UNIVERSITY OF CAPE COAST

EFFECTS OF BOARD COMPOSITION ON PERFORMANCE OF LISTED

FIRMS IN GHANA

JOSEPH MENSAH

2020

UNIVERSITY OF CAPE COAST

EFFECTS OF BOARD COMPOSITION ON PERFORMANCE OF LISTED

FIRMS IN GHANA

BY

JOSEPH MENSAH

Thesis submitted to the Department of Accounting of the 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 Commerce degree

in Accounting

MARCH 2020

DECLARATION

Candidate's Declaration

I hereby declare that this thesis 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…………….

Name: Joseph Mensah

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature………………………   Date……………

Name: Dr. Mohammed Zangina M. Isshaq

Co-Supervisor's Signature……………………………..   Date……………

Name: Mr. Seyram Kawor

ABSTRACT

This study examines the effect of board composition on performance of listed firms in Ghana. It employed the explanatory research design. Criterion-based sampling technique was used to select eight (8) financial listed firms and twenty-two (22) non-financial listed firms in Ghana. Published annual reports of listed firms were the main secondary source of data for this study. The study specifically examined the impact of board size on performance of firms. It also ascertained the effect of gender diversity on performance of firms. It finally evaluated the effect of board independence on performance of firms listed on Ghana Stock Exchange using ROA, ROE and SMR as the measures of performance for the financial and non-financial listed firms. Using panel regression model, the study found that board size has positive influence on operational or accounting performance of the financial listed firms but has no influence on their stock market performance. It also indicates that both accounting and market performance of non-financial listed firms are not affected by the board size. It also found that board gender diversity has no influence on the performance of both financial and non-financial listed firms in Ghana. The study finally revealed that board independence has significant positive effect on accounting performance of both financial and non-financial listed firms but has no significant influence on stock market performance of both groups of firms in Ghana. The study recommends that shareholders and other stakeholders in the financial sector should consider having relatively large board size for effective monitoring of management's activities. Stakeholders should ensure that boards of listed firms have high proportion of outside directors to improve performance in their operations.

KEY WORDS

Corporate Governance

Board Diversity

Board Independence

Performance

Listed Firms

Board Size

ACKNOWLEDGEMENTS

DEDICATION

To my children: Kobina and Ama

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

The chapter deals with the background to the study which looks at the key area of the subject matter including board size, gender diversity of board, independence of the board and listed firms' in Ghana performance. It also highlights the statement of the problem, purpose of the study, research question, research hypotheses, and significance of the study, delimitation and limitations of the study as well as the organisation of the study.

Background to the Study

The financial embarrassments and collapses of firms which have hit nearly each nation has made the concept of corporate governance gotten to be a topical issue within the world of trade nowadays. Reacting to the emergency, nations around the globe are either creating corporate administration codes or patching up those that are as of now in presence (Mallin, 2001). The UK corporate administration Code (Financial Reporting Council (FRC), 2012) formally the Combined Code is one of the foremost comprehensive national corporate administration codes and it has served as the bedrock for most other national administration codes, counting the Ghanaian corporate administration standards of good practices.

Many corporate failures that have plagued the world even after the acceptance of the corporate governance concept cast doubt on the value-saving power of the practice (Abdullah, Ismail & Nachum, 2012). The recent global financial crisis which erupted in 2007 in the USA is a typical example of the doubts about corporate governance (Adams, 2012; Kaplan, 2009). For

1

example the collapse of Lehman Brothers Inc. (as a result of the financial crisis in 2008) has been described as the biggest bankruptcy in the history of the United States. Ghana is not exempted from the issue of business failures as a result of poor corporate governance. For example, the collapse of co-operative bank and banks for housing and construction in Ghana were due to poor corporate governance. For this and other reasons, policy makers and regulators endeavor to augment and regularly update the principles of corporate governance (Kirkpatrick, 2009).

In later years, corporate boards have ended up the foremost imperative internal control instrument in corporate governance that shareholders utilize to control and monitor administration in organizations. Earlier studies (Hermalin & Weisbach 2003; Rose, 2007; Fama & Jensen, 1983) contend that one of the conclusive points of shaping corporate boards is to distinguish and establish key organizational structures which will adjust and advance interface of partners with that of administration. In any case, the adequacy of the board to screen the execution as well as put management on their toes depends upon a few components which will incorporate the boards' differences, capabilities and involvement, association in a different directorship position, level of share proprietorship as well as the sort of compensation plot advertised to spur the interest of the individuals (Rose, 2007).

The argument about corporate governance best practices is whether board composition in terms of board diversity, independence and size affects firm's performance. That is why gender diversity in the boardroom and in top executive positions has been the focus of public debate, academic research,

government considerations and corporate strategy for more than a decade now. Gallego-Álvarez, García-Sánchez & Rodríguez-Dominguez (2010) contended that demand for gender diversity remains quite controversial. They stated that as diversity may lead to an improvement in monitoring management, due to greater boardroom independence and more complex and exhaustive decision-making processes at the same time as diversity increases creativity, more complexity in decision-making is generated, which will imply potential conflicts and a lower degree of cohesion.

A few ponders (Abdullah et al., 2012; Bianco, Ciavarella, & Signoretti, 2011) too have considered the impact of board size as a corporate governance component on the execution of firms. Agreeing to Siriwardhane (2003) when there is an increment in group estimate there's co-ordination issue hence small board estimate is way better. But Coles, Daniel & Naven (2008) concluded that larger board size upgrades firm's value since the board will back and exhort firm's administration and monitor work effectively. Studies on impact of board measure on firms' execution are of intrigued since variables that drive the choice of board measure in firms might contrast. For occurrence, components affecting board size in huge firms are likely to contrast from little firms. Besides, board measure may not be a fair shift by firm level characteristics but by varieties in national administration, instruments, organization and lawful regulations (Karamanou & Vafeas, 2005).

The measure of a board is seen as a vital tool in impacting the checking and decision-making handling (Haniffa & Hudaib, 2006; Larmou & Vafeas, 2010; Fauzi & Locke, 2012) in this manner improving firm execution. Board measure in affecting firm execution is prove by number of experimental

thinks about in later a long time (Fuzi, Adliana, & Julizaerma, 2016; Alves, 2014; Hillman & Dalziel, 2003) Be that as it may, observational discoveries have been blended and uncertain and a number of issues have been ascribed with regard to the clashing discoveries of past studies.

