CORPORATE GOVERNANCE AND AGENCY COST OF LISTED FIRMS



2021

UNIVERSITY OF CAPE COAST

CORPORATE GOVERNANCE AND AGENCY COST OF LISTED FIRMS
IN GHANA



Dissertation submitted to the Department of Finance, School of Business,
College of Humanities and Legal Studies, University of Cape Coast, in partial
fulfillment of the requirements for the award of Master of Business
Administration Degree in Finance

MAY 2021

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's signature..... Date.....

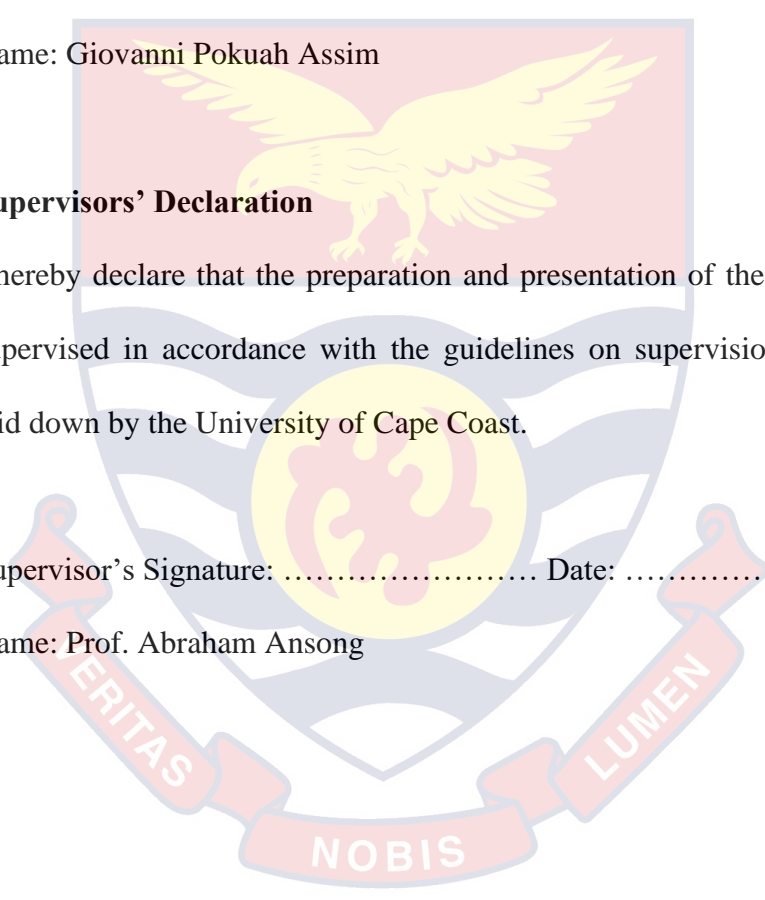
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Supervisors' Declaration

I hereby declare that the preparation and presentation of the dissertation was supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature: Date:

Name: Prof. Abraham Ansong



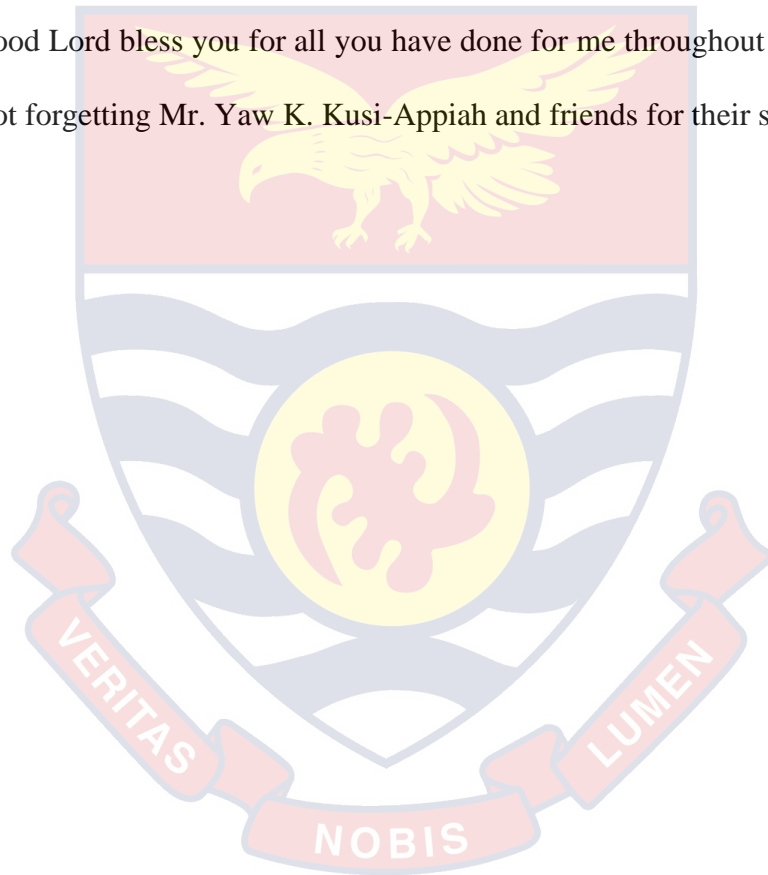
ABSTRACT

Corporate governance has been emphasized in empirical literature and is now gaining roots in response to initiatives by some stakeholders such as the Ghana Institute of Directors. Therefore, this study sought to examine the effect of corporate governance on agency cost of listed companies on the Ghana Stock Exchange Market. A review of empirical literature shows that there exists a negative relationship between corporate governance and agency cost. The study was based on the positivism research philosophy and the quantitative research approach. The study employed the Hausman test and used the random effect models as the tool to analyse the data obtained. By employing 23 non-financial firms out of 41 firms listed on the GSE, the study found an inverse relationship between three corporate governance mechanisms (i.e., Board Size, Board Independence and Ownership Concentration) and agency cost. The study recommends that, to enhance the level of stakeholder confidence in the company and its management, the board size could be a mechanism to minimize agency cost. Also, board independence must be strengthened in order to reduce agency cost. Finally, large block shareholders should take the center stage in ensuring that agency cost is minimized.

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To my parents, Mr. & Mrs. Assim and the Assim family, I say may the good Lord bless you for all you have done for me throughout my education — not forgetting Mr. Yaw K. Kusi-Appiah and friends for their support and help.



DEDICATION

To Late Dr. Otuo Serebuor Agyemang



TABLE OF CONTENTS

	Page
DECLARATION	ii
ABSTRACT	iii
KEY WORDS	iv
ACKNOWLEDGEMENTS	vi
DEDICATION	vii
TABLE OF CONTENTS	viii
LIST OF TABLES	xi
LIST OF FIGURES	xii
LIST OF ACRONYMS	xiii
CHAPTER ONE: INTRODUCTION	
Background to the Study	1
Statement of the Problem	4
Purpose of the Study	6
Objectives of the Study	6
Hypothesis of the Study	7
Significance of the Study	7
Delimitations of the Study	8
Limitations of the Study	8
Organization of the Study	9
CHAPTER TWO: LITERATURE REVIEW	
The Agency Theory	10
Stewardship Theory	14
Market Theory	14

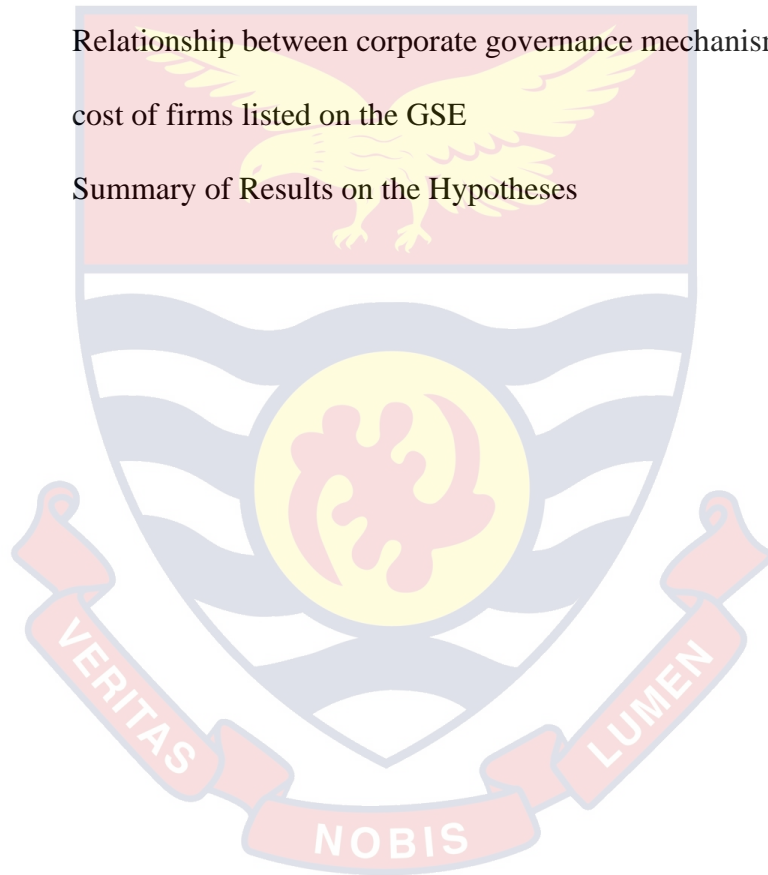
Hypotheses Development	15
Board Size and Agency Costs	15
Board Independence and Agency Cost	16
Ownership concentration and Agency Cost	16
Conceptual Framework	19
Chapter Summary	20
CHAPTER THREE: RESEARCH METHODS	
Introduction	21
Research Paradigm	21
Research Design	22
Research Approach	23
Data screening procedure.	24
Data source	25
Model Specification	25
A Priori Expectations	26
Data Processing Tool and Estimation Strategy	26
Measurement of Variables	27
Chapter Summary	30
CHAPTER FOUR: RESULTS AND DISCUSSIONS	
Introduction	32
Descriptive Statistics	32
Correlation Analysis	34
Regression results on the relationship between Corporate Governance	35
Results of control variables and Agency Cost	40
Diagnostics of the results	41

Chapter Summary	42
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	
Introduction	43
Summary of the Research	43
Summary of Findings	44
Conclusions	45
Recommendations	45
Suggestions for Future Research	46
REFERENCES	47



LIST OF TABLES

Table		Page
1	Summary of measurements and A Priori expected signs of the independent variables	26
2	Variable Source and Description	30
3	Descriptive Statistics of the Regress and the Regressors	33
4	Correlation Analysis	34
5	Relationship between corporate governance mechanisms and Agency cost of firms listed on the GSE	35
6	Summary of Results on the Hypotheses	45



LIST OF FIGURES

Figure		Page
1	Conceptual Framework	20



LIST OF ACRONYMS

AC	Agency Cost
GSE	Ghana Stock Exchange
SEC	Securities and Exchange Commission



KEY WORDS

Agency Cost

Corporate Governance

Listed Firms



CHAPTER ONE

INTRODUCTION

How to reduce agency problems that can arise between shareholders and managers? This is one of the big questions when corporate governance is addressed. Indeed, during the last decades, the issue has attracted the attention of many researchers and regulatory authorities. Its origin dates back to the debate initiated by Berle and Means (1932) that highlighted the problems inherent in the decision-ownership dichotomy. Since then, many researchers have become interested in the study of the agency problem, giving rise to several propositions about the firm's management structure. Indeed, Jensen and Meckling (1976), founder of the agency theory, examined the conflicts of interest that arise between managers and shareholders when ownership and control are separated. To reduce this conflict, corporate governance theory provided answers as to the maximization of firm value and the elimination of any source of organizational inefficiency.

Background to the Study

Corporate governance has become a global phenomenon that continue to attract a lot of interest in business and academia, especially in the light of recent global financial crises, which arose partly as a result of non-optimal corporate governance practices among several organizations across the globe (Agyemang, & Castellini, 2015; Dzigba, 2015; Abor, 2007). The catastrophic losses of financial firms which almost led to a collapse of the financial system followed by the deep global recession emphasizes the importance of corporate governance (Lang & Jagtiani, 2010). Corporate governance is the process and structure used to direct and control the business affairs of the company

towards enhancing business prosperity and corporate accountability with the ultimate objective of realizing long-term shareholder value, whilst taking into account the interests of other stakeholders (Agyemang, Aboagye, & Frimpong, 2014).

It includes the structures, processes, cultures and systems that engender the successful operation of organizations (Buckley & Keasey, 1997). The Cadbury committee (1992) defined corporate governance as “the system by which companies are directed and controlled”. It is about supervising and holding to account those who direct and control management. Corporate governance is about the respective roles of the shareholders as owners and the managers (the directors and other officers). The compliance with corporate governance codes has become the norm for listed firms all over the world (Dzigba, 2015). In most countries, firms do not strictly comply with such codes but it has often been argued that such codes should also apply to these firms.

Many researchers have established a strong link between good corporate governance and sustainable business and economic growth. Claessens (2002) said that better corporate governance frameworks benefit firms through greater access to financing, lower cost of capital, better performance and more favorable treatment of all stakeholders. Corporate governance brings new strategic outlooks through external independent directors; it enhances firms' corporate entrepreneurship and competitiveness (Agyemang & Castellini, 2015; Abor & Adjasi, 2007).

A number of studies has also shown that good corporate governance increases valuations and boosts the bottom line. A key among these studies

include Agyemang and Castellini (2015), Agyemang, Aboagye and Frimpong (2014), Gompers, Ishi and Metrick, (2003) and; Claessens and Fan (2003). For example, a study by Gompers *et al.* showed that companies with strong shareholder rights yielded annual returns that were 8.5 percent greater than those with weak rights. Related to that, it was also observed that the more democratic firms also enjoyed higher valuations, higher profits, higher sales growth, and lower capital expenditures. Again, poorly governed firms are expected to be less profitable, have more bankruptcy risks, lower valuations and pay out less to their shareholders, while well-governed firms are expected to have higher profits, less bankruptcy risks, higher valuations and pay out more cash to their shareholders. Claessens and Fan also argued that better corporate frameworks benefit firms through greater access to financing, lower cost of capital, better performance and more favorable treatment of all stakeholders. The position has been stated that, weak corporate governance does not only lead to poor firm performance and risky financing patterns, but are also conducive to macroeconomic crises like the 1997 East Asia crisis.

Other researchers contend that good corporate governance is important for increasing investor confidence and market liquidity (Donaldson, 2003). Studies by Agyemang and Ansong (2017), Ansong and Agyemang (2016), Agyemang et al (2014) and Abor and Biekpe (2007) have examined how the adoption of corporate governance structures affects investor confidence and market liquidity. Thus, firms particularly listed ones have a crucial role to play in stimulating growth, generating employment and contributing to poverty alleviation, given their economic weight in the country. Agency problems arise when managers or controlling shareholders have the ability to redirect or

consume corporate resources in ways that benefit themselves, but which are not in the best interests of the other owners, including minority owners (Jensen & Meckling, 1976; Shleifer & Vishny, 1997; Holmstrom & Kaplan, 2003; Becht, Bolton & Roell, 2003; Dennis & McConnell, 2003; La Porta, Lopez-de-Silanes & Shleifer, 2008). Firms face two types of agency problems: vertical agency problems that exist between owners and managers (type I agency conflict) (Jensen & Meckling, 1976), and horizontal agency problems that exist between controlling (majority) shareholders and minority shareholders (type II agency conflicts) (Shleifer & Vishny, 1997; Gilson & Gordon, 2003).

Tirole (2006) suggested that two important manifestations of agency problems are 1) inefficient investment choices, which could include the redirection of resources for personal consumption, and, 2) inefficient or insufficient effort being expended by managers. The costs that arise as a result of these inefficiencies are generally referred to as agency costs (Jensen & Meckling, 1976). The magnitude of any agency costs should therefore, depend on corporate governance structures. It is contended that poor governance structures could lead to high agency cost (Jensen & Meckling, 1976), which could eventually affect firm performance adversely. Thus, it is primarily important to examine how corporate governance structures help mitigate the agency cost.

Statement of the Problem

In Ghana, corporate governance is now gaining roots in response to initiatives by some stakeholders such as the Ghana Institute of Directors (IoD-Ghana), in collaboration with the Commonwealth Association of Corporate

Governance, to address corporate governance in Ghana. Again, there have also been other initiatives designed to address corporate governance issues in the country. For instance, a study, conducted and launched by IoD-Ghana in 2001, pointed out that there is an increasing acceptance of good corporate governance practices by businesses in the country.

Notwithstanding the above developments, it must be indicated that more formal corporate governance structures and institutions are relatively not widespread though a number of laws provide for governance structures for companies in Ghana. These laws include:

- _ The Companies Act 1963 (Act 179), which provides for governance of all companies incorporated in Ghana;
- _ The Securities Industry Law, 1993 (PNDCL 333) as amended by the Securities Industry (Amendment) Act 2000, (Act 590), which provides among other things for governance of all stock exchanges, investment advisors, securities dealers, and collective investment schemes licensed by the Securities & Exchange Commission (SEC).

In the Companies Act, there is a deliberate attempt to streamline corporate practices in the country. For instance, the Act stipulates a minimum of two directors for a company with no ceiling on the maximum number, whilst the Ghana Stock Exchange (GSE) Listing Regulations are silent on-board size (Agyemang & Ansong, 2017). With regards to board composition, there is no requirement under the companies act for the appointment of independent directors neither is there a provision for the balance of executive and non-executive directors. However, there is allowance for the interests of different stakeholders to be represented on a board. This is however a

requirement under the Securities and Exchange Commission's Act of Best Practices on Corporate Governance (SEC Act) for the GSE (Gilson & Gordon, 2003).

Developing countries such as Ghana are now increasingly embracing the concept of good corporate governance, knowing it leads to sustainable growth (Agyemang, & Castellini, 2015; Agyemang, Aboagye, & Frimpong, 2014; Agyemang, Aboagye, Antwi, & Frimpong, 2014; Kyereboah-Coleman & Biekpe, 2008). For instance, in Ghana, a study by Mensah, Aboagye, Addo and Buatsi (2003) on corporate governance and corruption revealed that poor corporate governance practices result in corrupt practices and dealings. Similarly, Kyereboah-Coleman and Nicholas Biekpe (2008) though showed a relatively inconclusive result on these performance measures but recommended that, firms in Ghana must be encouraged to maintain smaller board sizes and adopt the two-tier board structure for effective performance. A most recent study on corporate governance in Ghana is the one by Dzigba (2015) which analyzed corporate governance practice among small and medium scale enterprises (SMEs) in Ghana, with a focus on how corporate governance structures affect access to credit by SMEs.

However, a review of these extent literature on corporate governance-firm highlights two issues. Firstly, the fact that corporate governance can greatly assist the firms by infusing better management practices and offering greater opportunities for growth and minimizing agency cost. Secondly, most of these empirical studies in this area focused either on the impact of corporate governance on SMEs' performance (Abor, 2007; Dzigba, 2015), corruption (Mensah, Aboagye, Addo & Buatsi, 2003), or the influence of ownership

structure on firm value (Claessens, 2002; Dzigba, 2015) with no focus on corporate governance and agency cost. The issue of agency cost has become increasing blatant corollary to the several scandals in the Ghanaian banking sector, which mostly occurred as a result of separation of ownership from management. It is against this backdrop that this study sought to examine the effect of corporate governance on agency cost of listed companies on the Ghana Stock Exchange Market.

Purpose of the Study

The purpose of this study is to examine the effect of corporate governance structures on agency cost of listed Companies on Ghana Stock Exchange.

Research Objectives

Specifically, the study sought to achieve the following objectives:

1. To ascertain the effect of board size on listed firms' agency cost
2. To determine the effect of the presence of non-executive directors on listed firms' agency cost.
3. To establish the relationship between ownership concentration and listed firms' agency cost

Research Hypothesis

1. H₁: there is a significant negative relationship between board size and the level of agency cost
2. H₂: there is a significant negative relationship between non-executive directors and agency cost
3. H₃: there is a significant negative relationship between ownership

concentration and agency cost

Significance of the Study

The findings of this study would contribute to improving understanding about corporate governance practices in the Ghana Stock Exchange Market and most importantly in ways the listed companies can implement good corporate governance that aligns with their performance and minimize agency cost. Many companies in Ghana will find the study very valuable to their operations and more so a benchmark to decisions to improve on corporate governance in the GSE.

The policy makers in the financial sector may also find this study useful as a basis of formulating policies, which can be effectively implemented for better and easier regulation of the sector. The government may also use the study to come up with policies and ways of promoting corporate governance in GSE market.