The same circumstance can be watched in ponders on the effect of board independence on firm execution. The blended earlier prove makes it troublesome to anticipate whether there will be an impact on firm execution in a nearness of more or less autonomous chiefs in a board. A few thinks about found that firm execution increments in nearness of more exterior chiefs (Agrawal & Knoeber, 1996; Bhagat & Dark, 2002). Other perceptions contended that autonomous chiefs are less viable due to their restricted access to data (Adams & Ferrira, 2007; Harris & Raviv, 2008). Wen, Rwegasira and Bilderbeek (2002) found an altogether negative relationship between number of exterior executives on the board and use and contended that exterior executives tend to screen supervisors more effectively, causing these directors to receive lower use for getting moved forward execution results.

In Ghana corporate administration is being reinforced by the works of a few partners such as the Ghana Institute of Directors (IoD-Ghana), in collaboration with the Commonwealth Affiliation of Corporate Administration. Once more, there a number of laws that give for administration structures for companies in Ghana. These laws incorporate the Companies Act 2019 (Act 992), which gives for administration of all companies joined in Ghana. Within the Companies Act, there's a deliberate endeavor to streamline corporate hones within the nation. For instance, the Act

4

stipulates a minimum of two directors for a company with no ceiling on the maximum number.

With regards to the number of executive and non-executive board members, Ghana Stock Exchange (GSE) Listing Regulations require that at least 50% of the board members must be non-executive directors. The board makes strategic decisions and ensures that management perform their responsibilities well towards the achievement of the objectives of the firm. They act as the representatives of the shareholders and the other stakeholders of the firm and monitor the activities of the managers. A number of regulatory frameworks and laws including the Sarbanese-Oxley Act (in the USA), the UK Corporate Governance Code, and the Ghanaian Guidelines on Corporate Governance Best Practices have been created which indicate a number of principles that must be upheld by the board and management to protect the assets of investors, boost corporate performance and to ultimately prevent the occurrence of corporate failures.

Statement of the Problem

Boards of directors of firms have overall responsibility of ensuring effective decision making and proper monitoring of the activities of management to ensure that firms achieve their objectives. Failure on the part of the board to ensure effective and efficient corporate governance affects the performance of the firms. In-depth investigations into the demise of top profile companies such as Lehman Brothers Inc., Enron, WorldCom in USA revealed that board of directors and accountants failed to act in the best interest of shareholders, stakeholders, and society (Rittenberg, Schweiger & Johnstone, 2008).

In Ghana, the collapse of three major banks such as Bank for Housing and Construction, Co-operative Bank and Bank for Credit and Commerce in 2000 was due to poor corporate governance which led to insufficient capital buffer and liquid asset and inefficient risk management (Amidu, 2007). Quite recently the collapse of UT Bank and Capital Bank in 2017 was also due to poor corporate governance on the part of their boards of directors. This was confirmed by the statement made by the Governor of the Bank of Ghana, Dr. Ernest Addison, in his address at the annual dinner of Chartered Institute of Bankers, Ghana (CIBG) in December 2, 2017.

> "Let me be upfront and say that though the failure of the two banks was due to significant capital deficiencies, the underlying reason was poor corporate governance practices within these institutions. In this instance, we saw the dominant role of shareholders who exerted undue influence on management of the banks, leading to poor lending practices. This was also reinforced by weak risk management systems and poor oversight responsibility by the boards of directors." (The Ghanaian Banker, 2019).

The emerging argument is whether board diversity enhances corporate performance (Ahern & Dittmar, 2012). A number of studies have been done to examine the impact of board size, board independence and board diversity on the performance of firms in most developed economies (Abdullah et al., 2012; Ahern & Dittmar, 2012; Amran, 2011; Bianco, Ciavarella, & Signoretti, 2011).

Studies in Ghana by Kyereboah-Coleman and Biekpe (2006) looked at board size, board composition, CEO duality and performance of non-financial

6

listed firms and Abor and Bieke (2007) looked at corporate governance, ownership and performance of small and medium scale enterprises in Ghana. In addition, Kyereboah-Coleman and Amidu (2008) examined the link between corporate governance and performance of small and medium scale enterprises in Ghana. Agyapong and Appiah (2015) explored the relationship between board gender diversity and performance of non- financial listed firms. Osei (2016) examined board gender diversity and performance of listed firms in Ghana; Isshaq, Bokpin and Onumah (2009) studied on Corporate governance, ownership structure, cash holdings, and firm value on the Ghana Stock Exchange while Darko, Aribi and Uzonwanne (2016) worked on the impact of board structure, ownership structure and corporate control on performance of listed companies in Ghana.

These studies in Ghana revealed mixed and conflicting results. Osei (2016) in her research found that the proportion of women directors on the board positively affects the profitability of listed firms in Ghana. This is in contrast with the findings of research by Agyapong and Appiah (2015), which revealed that the percentage of women directors on the board has no statistically significant relationship with performance. Also, Isshaq, et al. (2009) found that board size has positive significant relationship with performance while the findings of Darko et al. (2016) reveals that board size has no significant impact on performance. Kyereboah-Coleman and Biekpe (2006) concluded that board independence has negative effect on performance which is contrary to the finding of Abor and Bieke (2007) that board independence has positive effect on profitability.

Abor and Bieke (2007) and Kyereboah-Coleman and Amidu (2008) concentrated on small and medium scale enterprises in Ghana which do not cover the other large scale companies in Ghana. Therefore, the failure of some companies as a result of board inefficiencies and the gaps and mixed results in some literature that exist in Ghana have necessitated the need to investigate the impact of board composition on performance of both financial and non-financial listed firms in Ghana.

Research Objectives

This study examines the effect of board composition on performance of listed firms in Ghana. Specifically, the study seeks to:

(a) Examine the effect of board size on firm performance;

(b) Ascertain the effect of board gender diversity on firm performance; and

(c) Evaluate the effect of board independence on firm performance.

Research Hypotheses

Six hypotheses emanated from the research objectives. Each specific objective has two hypotheses as the study looks at the effect of board size, board gender diversity and board independence on performance of financial and non-financial listed firms in Ghana separately. The financial firms have additional high regulations from Bank of Ghana and Insurance Commission, therefore this study evaluates the effect of these corporate governance variables on their performance separately from the non-financial firms. The null hypotheses of the study are:

- H_{1a}: There is no significant effect of board size on performance of financial listed firms

- H_{1b}: There is no significant effect of board size on performance of non-financial listed firms

- H_{2a}: There is no significant effect of board gender diversity on performance of financial listed firms

- H_{2b}: There is no significant effect of board gender diversity on performance of non-financial listed firms

- H_{3a}: There is no significant effect of board independence on performance of financial listed firms

- H_{3b}: There is no significant effect of board independence on performance of non-financial listed firms

Significance of the Study

This study specifically examines the effect of board size, board gender diversity and board independence on performance of financial and non-financial listed firms in Ghana. The findings from the study will be of benefit to academia by contributing to literature for further research work. It will help shareholders and other stakeholders of firms to formulate right policies on the size, the gender diversity and the independence of their boards of directors.