The empirical results would also provide general indicators of corporate governance usefulness for both regulators and business people in making policies and decisions as well as in rewarding or punishing the companies or institutions that have great or little intention to improve their corporate governance aligning with managers-owners risk-taking behavior and firm performance. Other researchers and academic community will use this study as a basis for further studies on corporate governance in Ghanaian companies.

Delimitations of the Study

Although there were numerous themes that could have been studied in relation to the performance of listed companies, the study focused on corporate governance. The choice of corporate governance was motivated by the lack of adequate research carried out within the listed companies in Ghana. The study was also concentrated on selected listed firms on Ghana Stock Exchange. The study focused on board size, board composition and ownership concentration of firms. The firm's agency cost is measured by the efficiency of asset utilization using the asset turnover ratio defined as the ratio of sales to assets ("AT"), which reflects how management uses the assets under control for revenue generation (Ang, Cole & Lin 2000; Singh & Davidson III 2003). The study also measures production cost efficiency using operating expenses divided by sales.

Limitations of the Study

Research limitations are those phenomena and parameters that take place in a study which the researcher has no control over. They restrict the scope to which a study can go and occasionally influences the outcomes and conclusions that could be arrived at or drawn. An important limitation with a survey study is that it frequently pushes participants and respondents into peculiar response cohorts thus placing a restriction on the variety of responses contrasting an interview where participants or respondents can pose elaborating and clarifying questions. Additionally, there were inadequate current materials for the researcher to scientifically examine and explore the research problem of investigating the effects of corporate governance on the performance of companies on GES. Another challenge during the data

collection process was the difficulty in reaching all the respondents which dragged the data collection schedule.

Organization of the Study

The study consists of five main Chapters. Chapter one contains the introduction of the study which encompassed the background to the study, the statement of the problem, objectives of the study and research questions. The other main headings of the chapter are the significance of the study, the delimitation and limitation of the study and the organization of the study. The literature review is contained in chapter two thus the theoretical and empirical reviews. Books, journals, articles, published and unpublished research works relating to the study was reviewed. The methodology of the study is the central focus of chapter three. It describes the research design, population, sample and sampling procedures of the study. Also contained in this chapter are the sources of data, research data collection instrument and procedure and methods of data analysis. The analysis of data, presentation of results and discussion of the findings are captured in chapter four. Last but not least the summary of findings, conclusions and recommendations are contained in chapter five.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter contains definitions of corporate governance from diverse perspectives. A historical overview of the concept has also been presented in this section. A theoretical background upon which the study is based is also presented. A thorough theoretical and empirical review of literature from various researchers are also presented in the chapter to serve as a guide to the study.

Theoretical Review

Three theories were used to underpin this study- the agency theory by Meckling and Jensen (1976) and stewardship and market theory by Akintoye (2010).

The Agency Theory

The agency theory of corporate governance sees shareholders as the principals and management as their agents. Agents will, however, act with rational self-interest as employee directors of a company, they will tend to maximize their monetary compensation, job stability and other perks, and do no more than seek to appease shareholders (Meckling & Jensen, 1976). They cannot be expected to act in the interests of the shareholders. They need to be monitored and controlled to ensure that the principals' best interests are served. Basically, there are two sides of the agency cost: the vertical and horizontal agency cost. This theory is the basis for most of today's corporate governance activity. In the subsequent sections, the study explores the two

views of agency cost and its applications ((Meckling & Jensen, 1976).

Application of the Agency Cost

A. Vertical Agency Costs

The simplest ownership structure is one in which a single individual owns and manages the firm. Such firms represent the zero-agency-cost base case with perfect alignment in the interests of the owner and the manager. Jensen and Meckling (1976) argue that when an owner-manager reduces her equity stake below 100%, incentives increase for the manager to consume or waste corporate resources for personal benefit because she gets the benefit without bearing the corresponding cost of such excesses. Thus, agency costs should vary inversely with the manager's fractional ownership of the firm; and be highest among firms that are managed by managers without any ownership stake.

If the owner hires an outsider as the manager, agency costs arguably arise in the form of lost revenues or reduced profits resulting from misalignment of interests and imperfect monitoring problems (Jensen & Meckling, 1976). When a sole owner bears 100 percent of any agency costs, she also receives 100 percent of the resulting benefits from monitoring and disciplining managers through the right to hire or fire managers. As we move from a single owner setting to structures where firms are owned by multiple shareholders (and the manager holds little or no equity ownership), we should expect the magnitude of vertical agency costs to increase (Jensen & Meckling, 1976). This is because, as the number of shareholders increases, the incentive for any shareholder to incur all of the cost of monitoring the managers decreases, because the monitoring benefits accruing to a shareholder are

limited by the shareholder's proportional ownership stake, which is less than 100%.

Agency costs are therefore predicted to be higher for firms with multiple owners relative to firms with a single owner. Furthermore, the presence of a shareholder or shareholders with disproportionately higher stakes may provide the particular shareholder(s) with a substantially greater incentive to monitor managers and ensure that agency costs are kept low: hence, vertical agency costs may be lower with more concentrated ownership, and predicted to increase as the proportion of the shareholding of the shareholder(s) managing the firm decreases because the relative cost of wasted resources borne by managing shareholders decreases (Shleifer & Vishny, 1988; Franks, Mayer & Renneboog, 2001; Bennedson & Wolfenzon, 2000). Similarly, agency costs are predicted to be arguably higher for firms with relatively more complex ownership structures (e.g., involving part-ownership by holding companies and other entities) relative to firms with a simple ownership structure. This study empirically tests each of these predictions.

B. Horizontal Agency Costs

A fundamental feature of a private-firm ownership structure is that shareholders are relatively few in number, are reasonably knowledgeable about firm operations, and are often involved in the management of the firm. In particular, when a controlling shareholder is present, that person generally takes an active interest in running the company by choosing the management team and directly holding an executive position. While concentrated ownership helps mitigate the vertical agency problem, it is also possible that a controlling shareholder will extract private benefits of control by forcing

decisions which expropriate minority shareholder wealth (Grossman & Hart, 1980; Dyck & Zingales, 2004; Gilson & Gordon, 2003). These result in horizontal agency costs.

Pagano and Roell (1998) suggested that by monitoring the controlling shareholder other large shareholders play an important role in reducing horizontal agency costs. Gomes and Novaes (2005) speculated that the presence of a large number of block holders improves firm governance in closed corporations because disagreement among shareholders prevents them from expropriating minority shareholders. In a model developed by Bennedsen and Wolfenzon (2000) no individual shareholder has sufficient votes to control the firm, and consequently must form a coalition of shareholders to achieve control. Coalition formation minimizes the chance of expropriation since no individual shareholder is able to take any actions without the consent of the other coalition members.

A result is that fewer choices expropriating minority shareholders are implemented and firm performance is better relative to the single controlling shareholder case. The main shareholder surrenders some control to minority shareholders in order to improve overall firm performance. The prediction is that shared control of firms helps decrease the magnitude of horizontal agency costs (Faccio, Lang & Young, 2001; Lehmann & Weigand, 2000; Maury & Pajuste, 2005; Gutierrez & Tribo, 2008; Berkman, Cole & Fu, 2010). The study empirically tests this prediction. Pagano and Roell (1998) specified conditions under which multiple large shareholders will cross monitor each other, reducing expropriation and improving firm performance.

In their model, expropriation of minority shareholders by a controlling

shareholder is likely to be less severe when the ownership stake of non-controlling shareholders is more concentrated. The intuition behind the conclusion is that large non-controlling shareholders are more effective in monitoring the controlling shareholder. In a related analysis, Bloch and Hege (2001) conclude that minority expropriation will be lower in firms where control is more contestable, that is in firms where the difference in the stakes of the controlling shareholders and that of minority shareholders is smaller. An empirical implication of these theories is that the magnitude of horizontal agency costs decreases as contestability increases (Faccio, Lang & Young, 2001; Lehmann & Weigand, 2000; Maury & Pajuste, 2005; Gutierrez & Tribo, 2008; Berkman, Cole & Fu, 2010).

Stewardship Theory

The stewardship theory of corporate governance holds that, because people can be trusted to act in the public good in general and in the interests of their shareholders in particular, it makes sense to create management and authority structures that, because they provide unified command and facilitate autonomous decision making, enable companies to act (and react) quickly and decisively to market opportunities (Davis, Schoorman & Donaldson, 1997). In the context of the current study, this approach leads, for instance, to the combination of the roles of chair and CEO, and for audit committees to be either non-existent or lightweight. Resistance to the modern corporate governance movement to a day tends to be based on this theory (Eddleston & Kellermanns, 2007).

Market Theory

The market theory of corporate governance holds that it does not really matter whether managers see themselves as steward or agents, because shareholders will simply sell in the market the stocks and shares of those companies whose directors are not generating adequate returns for their investment (Dickens & Lang, 1984). To the extent that this theory was genuinely held, it was fatally undermined by the corporate scandals at the turn of the century: shareholders in Enron (including many of its employees) were unable to sell their shares (many of which were held in pension plans) once it became clear that the company's governance was wholly inadequate (Fine, 2002).

Empirical Review

Board Size and Agency Costs

Board size plays an essential role in every organization. The board of directors helps in disciplining and controlling the activities of the CEO and the management. It also creates linkage between the external parties and the firm, gain access to resources in terms of materials, human power, and networking and so on (Essa, Kabir & Nguyen, 2016). A larger board comprises a wide range of expertise who contribute to make better decisions for a firm as the CEO cannot dominate a bigger board. The collective strength of its members is higher and can resist the irrational decisions of a CEO (Pfeffer, 1972; Zahra & Pearce, 1989). This however, results in agency cost amongst the members.

On the other hand, small boards are more efficient in decision-making because there is less agency cost among the board members (Yermack, 1996).

Kamyabi, Majbouri and Ashae (2014) in a study on the impact of corporate governance and ownership structure on agency cost in listed companies of Tehran stock exchange revealed that there is a negative and significant relationship between agency cost and board size. Gill, et al. (2012) in their study of public listed companies in Malaysia found that larger board size has a significant effect as a device in mitigating agency cost and has a positive impact on the investment decisions of the firm. Singh and Davidson (2003) also affirmed the claim. However, Hastori, Siregar, Sembel, and Maulana (2015) argued that a larger board reduces the level of agency cost and their presence effectively reduced agency cost incurred in agro-industrial firms in Indonesia. Based on the ongoing discussions, it is hypothesized that:

H_1 : There is a significant negative relationship between board size and the level of agency cost

Board Independence and Agency Cost

Board of directors are considered essential in any organization because of the role they play in monitoring management and is perceived as to also play an important role in limiting or controlling agency problem (Fama & Jensen, 1983; Jensen, 1993). The effectiveness of a board as a corporate governance mechanism depends on its size and composition. Large boards are usually more powerful than small boards and, hence, considered necessary for organizational effectiveness (Gul, Sajid, Razzaq, & Afzal, 2012).