Delimitation

The study covers listed firms on Ghana Stock Exchange. Data on listed companies only were used. The data cover ten-year period from 2008 to 2017. Non- listed firms in Ghana were not covered. The study is delimited to only board size, board gender diversity and board independence.

Limitations

This study is associated with some limitations. First, it employed firms listed on Ghana Stock Exchange and therefore, generalizing the results to all firms in Ghana will be difficult. Hence the findings may be considered appropriate for only situations similar to this study area and care must be taken when generalizing the result.

The study focused only on board size, board gender diversity and board independence to determine their impact on firm performance. While the characteristics covered are important, there are other board variables such as age, educational qualifications, ethnicity and race of directors as well as CEO duality that could be considered. Hence, further studies should include the other board characteristics variables to determine firm performance.

Organization of the Study

This study is organized in five chapters. Chapter one presents the background to the study, statement of the problem and objectives of the study. It also outlines the research hypotheses, the significance, the scope and the limitations of the study. The second chapter reviews the relevant literature on theories, concepts and core issues of the study. Chapter three outlines the methodology of the study, methodological issues considered here include the research design, study population, sampling procedures, data collection and processing. Other considerations are statistical procedures and data analyses. Chapter four presents results or findings of the study. This section features an in-depth discussion of findings and their implications. The final Chapter is devoted to summary, conclusion and recommendations based on the findings of the study.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter delves into the theoretical foundations of corporate governance as well as the composition and functions of the board of directors in corporate governance. This is followed by the discussion on the extant views on the issue of board size, board gender diversity, board independence and firm performance.

Theoretical Review

Feminist Conflict Theory

Feminist strife theory contends that ladies have been prohibited from numerous of the foremost imperative open circles of advanced social, political and financial life as well as company or corporate boards. The women's activist struggle hypothesis looks for to draw consideration to the lawful barriers to women's cooperation within the open world, and overcome these obstructions. With respect to the thinks about of peace and strife, the exercises of ladies in war has been the question to investigate (Steans, 1998). Imperative apparatuses for the operationalization of women's rights have been the Joined together Countries human rights. Faultfinders, in any case, contend that the collection of observational data almost ladies, in spite of the fact that critical, is made at the cost of any appraisal of the basic highlights of relations of disparity between men and ladies (Whitworth, 1997).

Feminist strife hypothesis holds that, riches, control or position and status are profitable assets but rare; the inalienable nature of men and the shortage of these assets implies taming of the part of ladies in society

11

(Skjelsbaek, 2010; Dahlerup 2013). This can be against the foundation that ladies on board of companies are basic resources. Concurring to Robinson (2008), participation by ladies in beat administration encompasses a positive affect on firm execution. Be that as it may, Herring (2009) stated that differing qualities at beat level administration may make struggle, lower bunch cohesiveness, increase worker truancy and turnover and lower quality and execution in this way causing a diminish within the esteem of trade.

The contention in support of a gender-diverse board is that it may cause a firm to gain more benefit and have a one of a kind qualities which includes to shareholders' esteem (Carter, Simkins & Simpson, 2003). There's too the see that ladies have distinctive proficient encounters as compared to their male accomplices, when it comes to the part of sexual orientation in board of chiefs (Nielsen & Huse, 2010).

Agency Theory

The agency theory has been the fundamental concept of corporate administration that examines the connections among shareholders, boards of directors and other stakeholders. It emphasizes the obligations of supervisors and the boards of directors as the representatives of proprietors (Jensen & Meckling 1976). High control and observation of choices and exercises of management or supervisors by the board will result in the more noteworthy security of shareholders (Ragothaman & Gollakota 2009). The usage of corporate administration in this case at that point may reflect the work out of a guardian commitment, and it is the obligation of the board as the representatives of firm proprietors, to ensure esteem maximization of performance through supervisors, not only for the shareholders and partners,

12

but moreover for the advancement of financial and economic system (Andres & Vallelado 2008).

An organization relationship is "a contract beneath which one or more people (vital) lock in another individual (operator) to perform a few benefit on their sake, which includes appointing a few decision-making specialist to the agent" (Jensen & Meckling 1976). This hypothesis depicts the relationship between the foremost (proprietors) of firms and the specialists (supervisors) that ought to be well overseen so that they may act within the best intrigued of the central. The relationship between the central and the operator appears the division of ownership and control within the firms (Fama 1980; Fama & Jensen 1983). This relationship includes assigning a few decision-making authorities to the agent.

Organization hypothesis is the elemental hypothesis to heighten board checking and move forward execution. This hypothesis depicts the estimate of the board delineating the level of control worked out by administration. The agency theory places the size of the board partly as a critical component of corporate board in ensuring monitoring intensity in resolving agency conflict and improving firms' performance. The theory postulates that board size can affect the effectiveness of board's monitoring and control activities.

The board has the duty to guarantee that administration prioritizes the interface of shareholders, so office hypothesis has recommended that a more different board screens directors adequately since board differences increments board autonomy (Carter, D'Souza, Simkins & Simpson, (2010). Board autonomy makes more motivations to screen administration. Hence, gender diversity, as one sort of board differences, may improve the board as a

13

component to control and screen supervisors and may augment the freedom and independence of the board (Campbell & Vera 2008), which may influence firm's execution emphatically.

Agency theory describes the relationship between one party, the principal (e.g. shareholder), that delegates work to another, the agent (e.g. managers). It explains their variances in behavior or decisions by observing that the two parties often have different goals and, regardless of their respective goals, might have different attitudes towards risk. The primary function of the board, which is to monitor the actions of managers (agents) and to protect the interest of stakeholders (principals), should be maximized. Monitoring by the board here is essential to reduce what is called an agency cost which is incurred when management acts on behalf of its own interest rather than prioritizing the welfare of shareholders (Hillman & Dalziel 2003).

Based on the concept given by the OECD (2004), corporate administration incorporates a set of connections between a firm's administration, its board, its shareholders and other partners that give the structure through which the targets of the firm are set, and the implies of accomplishing those targets and observing execution are decided. Moreover, concurring to the standards of corporate administration (OECD 2004), great corporate administration ought to give legitimate motivations for the board and administration to work towards the interface of the firm and its shareholders.

Resource Dependence Theory

Resource dependency theory, as assets reliance theory was created by Pfeffer and Salancik in 1978. Sheets are chosen to maximize the arrangement

14

of vital assets to the firm. They contended that sheets serve to connect the organization to other outside organizations in arrange to address natural conditions. They moreover contended that the extent of free chiefs was emphatically related to the level of natural requests. The hypothesis sees firms as working in an open framework and they got to obtain certain assets in arrange to outlive within the framework. They in this manner depend on outside units in their environment. This portrays that one vital board work is the arrangement of assets to the firm (Johnson et al. 1996).

Klein, (1998); Hillman & Dalziel, (2003) recommends that admonitory needs of the CEO increments with the degree to which the firm depends on the environment for assets. So, expanding board size and board freedom joins the entity to its external environment and secures critical resources. In response to resource dependencies and regulatory pressures, organisations create large boards to encompass directors from different backgrounds (Pfeffer, 1972; Pearce & Zahra, 1992).

One of the basic propositions of resource dependence theory is the need for an environmental linkage, and environmental linkage is a direct function of the levels and types of external dependence facing an organization. Several studies report relationships between a firm's environment and the degrees of linkage. Stiles (2001) suggests in particular, that board diversity might make easy access to resources vital to the firm, which indicates that diversity, relating to age, gender and nationality, can have a positive impact on performance.

A more differing board can advantage from a more prominent understanding of its clients (Carter, Simkins and Simpson, 2003) or other

15

partners. Wen et al. (2002) found a negative relationship between the number of external directors on the board and leverage and contended that external directors tend to screen executive directors more effectively, causing these supervisors to receive lower leverage for getting good result. Also, firms with higher extent of external directors tend to seek low financial leverage with a tall esteem of value.

On the opposite, Jensen (1986) and Berger, Ofek and Yermack (1997) contend that firms with higher leverage have generally more external directors whereas firms with low rate of external directors encounter lower leverage. Expanding diversity or differing qualities will moreover make more data sources, but sometimes at the cost of less conclusiveness (Randöy, Thomsen & Oxelheim, 2006). Asset reliance hypothesis hence concludes that it is likely the best performing management teams consist of members that represent variety in terms of experience, working background, age, ethnicity, and gender.

Stakeholder Theory

One of the speculations that reflect on corporate administration is the stakeholder theory. Freeman (1984) characterized stakeholders or partners as any entity or person who can influence or is influenced by the accomplishment of the firm. This hypothesis emphasizes that the organization is portion of a broader social framework wherein the organization impacts on, and is affected by, other bunches or entities inside society (Deegan 2002). Those intrigued bunches have control to thrust the organization to comply with their desires. Hasnas (1998) states that board ought to oversee the trade for the good of all stakeholders. This hypothesis keeps up that the targets of the firm ought to be

16

inferred by adjusting the conflicting claims of the different partners within the firm, such as supervisors, representatives, stockholders, providers, and sellers (Clarke 2004).

Based on the partner hypothesis board individuals are anticipated to work out a few parts in connection to social duty. Concurring to Hung (2011), these parts incorporate overseeing the interface of the partners of the organization. This part is called an organization-oriented part. Besides, board individuals help in ensuring the interface of their organization as partners in society (a society-centered part). The organization-centered parts comprise of direction-setting parts, which reflect the execution measurement, and gatekeeper parts as the adjusting measurement. At that point, the society-centered parts suit the social organizing part at the inward circle, and the social support part within the external circle. Board members who are able to manage these parts satisfactorily are likely to improve organizational, societal and natural welfare (Hung, 2011).

In connection to the commitment of the board to fulfill stakeholders' needs there is the requirement for more differentiated boards. Based on the contentions supporting the financial or trade case of gender differences within the meeting room, ladies are accepted to have the capacity to do this assignment. It is since, for illustration, ladies understand the market more so that they may be able to tune in to customers' necessities (Burke & Mattis, 2000). Subsequently, the partner hypothesis is pertinent for utilize as a premise to explain the relationship between sexual orientation differences within the meeting room and a firm's execution

17

Role of Corporate Boards

The board of directors of an organization can be reckoned as a team brought together to work towards achieving organisational goals (Langton & Robbins, 2007). Being placed in a hierarchy above the chief executive and other managers, the board plays a strategic role in the firm's decision making Strategic decision making is central to firm performance. Those decisions are not the day-to-day decisions, rather they include infrequent decisions taken by the top management of the firm, which have a direct bearing on a firm's survival. Eisenhardt and Zbaracki (1992) considered strategic decisions crucial for a firm's future course. Strategic decisions are concerned with fundamental issues such as location, products, financing and timing and all these aspects will determine survival, success or failure of a firm.

Composition of board and the competencies it possesses are important organisational resources (Ljungquist, 2007). Such resources become a source of competitive advantage for firms and help them achieve good performance (Campbell-Hunt, 2000). Team composition and characteristics are therefore important precursors to effective group decision making and firm performance. Boards are the focus of attention by different corporate governance codes issued as a guide to practitioners. According to Carlson (2001) the central issue of all corporate governance codes is the importance of an independent and competent board. Boards' function was mainly viewed in terms of overseeing management, reviewing performance, and ensuring that the various activities of a firm are socially responsible and in compliance with the law. They make strategic decisions and the chief executive officers (CEO's) and other management implements theme for the achievement of

organizational goals. Rindova (1999) argued that directors possess valuable problem solving expertise that can be used along with the management for strategic decisions.

The boards establish strategic direction, overseeing firm's strategy, assessing and monitoring performance and also ensure implementation. They ensure legal compliance and assume active guardianship of the shareholder's interest whilst also proving independent oversight of top management. Garrett (1993) argued that a director should be concerned with developing and communicating the corporate vision, mission, strategy and structure to ensure a firm's survival and sustained success. A similar view was taken by Lorsch (1997), who emphasised that good board performance is achieved by providing effective monitoring, advice and counsel to management, which are also essential for superior firm performance.

In addition to taking active part in strategy formulation, boards are also expected to examine business alternatives. Coulson-Thomas (1993) suggested that boards should play an active role in looking for business opportunities, and determining the firm's purpose. Donaldson (1995) suggests that while management is expected to turn strategic vision into operational reality, board must evaluate strategy based on firm's returns compare with those of other investments.

Wheelen and Hunger (2004) summarized the basic tasks of boards as follows:

Monitor: A board should keep itself abreast of developments, both inside and outside the corporation. In addition to using the information in its decision-

making, it can also bring to management's attention developments it might have overlooked.

Evaluate and influence: A board can examine management's proposals, decisions, and actions; agree or disagree with them; give advice and offer suggestions; and outline alternatives. More active boards do this in addition to monitoring management activities.

Initiate and determine: A board can delineate a corporation's mission and specify strategic options to its management.

In the last decade, the scope of board activities has gained newer dimensions. Boards are responsible not only for firm strategy but also accountable in case the organization does not function in the best interest of various stakeholders. This emphasis on the need for information and reporting systems and the need to anticipate and ensure that minor matters do not become major problems in the organization.