Henry (2004) concluded that agency costs is lower in boards that have a larger number of independent directors than a small board. On the contrary however, McKnight and Weir (2009) argued that board independence have had little or no effect on agency costs in the UK. While Hermalin and

Weisbach (1991); and Agrawal and Knoeber (1996) suggested that board independence mitigates agency costs. Based on the ongoing discussions, it is hypothesized that:

H_2 : There is a significant negative relationship between independence and the level of agency cost.

Ownership Concentration and Agency Cost

Shareholders have the capacity to actively monitor the managers. However, they are limited to their individual stake in the company (Grossman & Hart, 1988), shareholders with low proportion of ownership has little or no incentives to exert monitoring function. However, shareholders with higher amounts of ownership have a stronger incentive to monitor and protect their investment (Shleifer & Vishny, 1997; Friend & Lang, 1988). Large shareholders may also prevent the possibility of a takeover bid, make managers to feel safer about their positions, hence corporate governance may help in the reduction of agency problems associated with managers (Shleifer & Vishny, 1986).

Florackis (2008) in a study of UK companies concluded stating that ownership concentration is also positively related to asset turnover and that ownership concentration seem to play an important role in mitigating agency costs in the UK. However, the existence of concentrated holdings may decrease diversification, market liquidation and stock's ability to grow and, therefore, may increase the incentives of large shareholders to expropriate firm's resources (Beiner, Drobetz, Schmid, & Zimmermann, 2006). Hinele and Iyiegbuniwe (2018) investigated the role of ownership structure and corporate governance in mitigating agency cost in manufacturing firms listed

on the Nigerian Stock Exchange during the period 2007 to 2017. Using a proxy agency cost index to measure agency cost and employing a multivariate fixed effect regression, results showed that higher managerial ownership, operating expense and free cash flow had significant influence on agency cost.

Osman (2014) examined the relationship of agency costs with corporate performance. Five variables of agency costs proxies were analysed: Debt Ratio, Firm's size, Growth, Expense and Efficiency. While the corporate performance was measured by Return on Assets (ROA) and Return on Equity (ROE). Results showed that only Firm Size, Expense and Efficiency Ratio has the relationship with agency cost. Debt ratio and growth variables was not significant with Corporate Performance but significant with agency cost. Gogineni, Linn & Yadav (2013) examined Ownership Structure, Management Control and Agency Costs. Using a sample of more than 250,000 public and private firms, the authors documented that agency costs increase as firms move from a single owner/single manager ownership structure to more complicated ownership structures. They further observed that within each ownership structure, agency costs are significantly higher when firms are not managed by owners. Their study showed that agency costs are lower in firms with shared control of ownership and that horizontal agency costs are lower in firms where control is contestable.

Chen (2010) in his study employed both qualitative and quantitative analyses on a sample of 6344 Chinese listed companies during 2000-2005 and also used econometric models to examine the role of various governance mechanisms in alleviating agency costs. He found that state ownership does not have constant detrimental impact on firm performance or directly

contribute to agency costs. Legal person ownership is found to be most effective in reducing agency costs but has similar impact as state ownership for performance. Based on the ongoing discussions, it was hypothesized that:

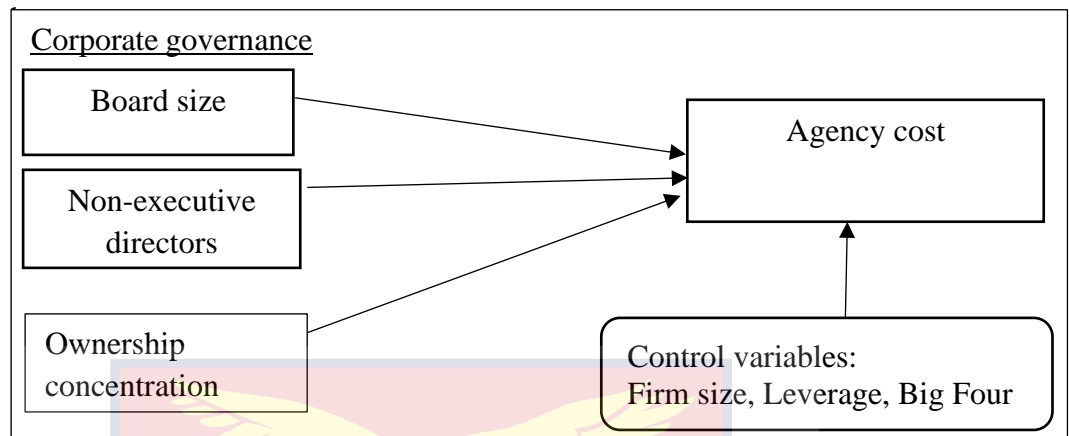
H_3 : There is a significant negative relationship between ownership concentration and the level of agency cost.

Conceptual Framework

Based on the overall purpose of the study, given cognizance to the specific research objectives, hypotheses, theoretical postulations, and empirical relationships established empirically, this Conceptual Framework (Figure 1) is proposed delineating the nature of interrelationship among the constructs of the study from statistically analytic perspective. First of all, it must be recognized that the study treats corporate governance as the main independent variable and this had three major sub-indicators including board size, non-executive directors and ownership concentration.

It is believed that favourable variance in these variables will induce favourable variance in agency cost, which is the main dependent variable, whose behaviour is determined by changes in the independent variables. This, there exist some form of association between corporate governance as measures the sub-indicators and agency cost among listed firms in Ghana. The study proposes that although changes in corporate governance may induce changes in agency cost, this effect can however be influenced by other intervening factors that may end-up affecting the actual relationship between corporate governance and agency cost, hence the need for these factors to be statistically controlled for in the analytical framework of the study. The control factors are firm size, firm age and firm assets.

Conceptual Framework for Board Composition and Firm's Agency Cost



Source: Author's Construct

Figure 1: Conceptual Framework

Chapter Summary

The literature review provided an overview of governance regulatory framework in Ghana, theories employed in the study, and empirical evidence on the relationship between corporate governance and agency cost. The empirical review showed that findings on the relationship between corporate governance and agency cost vary significantly according to the context of the study. However, in general, the literature points to a negative relationship between corporate governance and agency cost, signifying that corporate governance could reduce the extent of agency cost faced by firms.

CHAPTER THREE

RESEARCH METHODS

Introduction

The various processes and procedures through which the investigator or researcher executed the work of explaining and describing phenomena are contained in this section of the study. Thus, the chapter entailed the different approaches and methods employed to gather data with the intention of making and arriving at prudent business decisions. To realize this, the researcher explained precisely how the study was going to be executed. It comprised of the research design, population, sample and sampling procedure and data collection and analysis processes. Thus, at large, the methodology provided the work plan of the study being executed.

Research Paradigm

The study shall follow the Positivists paradigm. The positivist use validity, reliability, objectivity, precision and generalizability to judge the rigor of quantitative studies as they intended to describe, predict and verify empirical relationships in relatively controlled settings (Johnson & Onwuegbuzie, 2004). Positivism allows the researcher to study social processes in an objective manner by quantifying the social phenomenon as well as explain relationships between variables (Patton, 1975). Furthermore, positivist philosophy is suitable for the development of mathematical models to investigate the relationship between quantitative measurements. The positivism was adopted for this study because issues of corporate governance and agency cost were quantified. Further relationships between them were explained (Edosdi, 2008).

Research Design

A research design is the ‘procedures for collecting, analysing, interpreting and reporting data in research studies’ (Ivankova, Creswell & Plano Clark, 2007). It is the overall plan for connecting the conceptual research problems with the pertinent (and achievable) empirical research. In other words, the research design sets the procedure on the required data, the methods to be applied to collect and analyse this data, and how all of this is going to answer the research question. As explained by Robson (2002), there are three possible forms of research design: exploratory, descriptive and explanatory.

Explanatory study sets out to explain and account for the descriptive information. So, while descriptive studies may ask ‘what’ kinds of questions, explanatory studies seek to ask ‘why’ and ‘how’ questions (Grey, 2014). It builds on exploratory and descriptive research and goes on to identify actual reasons a phenomenon occurs. Explanatory research looks for causes and reasons and provides evidence to support or refute an explanation or prediction. It is conducted to discover and report some relationships among different aspects of the phenomenon under study.

As defined in previous section, the main objective of the study is to explore the relationship between corporate governance and agency cost. To achieve this, it draws statistical, quantitative results and further seeks to provide justifications on the established relationship with quantitative study. Therefore, the pertinent research design obviously is explanatory type that responds to both the how and why aspect of the fundamental research

question. Thus, the choice of research design depends on the objectives of the research in order to be able to answer the research questions in research problem (Crotty, 1998). The research problem is an issue or concern that needs to be addressed. In such regard, this study aims to test the pertinent theories related corporate governance though establishing a causal link between measures of corporate governance and agency cost. Moreover, the assessment extends to incorporate the effect of identified control variables on performance measure. Therefore, explanatory study appears the best option in search for such kind of casual research among others (Saunders, Lewis & Thornhill, 2003). The emphasis of this research design is on studying a situation or a problem in order to explain the relationship between variables or to test whether one event causes another (Creswell, 2003). Therefore, the researcher argues that explanatory design is the proper research design to address the central and subsidiary questions of the study.

Research Approach

The research approach employed was a quantitative approach. Leedy and Ormond (2005) noted that this research approach involved obtaining information about one or more cohorts of people possibly concerning their distinctiveness, attitudes, views or prior experiences by posing questions and tabulating their answers.

The quantitative approach is used to answer questions in relation to associations among measured variables with the rationale to explain, predict and control phenomenon (Saunders, Cooke, McColl, Shine & Peacock, 2010). This technique has the benefit of formulating the problem of the research in very precise terms, eliminating or minimizing subjectivity of judgment and

following steadily the original set of research goals, arriving at more objective conclusions (Saunders & Townsend, 2016). Thus, the study adopted the quantitative approach to measure the variable quantitatively and examine relationships among them.

Data Screening Procedure.

The population of the study is all firms in Ghana. The accessible population all listed companies on the GSE. Currently there are forty-one (41) companies listed on the GSE. Firms listed on the GSE are made up predominantly of manufacturing and financial. The GSE was chosen because of its potency with contribution to Ghana's economy. The study used 23 non-financial firms out of 41 firms listed on the GSE. The study excludes all financial firms from the sample since the accounting standards for income and profit for these firms are significantly different from other industries.

Data Source

In conducting this research, secondary sources of data were used as the main means of eliciting the required information needed for this research. The secondary data was obtained from the corporate annual reports and websites of the selected listed companies for 2018. In line with related prior studies on corporate governance practices (Freedman & Jaggi, 1988; Guthrie & Parker, 1989; Gray, Kouhy & Lavers, 1995; Neu, Warsame & Pedwell, 1998); this research limited its analysis to the use of firm's annual reports and corporate websites for the following reasons. Firstly, information from companies' corporate websites and annual reports are the main corporate documents sources that represents a company and are widely used as the main

communication medium for conveying corporate activities to stakeholders. Secondly, the fact that most other prior studies used corporate websites and annual reports provides a greater potential for comparability of results.

Hughes, Anderson and Golden (2001) also cited the frequent use of annual reports and corporate websites in corporate governance studies. They argued that it is due to their wide availability; and the perception that this is the medium most often used by corporations to communicate in a systematic manner with shareholders. Also, the choice of corporate annual reports and firm's websites as a principle focus arises due to the fact that these sources are widely viewed as a major official and legal data source for companies (Gray, 1995). Furthermore, they constitute to a great extent the only source of corporate disclosure that is provided on a regular basis and it constitutes an important source of information to individual shareholders, institutional investors as well as brokers (Hines, 1982). Moreover, in developing economies, corporate websites and annual reports are the most accessible and mandatory source of information on a firm's general performance.

Model Specification

Model 1 is the baseline model for the study. It is specified as follows:

$$AC_{it} = \sigma + \beta C.GOV_{it} + \gamma Z_{it} + e$$

Where:

- AC represents the Agency cost measured by asset utilisation ratio and the expenses to sales ratio of firm i at time t
- C.GOV represents the corporate governance variables, i.e, board size, board independence and ownership concentration of firm i, at time t

- Z denotes a vector of the control variables, i.e, firm size, leverage and Big four auditing firms.
- e represents the error term.

A Priori Expectations

Table 1 depicts the expected signs of the independent variables based on theoretical and empirical literature discussed in chapter 2.

Table 1: Summary of Measurements and A Priori Expected Signs of the Independent Variables

Variables	Expected signs
Board Size	-
Non – Executive Directors	-
Owner Concentration	-

Source: Field Data (2019)

Data Processing Tool and Estimation Strategy

The study employed panel design because the data structure contained both time series (years) and cross-sectional dimensions (the firms). The data was processed by Stata version 13.0 and the study employed the random effect estimator based on the results from the Hausman tests. The choice of either fixed effects or random effects depended on the results from the Hausman test. Wooldridge (2010) explained the basic structure of fixed effect approach to panel data analysis. The fixed effect estimator uses time- demeaning approach to eliminate the unobserved firm specific effects, which may be correlated with the independent variables. Thus, once the unobserved effects are eliminated, all endogeneity issues or measurement errors in the panel structure

will be removed (Verbeek, 2008). This means that fixed effect estimators require a formal test of serial correlation to verify the efficiency of the estimations.

However, in practice, most researchers estimate both fixed and random effect models and choose between them based on the Hausman test. The null hypothesis of the Hausman test is that the unobserved term is uncorrelated with the independent variables. Thus, the null hypothesis is rejected, the fixed effect estimates are more efficient and the vice versa means that the random effect estimates are more efficient.

Measurement of Variables

Agency Cost

In this study, two main proxies are employed for agency cost, that is, asset utilization ratio and the expenses ratio. The asset utilization ratio is calculated as sales or revenue divided by the total assets. It measures the revenue each cedi of asset is able to generate. This therefore depicts that the higher the ratio, the effectively the management of the company uses or organizes its assets. Thus, company who experiences low asset utilization ratio indicates high agency costs meaning an inverse relationship to each other (Ibrahim & Samad, 2011). This proxy has been employed in studies such as Ibrahim and Samad; Florackis and Ozkan (2004); and Singh and Davidson III (2003). The second proxy for agency cost, which is expense ratio, is calculated as operating expense divided by annual sales. Since the compensation and benefits of senior management as well as other employees is embedded in expenses, higher expense to sales ratio could imply that management are paying themselves huge salaries and also probably spending company funds

on the luxury automobiles or company furniture, and also other direct agency costs. This proxy has been used in previously literature such as Ang and Ding (2005) and Ibrahim and Samad (2011).

Board Size

Board size simply measures the number of board members in the firm and this study employed the square of the number of board members as a measure for board size. It is good to note that the measure for board size is the square of board size and this has important implications for the results (De Andres & Vallelado, 2008). First, it means that the coefficient of the board size is inverted U-shaped and thus escalating levels of board size could rather increase agency cost (Wang, Chen, Fang & Tian, 2018).

Board Independence

Independent board members are board of directors who have no material interests in a company. Mostly, these board members are expected not to be influenced by interests in the company and are required to govern the company in an honest and objective manner because they are not employees of the business. The study adopted the measurement by Hutchinson, Percy and Erkurtoglu (2008) as well as Klein (2002) to measure board independence as the number of non-executive directors divided by the total number of board members.

Ownership Concentration

Finally, in line with the measurement of, Parrino, Sias and Starks (2003), Bhojraj and Sengupta, (2003), as well as Roberts and Yuan (2010),

ownership concentration was measured by calculating the percentage claims of major investors. The annual reports of the listed companies provide a list of majority shareholders.

Control Variables

Firm Size, the Big Four, and Leverage

Consistent with Kukah, Amidu and Abor (2016), firm size was measured by the logarithm of total assets. The study expected a negative relationship between firm size and agency cost as recorded by Barton and Simko (2002). The Big four was measured by a dummy, where 0 means that the firm is not audited by any of the Big Four and 1 means that represents the firm is audited by the big four. It was also expected that a firm that is audited by any of the big four auditing firms will have lower agency cost. Another variable controlled for in the study was leverage. This was measured by long term debt divided by total assets of firm. It was expected to have a positive relationship with opportunistic behavior of management (Zangers- Mamedova, 2009) and thus will reduce the extent of agency cost. Table 2 below shows a summary of the variables' measurements, and their sources.

Table 2: Variable Source and Description

Variable	Measurement	Source
Agency Cost	<ul style="list-style-type: none"> ● Efficacy of asset utilization (asset utilization ratio) ● Cost efficiency (expense ratio) 	Annual Report of listed companies, 2013-2017
Board Size	Number of board members squared	Annual Report of listed companies, 2013-2017

Non-executive directors	Proportion of Non-executive directors out of total board size	Annual Report of listed companies, 2013-2017
Ownership concentration	Percentage claims of major investors.	Annual Report of listed companies, 2013-2017
Firm size	Logarithm of total assets	Annual Report of listed companies, 2013-2017
Leverage	Long term debt divided by total assets of firm	Annual Report of listed companies, 2013-2017
Big four	Dummy variable, where 0 means that the firm is not audited by any of the Big Four and 1 means that represents the firm is audited by the big four.	Annual Report of listed companies, 2013-2017

Source: Field Data (2019)

Chapter Summary

This chapter presented the research methods employed in conducting the study. The study is based on the positivism research philosophy and the quantitative research approach. The study also employed explanatory research design as it seeks to explain the relationships between corporate governance mechanisms and agency cost of listed firms in Ghana. The study sought to establish a relationship between corporate governance and agency cost. The study mainly employed fixed effect and random effect based on the Hausman test.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents and discusses the results obtained from the empirical analysis. Descriptive statistics on all variables employed in the study are also presented to give an idea of the state of Agency cost and corporate governance, of firms listed on the Ghana Stock Exchange. Next, the study presents a correlation matrix to reveal the extent to which the variables employed in this study are related and also to help avoid issues of multicollinearity in the empirical specification, is also presented in the chapter. Subsequently, the chapter presents formal discussions on the various models estimated in the study.

Descriptive Statistics

The study excludes all financial firms from the sample since the accounting standards for income and profit for these firms are significantly different from other industries (Kukah, Amidu & Abor, 2016; Kukah Campbell & Keys, 2002; Lemmon & Lins, 2001). The descriptive statistics presented in this section is the mean, which is the measure of average, the standard deviation which is the measure of degree of variability, the minimum and the maximum values for each variable, as well as the number of observations.

Table 3 : Descriptive Statistics of the Regress and the Regressors
Descriptive Statistics

Variable	Mean	Std.Dev.	Min	Max
AUR	0.703	0.479	0.446	0.895
ESR	0.317	0.059	0.232	0.464
BSS	64.609	36.314	9	144
BIND	0.711	0.243	0	1
OWNC	0.6593	0.027	0.443	0.785
Firmsize	18.074	3.01	11.429	24.906
BIG 4	0.652	0.479	0	1
LEV	0.936	4.022	0.001	31.212

Source: Field Data (2019)

AUR represents the Asset Utilization Ratio, ESR represents the expenses to sales ratio, BSS represents Board Size Square, BIND represents Board Independence, OWNC represents Ownership Concentration, Firm size represents Firm size, BIG4 represents the Big 4 Audit Companies, Lev represents Firm leverage.

From the Table 3, the asset utilization variable, which is an inverse measure of agency cost, had an average of 0.703 within the limits of 0.446 and 0.895. This shows that overall, the sampled listed are doing well in keeping agency cost low in terms of asset utilization ratio. On the other hand, the sampled listed companies recorded an average expense to sales ratio of 0.317 with the limits 0.232 and 0.464 according to Table 3. Following the fact that the expense to sales ratio is a direct measure of agency cost, the mean of 0.317 also confirms that the sampled listed are doing well in keeping agency cost low.

As identified by extant literature, corporate governance could reduce the level of agency cost of a firm. Thus, to enable an in-depth understanding of the state of corporate governance indicators in the sampled listed companies, the study also presented the descriptive statistics of each of the four corporate governance mechanisms. Board size and board independence had averages of 36.314 within the limits 9 and 44 as well as 0.711 according to Table 3 within

the limits 0 and 1 respectively. Also, ownership concentration averaged 65.93%.