Board Characteristics and Composition

The board of directors is the major body responsible for the corporate governance of a firm. It is responsible for overall policy and strategic direction and drives the overall performance of the firm. The board of directors is generally believed to be monitoring and controlling managers, providing information and counsel to managers, monitoring compliance with applicable laws and regulations, and linking the corporation to the external environment (Mallin, 2004; Monks & Minow, 2004). Board characteristics and board composition that include, for example, the number of independent boards, the tenure of boards, the size of the board, as well as board diversity in terms of gender, age, ethnicity, nationality, educational background, industrial

20

experience and organizational membership, may influence firm performance (Campbell & Vera 2008).

Gender diversity considers different skills and potentials of women and men as equal resources. Feminist theories encourage more women to be on boards of directors. Some people believe that boards form the headships of firms and are required to take decisions that call for the exercise of authority, power and bravery, all being attitudes that are decidedly masculine (Abdullah et al., 2012; Amran, 2011; Croson & Gneezy, 2009). This view is supported by those who think that women possess certain attitudes (such as being risk averse and putting societal and stakeholders' interest ahead of shareholders. These attitudes are perceived by some to suggest that the firm is less likely to function in a way that is not in the interest of shareholders.

The effectiveness of women on boards in some lands is influenced by traditional beliefs (Branson, 2011). For example in Ghana it is generally perceived that women lack courage, and even the requisite know-how for such a top-level task. A resource dependency perspective suggests that women's presence is likely to be perceived as hurting boards' ability to connect with the typically male-dominated external resources (Dezsö & Ross, 2012). It may also be regarded as likely to lower the firm's legitimacy and reputation, thus weakening its ability to link to valuable resources and increasing the challenge of interaction with them. This assertion is supported by the findings of Bigelow and Parks (2006). They find that male investors are ready to invest three times more money in male-led firms than in female-led firms.

On the other hand, there are views and theories that preach for the presences of women on boards of directors. One view is that women behave

differently as board members, so their presence changes board behavior (Adams & Ferreira, 2009). Agency theory supports the importance of diversity on boards, and gender is an important diversity dimension. Women directors bring different attitudes, values, and expertise to the decision-making processes, which lead to more careful evaluation of alternatives (Dezsö & Ross, 2012).

The presence of women is also likely to increase boards' independence of management, an attribute that is maintained to improve monitoring (Fama & Jensen, 1983). Adams and Ferreira (2009) believe that women function on boards more likely as independent directors than their male counterparts. Another argument is that, because they do not belong to the ''old boys club,'' female directors could more closely correspond to the concept of the independent director emphasized in theory (Abdullah et al., 2012; Adams & Ferreira, 2009).

Other important aspect of board composition is its size. There are various arguments on the size of the board. Yermack (1996) suggests that bigger boards are associated with lower firm value because of the problems of poor communication and decision-making. Also, smaller board size contributes better to the successes and future of the firm (Jensen, 1993). When a group increases in size there is co-ordination problem therefore smaller board size is better (Siriwardhane, 2003). Others also say that the larger board size enhances firm's value since the board will support and advise firm's management and monitor job effectively because of organizational culture and complexity of business environment (Coles, Daniel & Naven, 2008; Klen, 1998).

22

The proportion of non-executive and executive directors is also considered in board composition. Boards today tend to be more independent, because companies aim for improved corporate governance mechanisms, higher accountability and transparency. From the agency perspective, non-executive independent directors reduce agency conflicts. The presence of outside non-executive independent directors may increase a board's overall effectiveness and performance. Resource dependence theory views outside directors as a critical link between the firm and its external resources in terms of the firm achieving its various objectives.

Non-executive directors can act as an effective monitoring mechanism for the board and, compared to internal executive directors, are more likely to protect the interests of shareholders (Volonte, 2015). Reiter and Rosenberg (2003) claim that independent directors can be highly valuable to the firms they serve when they are provided with all useful and timely information. Low representation of outside directors in boards can lead to an ineffective oversight over firm's decisions, and failure to monitor management's activities objectively (Lorsch, Andargachew & Pick, 2001).

Other argument is that independent directors are less effective due to their limited access to information. Independent directors, by their nature have less information for monitoring and have difficulties obtaining it, as management is reluctant to share important aspects of business information (Adams and Ferrira, 2007; Harris and Raviv, 2008).

Board Gender Diversity and Performance

Gender diversity is an important issue in corporate governance. For this reason, the Higgs Report (2003) stressed on the importance of

23

incorporating more women as board of directors, especially when there is little or no female representation. Different researchers found different relationship between gender diversity and firm performance. Based on different researches and different theories, there are positive, negative and no relationship between gender diversity and firm performance. For example, Taghizadeh and Saremi (2013) examined the impact of gender diversity on firm performance on Malaysian Public Listed Firms. The results of the study indicate that high percentage of female directors on board of directors increase ROE.

Moreover, Osei (2016) in her research found that women presence on board positively affects the profitability of the firms in Ghana. This is in contrast with the findings of research by Agyapong and Appiah (2015), which revealed that the percentage of women on board has no statistically significant relationship with firm's financial performance of non-financial listed firms in Ghana. Jung and Dobbin (2010) explored how women directors affect profits, stock performance, and institutional shareholding and found that board diversity has no effect on profits, but a negative effect on stock price. A research conducted by Verboom and Ranzijn (2004) revealed that there is a relationship between the number of women at the top management and bottom-line layer of a firm and firm performance.

In addition, Marinova et al. (2016) examined whether board gender diversity has a positive effect on firm performance, based on evidence from the Netherlands and Denmark. Their findings indicated that there is no effect of board gender diversity on firm performance. In the work of Gallego-Álvarez et al. (2010), diversity may lead to an improvement in monitoring management, due to greater boardroom independence and more complex and

exhaustive decision-making processes. However, at the same time as gender diversity increases creativity, more complexity in decision-making is generated, which will imply potential conflicts and a lower degree of cohesion. They contended that demand for gender diversity remains quite controversial.

Carter, Simkins and Simpson (2003) examine a sample of 637 US firms and find a positive relation between the fraction of women and minorities on the board of directors and firm value. Campbell and Minguez-Vera (2008) investigated the relationship between the gender diversity of the board and financial performance for a sample of companies from Spain. They found that board gender diversity has a positive effect on firm value as measured by Tobin's Q. Adams and Ferreira (2009) found a negative relationship between the proportion of women on the board and Tobin's Q in an analysis of US firms.

Smith and Verner (2006) find a negative relationship between gender diversity of the board and gross profits to sales for a sample of Danish firms but no statistically significant relationship between board gender diversity and several other accounting measures of financial performance. Rose (2007) does not find a significant relationship between board gender diversity and Tobin's Q for a different sample of Danish firms. From the above research works, there may be a positive, negative or no relationship between gender diversity and firm performance.