As control variable, Table 3 indicated firm size variable recorded an average of 18.047 with some firms having a size as small as 11.429 and as large as 24.906. The average leverage ratio of the sampled listed firms was 0.936, with the limits 0.001 and 31.212. In addition, from the descriptive statistics, over the period, 64.609% of the firm-year observations had their financial statements being audited by one of the big four audit firms while the remaining 35% have their financial statements audited by firms other than the big four.

Correlation Analysis

Table 4: Correlation Analysis

	AUR	ESR	BSS	BIND	OWNC	FIRMSIZE	BIG4	LEV
AUR	1.0000	0.8738	0.8044	0.8414	0.7682	0.8313	0.8601	0.7810
ESR		1.0000	-	-	-	-0.7887	-	-
BSS			1.0000	0.6508	0.6074	0.3523	0.4952	0.5850
BIND				1.0000	0.6538	0.5585	0.5262	0.5600
OWNC					1.0000	0.3269	0.4238	0.5103
FIRMSIZE						1.0000	0.4728	0.5899
BIG4							1.0000	0.4316
LEV								1.0000

Source: Field Data (2019)

AUR represents the Asset Utilization Ratio, ESR represents the expenses to sales ratio, BSS represents Board Size Square, BIND represents Board Independence, OWNC represents Ownership Concentration, Firm size represents Firm size, BIG4 represents the Big 4 Audit Companies, Lev represents Firm leverage.

Table 4 presents the pairwise correlation matrix for the all the variables employed in the empirical analysis. It could be observed that, predictable the independent variables depict a high pairwise correlation with the dependent variables and this shows they could possibly influence the dependent

variables. Again, a close examination of the correlation matrix reveals that there are no issues of multicollinearity in the empirical specification because the independent variables do not exhibit correlation coefficients more than 0.80 among themselves (Kennedy, 2003).

Regression results on the relationship between Corporate Governance Mechanisms and Agency Cost.

This subsection present and discusses the empirical results on the objectives of the study. The results of the regressions that estimate individual effects of Corporate governance mechanisms on agency cost of sampled listed firms. The results are presented in Table 5:

Table 5: Relationship between Corporate Governance Mechanisms and Agency Cost of Firms Listed on the GSE

	Dependent Variable: Asset Utilization Ratio			Dependent Variable: Expenses to sales ratio		
	Mode 1a	Model 1b	Model 1c	Model 2a	Model 2b	Model 2c
BSS	12.16*** (2.332)			-11.87*** (3.528)		
BIND		17.24** (8.203)			-38.0** (12.91)	
OWNC			51.60*** (11.63)			-16.82** (6.16)
FIRMSIZE	-19.97** (5.152)	9.297* (5.062)	- 90.8** (46.33)	29.72 (16.06)	53.07** (19.12)	3.571** (1.211)
BIG4	13.684** (6.04)	14.5** (7.07)	17.21** (8.03)	-11.423** (5.56)	-46.13*** (11.44)	35.68.1*** (11.367)
LEV	2.089*** (0.306)	7.08** (3.306)	8.08** (4.001)	12.998** (6.246)	11.728** (5.065)	9.379** (4.236)
_cons	12.13** (6.04)	7.071* (3.986)	27.509* (13.003)	70.7 (39.3)	13.5621** (4.766)	70.176** (26.732)
<i>N</i>	79	89	87	86	89	83
<i>R Square</i>	0.7762	0.7064	0.7079	0.6990	0.6991	0.7112
<i>Wald Chi²</i>	33.65	44.65	67.48	62.13	49.48	59.48
<i>P>Chi²</i>	0.000	0.000	0.000	0.001	0.000	0.000

Standard errors in parentheses
 * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$
 Source: Field Data (2019)

AUR represents the Asset Utilization Ratio, ESR represents the expenses to sales ratio, BSS represents Board Size Square, BIND represents Board Independence, OWNC represents Ownership Concentration, Firmsize represents Firm size, BIG4 represents the Big 4 Audit Companies, Lev represents Firm leverage.

Table 5 presents the regression result on the model that estimates the separate effects of corporate governance mechanism on agency cost. First the results on the role played by corporate governance mechanism to enhance asset utilisation are specifically depicted under Model 1, 2 and 3 of Table 5. Models 4, 5 and 6 of Table 5 present the regression result on model 2 that estimates the role of corporate governance mechanisms in reducing the expenses to sales ratio.

Board Size and Agency Cost (Asset Utilization Ratio)

The result from Model 1 depicts that, at 1% significance level, board size has a significant positive effect on the inverse measure of agency cost, that is, asset utilisation ratio. This implies that, to some extent large board size could possibly reduce the level of agency cost. The coefficient of 12.16 indicates that unit increase in board size will lead to a 12.16 decrease in agency cost. Therefore, the result fails to reject the first hypothesis that there is negative relationship between board size and agency cost. This is because large board size may play a crucial role in reducing the opportunistic behavior of management. This result is in line with Kamyabi, Majbouri and Ashae (2014) who found that there is a negative and significant relationship between agency cost and board size. Again, the results is in line with Gill, et al. (2012) who found that larger board size has a significant effect as a device in mitigating agency cost. Ang et al. (2000), Singh and Davidson (2003) also affirmed this claim. Finally, the results are in line with Hastori, Siregar,

Sembel, and Maulana (2015) who argued that a larger board reduces the level of agency cost.

It is good to note that the measure for board size is the square of board size and this has important implications for the results. First, it means that the coefficient of the board size is inverted U-shaped and thus escalating levels of board size could rather increase agency cost. Again, it could mean the average board size of the sampled firms is not too high to increase agency cost.

Board Independence and Agency Cost (Asset Utilization Ratio)

The result from Model 1b depicts that, at 5% significance level, board independence has a significant positive effect on the inverse measure of agency cost, that is, asset utilization ratio. This implies that board independence reduces the opportunistic behavior of managers and thus reduces the level of agency cost. The coefficient of 17.24 indicates that unit increase in board independence will lead to a 17.24 decrease in agency cost. Therefore, the result fails to reject the second hypothesis that there is negative relationship between board independence size and agency cost. This implies that a larger proportion of independent board members in boards make the board effective in their monitoring duties and therefore could constraint management on their opportunistic behavior.

This finding is in line with the theory of Fama and Jensen (1983) which argued that board of directors are considered essential in any organization because of the role they play in monitoring management and is perceived as to also play an important role in limiting or controlling agency problem. Again, the results corroborate that of Gul, Sajid, Razaq, and Afzal (2012) which found that the effectiveness of a board in reducing agency costs

is resides in the number on non-executive directors. Finally, the results corroborate that of Henry (2004) who concluded that agency costs are lower in boards that have a larger number of independent directors than a small board. However, the results contradict that of McKnight and Weir (2009) who argued that board independence have had little or no effect on agency costs in the UK.

Ownership Concentration and Agency Cost (Asset Utilization Ratio)

The result from Model 1C depicts that, at 5% significance level, ownership concentration board independence has a significant positive effect on the inverse measure of agency cost, that is, asset utilization ratio. This implies that, ownership concentration yields enough managerial monitoring to ensure high asset utilization. The coefficient of 51.60 indicates that unit increase in ownership concentration a 51.60 decrease in agency cost. Therefore, the result fails to reject the third hypothesis that there is negative relationship between ownership concentration and agency cost.

This means that the larger the concentration of ownership, the lesser the agency cost. This is because shareholders with higher proportion of ownership have greater incentive to monitoring the behavior of managers. This is in line with the law and finance theory by Shleifer and Vishny (1997) as well as Friend and Lang (1988) who argued that shareholders with higher amounts of ownership have a stronger incentive to monitor and protect their investment. Again, the results are in sync with that of Bukart (1995) who found that large shareholders may also prevent the possibility of a takeover bid, make managers to feel safer about their positions, hence corporate governance may help in the reduction of agency problems associated with managers. Finally, the results confirm that of Chen (2010) who found that

large legal person ownership is found to be most effective in reducing agency costs.

Board Size and Agency Cost (Expenses to sales ratio)

The result from Model 2a depicts that, at 1% significance level, board size has a significant negative effect on the direct measure of agency cost, that is, expenses to sales ratio. This confirms the results from model 1 that large board size could possibly reduce the level of agency cost. The coefficient of -11.87 indicates that a unit increase in board size will lead to a 11.87 decrease in agency cost. Therefore, the again result fails to reject the first hypothesis that there is negative relationship between board size and agency cost. This result is in line with the arguments of Gill, et al. (2012); Kamyabi, Majbouri and Ashae (2014); Siregar, Sembel, and Maulana (2015).

Board Independence and Agency Cost (Expenses to Sales Ratio)

The result from Model 2b depicts that, at 5% significance level, board independence has a significant negative effect on the direct measure of agency cost, that is, the expenses to sales ratio. This implies that, board independence reduces the opportunistic behavior of managers and thus reduces the level at which managers make expenses out of company funds for their selfish gains. The coefficient of -38.0 indicates that a unit increase in board independence will lead to a 38.0 decrease in agency cost. Therefore, the result fails to reject the second hypothesis that there is negative relationship between board independence size and agency cost. This means that a larger proportion of

independent board members in boards make the board effective in their monitoring duties and therefore could constraint management on opportunistic expenses. This is also in line with the findings of Fama and Jensen (1983); Henry (2004); Gul, Sajid, Razzaq, and Afzal (2012).

Ownership Concentration and Agency Cost (Expenses to Sales Ratio)

The result from Model 2c depicts that, at 5% significance level, ownership concentration has a significant negative effect on the direct measure of agency cost, that is, the expenses to sales ratio. This implies that, ownership concentration reduces the opportunistic behavior of managers and thus reduces the level at which managers make expenses out of company funds for their selfish gains. The coefficient of -16.82 indicates that a unit increase in ownership concentration will lead to a 16.82 unit decrease in agency cost. Therefore, the result fails to reject the second hypothesis that there is negative relationship between ownership concentration and agency cost. This means that a larger ownership concentration makes monitoring duties effective and therefore could constraint management on opportunistic expenses. This is in line with the findings of Bukart (1995) and Chen (2010).

Results of Control Variables and Agency Cost

In all the models presented in Table 5, firm size had a significant inverse relationship with agency cost. In relation to the asset utilization ratio, these results suggest that the large – sized firms, in terms of their asset base, may be able to achieve economies of scale and generate high sales or revenue. In the relation to the expenses to sales ratio, this result could mean that

efficiency gains from large asset base to help reduce expense and generate more sales. This result is in sync with that of Ibrahim and Samad (2011).