Board Size and Performance

There has been various research works globally on the relationship between board size and firm performance with different results. Bennedsen et

25

al (2004) studied the relationship between board size and performance of 500 Danish firms. Their study also supported a negative relationship between the two. They observed that board size below six has no effect on performance. It's viable for only large size board (more than six). Dwivedi & Jain (2005) conducted a study on 340 large, listed Indian firms for the period 1997- 2001. This study found a weak positive relationship between board size and performance of the firm.

Adams and Mehran (2005) accessed the relationship between banking firm's performance (represented by Tobin's Q) and board size in the US banking industry and found a negative relationship between board size and performance. Kyereboah-Coleman and Biekpe, (2006) identified that small board sizes enhances the performance of Micro Finance Institutions in Ghana. Sanda et al, (2003) found that firm performance is positively related to small, as opposed to large boards in Nigeria. Kajola (2008) also a study in Nigeria, observed that there is a strong positive relationship between board size and financial performance of listed companies.

Topak (2011) examined the relationship between the board size and the financial performance of the Turkish firms. The study was conducted for the period of 2004-2009 with a sample of 122 Turkish firms. The study employed panel data techniques to measure the relation between board size and firm performance. It concluded that there exists no relation between the board size and the firm performance. Kumar and Singh (2013) examined the effect of corporate board size on firm value for selected Indian companies. The findings suggested that there is a negative relationship of board size with firm value. Saibaba (2013) investigated the relationship between board size and financial

26

performance of Indian companies listed in BSE and the panel data regression results showed that firms with large board sizes have better valuation.

Kathuria and Dash (1999) examined the association between board size and corporate financial performance using data of 504 corporations belonging to 18 industries. The study related to the year 1994-95 and used return on assets as proxy for profitability. It was observed that size of the board played an important role in enhancing performance (profitability) of the company. However, Bhagat and Black (2002), found no evidence on the relationship between board size and performance. Zaheer (2013) suggested that, there are least chances for the dominancy of the company's management if the board size is large. The findings of the study conducted among 53 listed companies of different sectors on Karachi Stock Exchange from 2007 to 2011 showed that larger board size has positive effects on the level of corporate governance disclosure and performance.

Board Independence and Performance

Board independence is represented by a number of non-executive directors (directors who are not employees of the firm) to the total number of board members. The results on relationship between firm performance and board independence are mixed. Some studies observed a negative relationship while others observed positive or no relationship at all. Kyereboah-Coleman (2005) when studying nontraditional export firms in Ghana found that the percentage of outside directors does not affect performance. Bhagat and Black (2002) found no significant relationship between board composition and performance. Hermalin and Weisbach (1991) used a sample of 142 US based for a study of public limited companies and concluded that different

27

proportions of outside directors on the board had a negative effect on firm's market performance, as measured by Tobin's Q.

Zahra and Stanton (1998) completed a study on 100 randomly selected companies and their analysis revealed that the proportion of independent directors to non-independent directors had a significant negative relationship with the financial performance of firms. Yemack (1996) also showed that, the percentage of outside directors does not significantly affect firm performance. Coles, McWilliams and Sen (2001) suggest, through their work, that a greater proportion of non-executive directors improve the control and strategic decision-making processes of boards through better monitoring therefore affecting performance positively. Ritchie (2007) examined the impact of the presence of outsiders on firm value and accordingly identified a positive association between outside board members and corporate performance measured in terms of Tobins Q, return on equity (ROE) and return on asset (ROA).

Yun and Hyun-Han (2014), suggested that adding outside directors to the board may not achieve improvement in governance practices by itself, especially in jurisdictions where ownership is highly concentrated and the outside directors labour market may not be well developed. However, Rosenstein and Wyatt (1990) found a positive stock price reaction to the appointment of outside directors suggesting that outside directors provide expertise beyond monitoring service thus a higher proportion of outside directors has positive effect on performance of firms.

Other researchers such as (Hillman, 2005; Masulis, Wang & Xie, 2012; Awan 2012; Javed & Iqbal, 2006) reported a positive relationship

between the presence of non-executive directors and the performance of firms, as measured by ROA and ROE.

Conceptual Framework

Figure 1 shows the board composition variables (board size, board gender diversity and board independence) and control variables of the study and their effect on firm performance variables such as return on asset (ROA), return on equity (ROE) and stock market returns (SMR). The control variables in figure 1, firm size and leverage, are chosen following literature (Agyapong and Osei, 2015). Firm size is usually used as a control variable in analysis of financial performance since it is shown to be related to returns by Fama and French (1992). Leverage is also used as control variable as it describes a company's financial structure, and it measures the gearing and the long term risk implied by that structure (Watson, Shrives & Marston, 2002).

Prior studies have indicated that there has been no consensus on which firm performance measures are appropriate, (Dalton et al., 1998). Notwithstanding, previous studies evaluating the relationship between board size, board gender diversity, board independence and firm performance have usually used various firm performance measures. The study employs return on asset (ROA), return on equity (ROE) and stock market returns (SMR) as performance measure as they are the key variables to determine business performance and therefore used in a lot of corporate governance studies. (Darko et al., 2016; Ritchie, 2007; Bhagat & Black, 2002; Rosenstein and Wyatt, 1990)
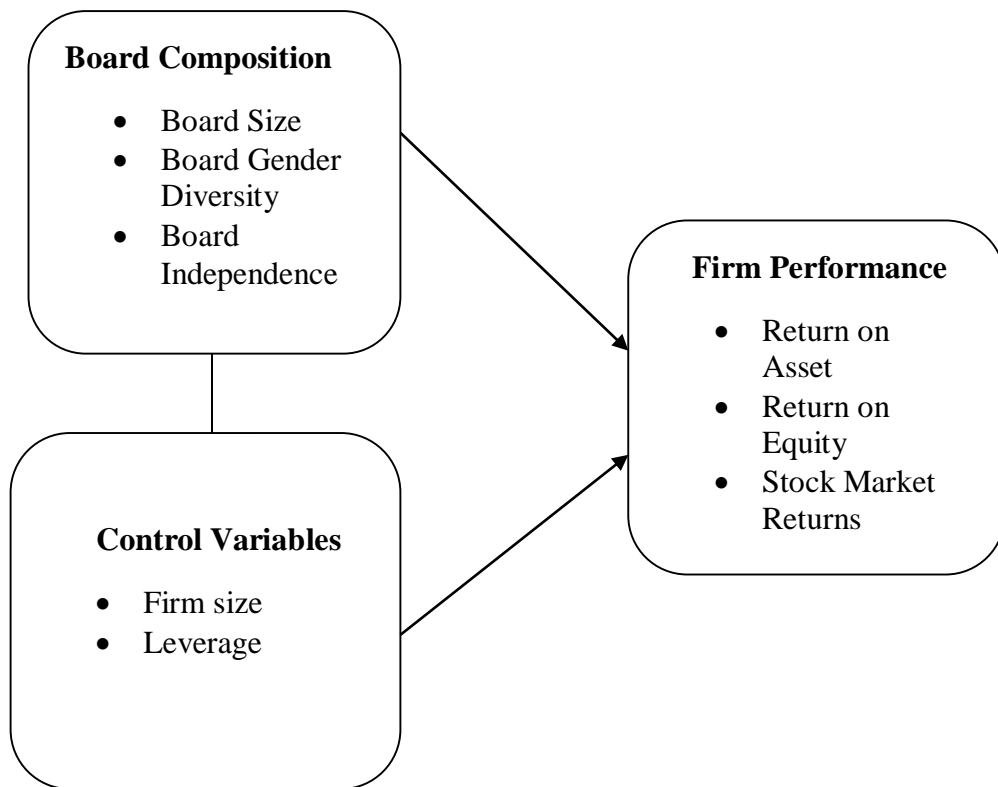
Figure 1: Conceptual Framework

Source: Author's Construct (2018)

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the methods and techniques that were used for the research This chapter covers discussions on the research design, study population and sampling, data sources and collection methods, description and measurement of variables as well as the statistical model for this research work.

Research Design

Considering the objectives of this study, a quantitative research paradigm is used to obtain the required data for the study. According to Hopkins (2008) quantitative research paradigm involves the use of numerical measures and helps quantify variables in order to determine the relationships that exist between them and the impact one variable has on the other. In this study it will help describe and determine the impact of board composition on firm performance using descriptive and inferential statistics.

There are several research designs that are used in corporate governance studies. This study employed the explanatory research design. This research design explains the extent and nature of cause-and-effect relationships between variables. Campbell, Moore and Shrives (2006), expressed the view that research in corporate governance pays greater attention to methodology in order to reduce subjectivity. To this end, some studies in corporate governance use explanatory design (Hennigs, Wiedmann, Behrens & Klarmann, 2014; Gray, Ryan, Hotchkiss & Crofton, 2010).

Explanatory research design was employed to identify the extent and nature of cause-and-effect relationships among board size, board gender diversity, board independence and firm performance. This design seeks to assess the impacts of specific changes on existing norms and various processes as well as focusing on analysis of the situation to explain the patterns of relationships between the variables of study (Cresswell, 2013).

Population

Listed firms on the Ghana Stock Exchange formed the population of the study. The total number of listed firms was thirty-seven (37) as at 31st December, 2017. Table 1 summarises the total number of firms listed on the Ghana Stock Exchange as at 31st December 2017 under the various sectors. A total of fourteen (14) firms fall under the financial listed firms while a total of twenty-three (23) are Non-financial listed firms.

Table 1: Summary of Listed Firms on the Ghana Stock Exchange by Sectors

Sector	Number of listed firms
Finance	11
Insurance	3
Information and communication technology	2
Manufacturing/food and beverages	14
Distribution	3
Mining	4
Total	37

Source: Ghana Stock Exchange (2017)

The study used a panel data for a period of ten (10) years spanning, 2008 to 2017. The year 2017 reflects the most current available data at the

time of the study. Also, the Ghanaian Code of best practices on corporate governance was introduced in 2003 by the Security and Exchange Commission Ghana (SECG) and the study starts from 2008, which is after five (5) years of the introduction of the code. It is therefore believed that selecting this study period will deepen the clarity of whether or not the corporate governance principle benefitted firms after its introduction. This 10-year period of study is long enough to enhance the achievement of the research objectives.

Sampling Procedure

The study employed the criterion-based sampling technique to select thirty (30) out of thirty-seven (37) listed firms. According to Branco and Rodrigues (2007), the methodologies employed for the sample and data collection are particularly relevant. The choice of sample employed in corporate governance studies usually has been based on some criteria, for example, the selection of large, medium and listed or unlisted companies. The study employed criterion-based sampling technique, because it was interested in firms with full data for the period in accordance with Palinkas, Horwitz, Green, Wisdom, Duan, and Hoagwood, (2013), assertion.

According to Palinkas et al. (2013), criterion sampling involves selecting cases that meet some predetermined criterion of importance and also cases that exceed or fall within a specified criterion. The under listed criteria were set to sample the companies listed on Ghana Stock Exchange. Any company that met these two conditions was selected to be part of the sample.

a. Listed companies from 2008 to 2017

b. Availability of annual reports from 2008 to 2017

In all, a total of thirty (30) companies comprising eight (8) financial and twenty-two (22) non- financial met the stated criteria and were selected for the study. One of the reasons to use listed companies is that they are required by laws and regulations from the Stock Exchange to meet mandatory requirement in the preparation of their annual report.

Data Source and Collection Procedure

To successfully execute the study, data is required on the variables of the study. The study relied on secondary sources of data. A secondary data is data that has been previously collected for some other work rather than the one at first hand but found useful by the researcher. Audited financial reports of listed firms and their stock prices published by Ghana Stock Exchange were the main secondary source of data for this study. The data was retrieved from the official website of Ghana Stock Exchange as well as the official website of the firms. The financial statement and the list of Board of Directors components in corporate financial reports formed the basis of this study. Annual reports are considered to be the most important and highly credible source of information on corporate activities and performance in various fields and are widely recognized by all shareholders and other stakeholders (Hennigs, 2014).

Audited financial reports are regarded as important documents in corporate activities due to the high credibility they lend to information reported within them, hence their use by a number of stakeholders as the sole source of certain information, and their widespread distribution (Unerman, 2000). The justifications given for the use of annual reports in corporate governance content analysis studies encompass the following factors as

34

expressed by Adams and Harte (1998). First, the acceptance of the social importance of the corporate annual report stresses its potential (rather than fact) to be influential. Secondly, corporate annual reports do capture actual content of companies' activities.

The focus on the corporate annual report is also consistent with previous corporate governance studies in Ghana, such as Kyereboah-Coleman and Biekpe (2006) and Agyapong and Appiah (2015). The corporate annual report is the main form of corporate communication and, particularly in the case of listed companies, is made widely available. Other arguments for focusing on annual report as suggested by Neimark (1992), is that annual reports can also be used in support of all documents produced as part of the regular reporting cycle of organizations.

This research therefore used content analysis of corporate reports as a method to examining the effect of some corporate governance elements on firm performance over the ten-year period.

Model Specification

The specific objectives of the study are to examine the effect of board size, board gender diversity and board independence on firm performance (measured by ROA, ROE and SMR). In order to test the study's hypotheses, the study employed a broad dataset on board size, board gender diversity, board independence and other corporate governance elements of listed firms. It further focused on firms with full data on their financial performance. Based on this criterion, the study was able to get full data on thirty (30) listed firms that aided the study to test its formulated research hypotheses.