From all the models presented in Table 5, firm leverage had a significant inverse relationship with agency cost. This means that when firms take on a high level of leverage, it signals to shareholders that management will be responsible enough to achieve an appreciable level of profitability or earnings and this will require a reduction in opportunistic spending as well as increase in asset efficiency. This result is in line with the signaling theory proposed by Spence (1973).

Finally, in all the models presented in table 5, that the Big Four mostly had a significant negative relationship with agency cost. This means when a firm is being audited by any of KPMG, PWC, Ernst and Young, and Deloitte, there is a very low likelihood that the firms will be able to manipulate sales, expenses and asset figures (Chtourou, Bedard & Courteau, 2004) and thus managers may be compelled to reduce their opportunistic spending and poor asset utilization.

Diagnostics of the Results

Test of Joint Significance

The Wald test of joint significance was conducted to assess the adequacy of the regression results. The null hypothesis of this test that all the independent variables in a model are unable to jointly predict the dependent variable. The p-values of the Wald test rejected this null hypothesis in all the models of table 5 and this means that all the independent variables in each model jointly explain their dependent variable respectively. This again that all the R-square values in models 1- 6 of Table 5 are significant.

Interpretation of the R Square

In model 1a, 77.62% variation in the asset utilization ratio can be explained by the variation in the regressors. In model 2, 70.64 % variation in the asset utilization ratio can be explained by the variation in the regressors. In model 1c, 70.79% variation in asset utilization can be explained by the variation in the regressors. In model 2a, 69.9 % variation in the expense to sales ratio can be explained by the variation in the regressors. And in model 2b, 69.91 % variation in expenses ratio can be explained by the variation in the regressors. Finally, in model 2c, 69.91 % variation in expenses ratio can be explained by the variation in the regressors.

Chapter Summary

The descriptive statistics revealed that in all, the sampled listed companies do not have a high level of agency cost. The regression results revealed that board size, board independence and ownership concentration could have accounted for this. The control variables were also found to be significant predictors of agency cost.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter begins by presenting a summary of the research and more specifically the findings of the study. Further, the chapter concludes on the effect of corporate governance on agency cost of firms listed on the Ghana stock exchange, by employing asset utilization ratio and expenses to ratio as proxies for an agency cost. Finally, the chapter makes recommendations for both policy and future research.

Overview

Corporate governance has been emphasized in empirical literature and is now gaining roots in response to initiatives by some stakeholders such as the Ghana Institute of Directors (IoD-Ghana). Developing countries such as Ghana are now increasingly embracing the concept of good corporate governance, knowing it leads to sustainable growth. However, a review of these extent literature on corporate governance-firm highlights two issues. One of them is that corporate governance can greatly assist the firms by infusing better management practices and offering greater opportunities for growth and minimizing agency cost. However, in the context of Ghana, empirical literature has very little or no focus on corporate governance and agency cost. Based on this backdrop, this study sought to examine the effect of corporate governance on agency cost of listed companies on the Ghana Stock Exchange

Market.

The literature review provided an overview of governance regulatory framework in Ghana, theories employed in the study, and empirical evidence on the relationship between corporate governance and agency cost. The empirical review showed that findings on the relationship between corporate governance and agency cost vary significantly according to the context of the study. However, in general, the literature points to a negative relationship between corporate governance and agency cost, signifying that corporate governance could reduce the extent of agency cost faced by firms.

The study was based on the positivism research philosophy and the quantitative research approach. The study also employed the explanatory research design to estimate the model developed. The model specification sought to assess the effect of corporate governance on agency cost when assets utilization is employed as a proxy for agency cost as well as assess the effect of corporate governance on agency cost when expenses to sale ratio is employed as a proxy for agency cost. In addition, the study used 23 non-financial firms out of 41 firms listed on the GSE. The study excludes all financial firms from the sample since the accounting standards for income and profit for these firms are significantly different from other industries. The study mainly employed a random effect based on the Hausman test.

Summary of key Findings

A number of insightful and significant results that have good implications emerged from the findings of this study. The first objective of the study was to examine the effect of board size on agency cost. The second objective examined the relationship between board independence and agency

of GSE listed firms whilst the third objective examined the relationship between ownership concentration and agency cost. The summary of the findings on these objectives are summarized in the Table 6.

Table 6: Summary of Results on the Hypothesis

Hypotheses	Confirmation
H ₁ : There is a significant of negative effect of board size on agency cost of GSE listed firms.	Failed to reject
H ₂ : There is a significant negative effect of board independence on agency cost of GSE listed firms.	Failed to reject
H ₃ : There is a significant negative effect of board independence on agency cost of GSE listed firms.	Failed to reject

Source: Field survey, Assim (2019)

Conclusions

Based on the results from the study, some conclusions have been inferred:

In relation to the first hypothesis, the study concludes that a large board size is required to decrease the agency cost of firms listed on the Ghana stock exchange. Furthermore, the conclusion on the second hypothesis is that the board independence is negatively associated with high agency cost of firms listed on the Ghana stock exchange. Based on the third hypothesis, the study concludes that there is negative effect of ownership concentration on agency cost of firms listed on the Ghana stock exchange.

Recommendations

The findings of this research are of relevance to policy makers and regulators whose decisions directly affect corporate governance and agency cost of listed firms. In relation to the first conclusion, to enhance the level of stakeholder confidence in the company and its management, the board size could be a mechanism to minimize agency cost. However, the practice of having more large boards should be encouraged but with caution so that the large board size will rather ensure that minimal level of agency cost rather than escalating it. Secondly, board independence must be strengthened in order to reduce agency cost. Finally, large block shareholders should take the center stage in ensuring that agency cost is minimized. In general, in designing or revising corporate governance guidelines for listed firms, it would be very vital for the SEC to institute policies which ensures that firms adhere to these corporate governance mechanisms.

Suggestions for Future Research

First of all, other studies can extend this current study by examining the moderating role played by corporate governance structures in reducing agency cost of other firms which are not listed on the GSE. An extension of this study can be conducted for financial institutions listed on the GSE taking into consideration their peculiar accounting standards requirements for recognition of income and profit for these firms. Other sources and dimensions of corporate governance could also be employed. For instance, further studies can examine the role played by country level corporate governance mechanisms in reducing agency cost. Finally, further studies could employ other estimation techniques than those employed in this study.



REFERENCES

- Abor, J. (2007). Corporate governance and financing decisions of Ghanaian listed firms. *Corporate Governance: The International Journal of Business in Society*, 7(1), 83-92. <https://doi.org/10.1108/14720700710727131>
- Abor, J., & Adjasi, C. (2007). Corporate governance and the small and medium enterprises sector: theory and implications. *Corporate Governance: The International Journal of Business in Society*, 7(2), 111-122. <https://doi.org/10.1108/14720700710739769>
- Agrawal, A., & Knoeber, C. R. (1996). Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantitative Analysis*, 377-397.
- Agyemang, O. S., & Ansong, A. (2017). Corporate social responsibility and firm performance of Ghanaian SMEs. *Journal of Global Responsibility*, 2(3), 77-397.
- Agyemang, O., & Castellini, M. (2015). Corporate governance in an emergent economy: a case of Ghana. *Corporate Governance*, 15(1), 52-84. <https://doi.org/10.1108/cg-04-2013-0051>
- Agyemang, O. S., Aboagye, E., & Frimpong, J. (2014). Where does the relevance of corporate governance lie? *Business and Economics Journal*, 5(3), 1.
- Agyemang, O. S., Aboagye, E., Antwi, S., & Frimpong, J. (2014). Board of directors and firm performance of banking institutions: A Ghanaian experience. *European Journal of Economics, Finance and Administrative Sciences*, 67(6), 45-59.
- Akintoye, I. R. (2010). Corporate governance and reporting. In *Paper presentation at Interactive Forum for Accountants organized by ICAN, Ikeja Lagos*.

- Ansong, A., Agyemang, O. S., & Boateng, J. K. G. A. (2016). Codes of corporate governance: A comparative analysis between Ghana and the UK. *EuroMed Journal of Management*, 1(4), 317-329.
- Barton, J., & Simko, P. J. (2002). The balance sheet as an earnings management constraint. *The Accounting Review*, 77(1), 1-27.
- Becht, M., Bolton, P., & Röell, A. (2003). Corporate governance and control. In *Handbook of the Economics of Finance* (1), 1-109. Elsevier
- Beiner, S., Drobetz, W., Schmid, M. M., & Zimmermann, H. (2006). An integrated framework of corporate governance and firm valuation. *European Financial Management*, 12(2), 249-283.
- Bennedsen, M., & Wolfenzon, D. (2000). The balance of power in closely held corporations. *Journal of financial economics*, 58(1-2), 113-139.
- Berkman, H., Cole, R. A., & Fu, L. J. (2010). Political connections and minority-shareholder protection: Evidence from securities-market regulation in China. *Journal of Financial and Quantitative Analysis*, 1391-1417.
- Bhojraj, S., & Sengupta, P. (2003). Effect of corporate governance on bond ratings and yields: The role of institutional investors and outside directors. *The Journal of Business*, 76(3), 455-475.
- Bloch, F., & Hege, U. (2001). *Multiple large shareholders and control contests*. mimeo, HEC.
- Buckley, P. J., & Keasey, K. (1997). Cross-border governance in multinational enterprises. *Corporate Governance: Economic and Financial Issues*, 200-211.
- Cadbury, A. (1992). *Report of the committee on the financial aspects of corporate governance*, 1(1), 34-39.
- Chinelo, E. O., & Iyiegbuniwe, W. I. L. L. I. (2018). Ownership structure, corporate

- governance and agency cost of manufacturing companies in Nigeria. *Research Journal of Finance and Accounting*, 9(16), 16-26.
- Claessens, S., & Fan, J. P. (2002). Corporate governance in Asia: A survey. *International Review of Finance*, 3(2), 71-103.
- Coleman, A. K., & Biekpe, N. (2008). The relationship between board size, board composition, CEO duality and firm performance: Experience from Ghana (2005).
- Creswell, J. W. (2003). Research design: qualitative. *Quantitative, and mixed methods*.
- Crotty, M. (1998). *The Foundations of Social Research: Meaning and Perspective in The Research Process*. Sage.
- Davis, J. H., Schoorman, F. D., & Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of Management review*, 22(1), 20-47.
- De Andres, P., & Vallelado, E. (2008). Corporate governance in banking: The role of the board of directors. *Journal of banking & finance*, 32(12), 2570-2580.
- Dickens, W. T., & Lang, K. (1984). *A test of dual labor market theory* (No. w1314). National Bureau of Economic Research.
- Dyck, A., & Zingales, L. (2004). Private benefits of control: An international comparison. *The Journal of Finance*, 59(2), 537-600.
- Dzigba, D. (2015). Corporate Governance Practice among Small and Medium Scale Enterprises (SMEs) in Ghana; Impact on Access to Credit. *The International Journal of Business in Society*, 7(1), 83-92.
<https://doi.org/10.1108/14720700710727131>
- Eddleston, K. A., & Kellermanns, F. W. (2007). Destructive and productive family relationships: A stewardship theory perspective. *Journal of Business*

Venturing, 22(4), 545-565.

Edosdi, J. C. T. (2008). Hede kehe'hotzi'kahidi': My journey to a Tahltan research paradigm. *Canadian Journal of Native Education*, 31(1), 24.

Essa, S., Kabir, R., & Nguyen, H. T. (2016). Does corporate governance affect earnings management? Evidence from Vietnam. In *2016 Vietnam symposium in Banking and Finance (VSBF), Vietnam*.

Faccio, M., Lang, L. H., & Young, L. (2001). Dividends and expropriation. *American Economic Review*, 91(1), 54-78.

Fine, B. (2002). *Labour market theory: a constructive reassessment*. Routledge.

Florackis, C. (2008). Agency costs and corporate governance mechanisms: evidence for UK firms. *International Journal of Managerial Finance*.

Florackis, C., & Ozkan, A. (2009). The impact of managerial entrenchment on agency costs: An empirical investigation using UK panel data. *European Financial Management*, 15(3), 497-528.

Franks, J., Mayer, C., & Renneboog, L. (2001). Who disciplines management in poorly performing companies? *Journal of Financial Intermediation*, 10(3-4), 209-248.

Freedman, M., & Jaggi, B. (1988). Cleaning up their act. *Council on Economic Priorities Research Report*, 15(3), 497-528.

Friend, I., & Lang, L. H. (1988). An empirical test of the impact of managerial self-interest on corporate capital structure. *The Journal of Finance*, 43(2), 271-281.

Gallery, N., Hutchinson, M. R., Percy, M., & Erkurtoglu, L. (2008). An investigation of the association between corporate governance, earnings management and the effect of governance reforms. *Accounting Research Journal* 15(3), 497-528.

- Gill, A., & Shah, C. (2012). Determinants of corporate cash holdings: Evidence from Canada. *International Journal of Economics and Finance*, 4(1), 70-79.
- Gilson, R. J., & Gordon, J. N. (2003). Controlling controlling shareholders. *University of Pennsylvania Law Review*, 152(2), 785-843.
- Gogineni, S., Linn, S. C., & Yadav, P. K. (2013). Ownership structure, management control and agency costs. *College of Business, University of Wyoming, Laramie WY, 82072*.
- Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices. *The Quarterly Journal of Economics*, 118(1), 107-156.
- Gray, R., Kouhy, R., & Lavers, S. (1995). Corporate social and environmental reporting. *Accounting, Auditing & Accountability Journal* 5(3), 47-52.
- Grossman, S. J., & Hart, O. D. (1980). Takeover bids, the free-rider problem, and the theory of the corporation. *The Bell Journal of Economics*, 3(2), 42-64.
- Guthrie, J., & Parker, L. D. (1989). Corporate social reporting: a rebuttal of legitimacy theory. *Accounting and Business Research*, 19(76), 343-352.
- Hastori, H., Siregar, H., Sembel, R., & Maulana, A. (2015). Agency costs, corporate governance and ownership concentration: The case of agro-industrial companies in Indonesia. *Asian Social Science*, 11(18), 311-319.
- Henry, D. (2004). Corporate governance and ownership structure of target companies and the outcome of takeovers, *Pacific-Basin Finance Journal*, 12(4), 419-444.
- Hermalin, B. E., & Weisbach, M. S. (1991). The effects of board composition and direct incentives on firm performance. *Financial Management*, 152(2), 101-112.
- Hines, R. D. (1982). The usefulness of annual reports: the anomaly between the efficient markets' hypothesis and shareholder surveys. *Accounting and*

Business Research, 12(48), 296-309.

Holmstrom, B., & Kaplan, S. N. (2003). The state of US corporate governance: What's right and what's wrong, *Journal of Applied Corporate Finance*, 15(3), 8-20.

Hughes, S. B., Anderson, A., & Golden, S. (2001). Corporate environmental disclosures: Are they useful in determining environmental performance? *Journal of Accounting and Public Policy*, 20(3), 217-240.

Ibrahim, H., & Samad, F. A. (2011). Corporate governance mechanisms and performance of public-listed family-ownership in Malaysia. *International Journal of Economics and Finance*, 3(1), 105-115.

Ivankova, N. V., Creswell, J. W., & Plano Clark, V. L. (2007). Foundations and approaches to mixed methods research. *First steps in research. Pretoria: Van Schaik*, 152(2), 253-282.

Jensen, M. (1976). *Theory of the Firm: Managerial Behaviour, Agency Costs, and Ownership Structure*, 22.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational researcher*, 33(7), 14-26.

Kamyabi, Y., Yazdi, H. M., & Ashae, A. (2014). The impact of corporate governance and ownership structure on agency cost in listed companies of Tehran stock exchange. *International SAMANM Journal of Finance and Accounting*, 2(2), 35-47.

Klein, A. (2002). Economic determinants of audit committee independence. *The Accounting Review*, 77(2), 435-452.

Kukah, M. A., Amidu, M., & Abor, J. Y. (2016). Corporate governance mechanisms and accounting information quality of listed firms in Ghana. *African Journal*

of Accounting, Auditing and Finance, 5(1), 38-58.

Kukah, M. A., Amidu, M., & Abor, J. Y. (2016). Corporate governance mechanisms and accounting information quality of listed firms in Ghana. *African Journal of Accounting, Auditing and Finance*, 5(1), 38-58.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2008). The economic consequences of legal origins. *Journal of Economic Literature*, 46(2), 285-332.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal determinants of external finance. *The Journal of Finance*, 52(3), 1131-1150.

Laffont, J. J., & Tirole, J. (2001). *Competition in telecommunications*. MIT press.

Lang, W. W., & Jagtiani, J. A. (2010). The mortgage and financial crises: The role of credit risk management and corporate governance. *Atlantic Economic Journal*, 38(2), 123-144.

Leedy, P. D., & Ormond, J. E. (2005). Review of the related literature. *Practical Research: Planning and Design*, 64-84.

Lehmann, E., & Weigand, J. (2000). Does the governed corporation perform better? Governance structures and corporate performance in Germany. *Review of Finance*, 4(2), 157-195.

Magalhaes, R., Gutiérrez Urriaga, M., & Tribó, J. A. (2010). Banks' ownership structure, risk and performance. *Available at SSRN 1102390*, 38(2), 123-144.

Maury, B., & Pajuste, A. (2005). Multiple large shareholders and firm value. *Journal of Banking & Finance*, 29(7), 1813-1834.

McKnight, P. J., & Weir, C. (2009). Agency costs, corporate governance mechanisms and ownership structure in large UK publicly quoted companies: A panel data analysis. *The Quarterly Review of Economics and Finance*, 49(2), 139-158.

Meckling, W. H., & Jensen, M. C. (1976). Theory of the firm: Managerial behavior,

agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.

Mensah, S., Aboagye, K., Addo, E., & Buatsi, S. (2003, October). Corporate governance and corruption in Ghana: Empirical findings and policy implications. In *African Capital Markets Forum*. 4(7), 34-45.

Neu, D., Warsame, H., & Pedwell, K. (1998). Managing public impressions: Environmental disclosures in annual reports. *Accounting, Organizations and Society*, 23(3), 265-282.

Pagano, M., & Röell, A. (1998). The choice of stock ownership structure: Agency costs, monitoring, and the decision to go public. *The Quarterly Journal of Economics*, 113(1), 187-225.

Parrino, R., Sias, R. W., & Starks, L. T. (2003). Voting with their feet: Institutional ownership changes around forced CEO turnover. *Journal of financial economics*, 68(1), 3-46.

Parrino, R., Sias, R. W., & Starks, L. T. (2003). Voting with their feet: Institutional ownership changes around forced CEO turnover. *Journal of Financial Economics*, 68(1), 3-46.

Patton, M. Q. (1975). Alternative evaluation research paradigm.

Pfeffer, J. (1972). Size and composition of corporate boards of directors: The organization and its environment. *Administrative Science Quarterly*, 218-228.

Roberts, G., & Yuan, L. E. (2006). *The role of institutional ownership in corporate governance: A new perspective*. Working Paper, Schulich School of Business, York University.

Robson, C. (2002). *Real world research: A resource for social scientists and practitioner-researchers* (Vol. 2). Oxford: Blackwell.

- Sajid, G., Muhammad, S., Nasir, R., & Farman, A. (2012). Agency cost, corporate governance and ownership structure: The case of Pakistan, Karachi.
- Saunders, G., Cooke, B., McColl, K., Shine, R., & Peacock, T. (2010). Modern approaches for the biological control of vertebrate pests: an Australian perspective. *Biological control*, 52(3), 288-295.
- Saunders, M. N., & Townsend, K. (2016). Reporting and justifying the number of interview participants in organization and workplace research. *British Journal of Management*, 27(4), 836-852.
- Saunders, M., Lewis, P., & Thornhill, A. (2003). Research methods for business students. *Essex: Prentice Hall: Financial Times*.
- Saunders, M., Lewis, P., & Thornhill, A. (2003). Research methods for business students. *Essex: Prentice Hall: Financial Times*.
- Singh, M., & Davidson III, W. N. (2003). Agency costs, ownership structure and corporate governance mechanisms. *Journal of Banking & Finance*, 27(5), 793-816.
- Verbeek, M. (2008). *A guide to modern econometrics*. John Wiley & Sons.
- Wang, J., Chen, M. H., Fang, C. Y., & Tian, L. (2018). Does board size matter for Taiwanese hotel performance? Agency theory or resource dependence theory. *Cornell Hospitality Quarterly*, 59(4), 317-324.
- Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data*. MIT press.
- Yermack, D. (2006). Board members and company value. *Financial Markets and Portfolio Management*, 20(1), 33-47.
- Zahra, S. A., & Pearce, J. A. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, 15(2),

291-334.