The study employed models showing the relationship between the Dependent Variables: Profitability (Performance) which is represented by Return on Asset (ROA), Return on Equity (ROE) and Stock Market Returns (SMR) and Independent or Explanatory Variables such as Board Size, Gender Diversity and Board Independence. It also shows other variables that are not restricted by corporate governance mechanisms in affecting firm performance. They are known as Control Variables. They are added in the model in order to limit potential omitted variable bias. In this study, Firm size and leverage were used as control variables based on literature by Agyapong and Appiah (2015), Campbell and Vera (2008), Pudjiastuti and Mardiyah (2006) and Webb (2004).

Three equations for panel regression analysis of cross-sectional and time series data were used for the study based on the hypotheses. Equation one (1) presents the effect of board size, board gender diversity and board independence on return on asset (ROA) with the control variables. Equation two (2) presents the effect of board size, board gender diversity and board independence on return on equity (ROE) with the control variables while equation three(3) analyses the effect of board size, board gender diversity board independence on stock market returns (SMR) as shown below.

$$ROA_{it} = \beta_0 + \beta_1 (BSIZE)_{it} + \beta_2 (BGDIV)_{it} + \beta_3 (BIND)_{it} + \beta_4 (FSIZE)_{it} + \beta_5 (LEV)_{it} + \mathcal{E}_{it}$$

$$ROE_{it} = \beta_0 + \beta_1 (BSIZE)_{it} + \beta_2 (BGDIV)_{it} + \beta_3 (BIND)_{it} + \beta_4 (FSIZE)_{it} + \beta_5 (LEV)_{it} + \mathcal{E}_{it}$$

$SMR_{it} = \beta_0 + \beta_1 (BSIZE)_{it} + \beta_2 (BGDIV)_{it} + \beta_3 (BIND)_{it} + \beta_4 (FSIZE)_{it} + \beta_5 (LEV)_{it} + \mathcal{E}_{it}$

- ROA denotes Return on Assets

- BSIZE denotes Board Size

- BGDIV denotes Board Gender Diversity

- FSIZE denotes Firms Size

- LEV denotes Firms Leverage

- β is a vector of coefficients

- $\mathcal{E}$ represents the disturbance or error term (which refers to the other influences on performance, assumed to be well behaved).

- i represents listed firms

- t represents the time periods in years

A Priori Expectation of the Variables in the Model

Table 2 presents a priori expectations of the study's variables of interest in the model. The study's variables of interest are board size, board gender diversity, board independence and the control variables.

Table 2: A Priori expected Sign of the Variables

Variables	Expected Sign
Board size	+
Board Gender diversity	+
Board independence	+
Firm size	+
Leverage	+

Source: Author's construct (2018)

Model Estimation Technique

Panel data can be analyzed by Pooled Ordinary Least Square (OLS) model, the fixed-effects model and the random-effects model (McManus, 2011).   According to Wooldridge (2010), pooled OLS is employed when different samples of individuals/countries/states/cities/etc. for each year/month/period of the panel data are observed and fixed effects or random effects regression models are employed when the same sample is observed for each year/month/period. This study therefore adopts the fixed effect and the random effect estimators since the same sample of firms is observed for each year.

Random-effects and fixed-effects models account for the presence of individual-specific effects in that they separate the error term into one time-invariant and individual-specific component, which changes within and between entities. Fixed-effects model allows the error term to be correlated with the independent variables thus solving the endogeneity problem. Unlike fixed-effects model, the random-effects model postulates that the independent variables are strictly uncorrelated with the error term, in the sense that the model takes advantage of both cross-sectional and within-unit variations and it assumes that the effects are equal (Yaffee, 2003).

The choice of whether to rely on fixed or random effects is done by conducting a Hausman Specification Test. The Hausman specification test is a test performed on a panel data prior to running a panel data regression to determine whether the researcher should choose the fixed effect or the random effect model estimation. As a rule of thumb, if performed and the probability value is less than 0.05 (i.e. $p < 0.05$), then there is a correlation between the

error terms and explanatory variables and the fixed effect is adopted in the model estimation, otherwise, the random effect is more efficient estimator of the parameters under investigation (Greene, 2012). To decide between these two estimators in this study, Hausman test would be used.

Definition and Measurement of Variables

Quantitative data seek to give a precise and objective report about a phenomenon; and as such the need to measure the attributes of the phenomenon is ever present in quantitative studies (Leedy & Ormrod, 2010). As mentioned in the study design, it is important to specify how the variables of the models; board size, board gender diversity, board independence, firm size, leverage and firm performance would be measured. Measurement of the variables is explained in Table 3.

Table 3: Definition and Measurement of the Variables

Variable	Definition	Measurement
BSIZE	Board size	The log of total number of directors on the board at the end of a financial year as indicated in the annual report (Darko et al., 2016)
BGDIV	Board Gender Diversity	Measured as the proportion of women on board to the total number of board members (Agyapong & Appiah, 2015)
BIND	Board independence	Proportion of non-executive directors to the total number of board members (Abor & Bieke, 2007)
FSIZE	Firm size	Firm size was measured as log of total assets for the respective years as used by (Echave & Bhati, 2010).
LEV	Leverage	Financial leverage was measured as the ratio of the company's total liabilities to the total assets for the respective years (Watson, Shrives & Marston, 2002)
ROA	Returns on Asset	Net profit before tax divided by total assets (Osei 2016; Ross et al, 2006).
ROE	Return on equity	Net profit before tax divided by total Equity (Ritchie, 2007)
SMR	Stock Market Returns	Share price appreciation for the year. Price at the end of the year minus price at the beginning of the year divided by price at the beginning of the year. (Rosenstein & Wyatt 1990)

Source: Author's construct (2018)

Data Processing and Analysis Procedure

The study employed both descriptive and inferential analysis for the quantitative data. Data analysis refers to the process of deriving meaning from the data that had been collected in a study. According to Creswell (2014), the ultimate goal of analyzing data is to treat the evidence fairly, to produce compelling analytical conclusions and to rule out alternative interpretations. The data gathered for the study were statistically analyzed using Statistical software package, E-views 9.

The descriptive statistics is used to describe the significant features of the variables using mean, maximum, minimum and standard deviations. The inferential statistics; Pearson correlation is used to determine the correlation among the independent and the control variables and regression analysis is used to examine the level of impact of independent variables on the dependent variables.

Chapter Summary

The chapter focused on the research method and design. It described the data and research methodology. In this regard, the data, its sources, the sample selection procedure and the model specification as well as the estimation technique used in this study were described.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The chapter provides the results and discussion of the data gathered in connection with the specific objectives of the study. The chapter presents the descriptive statistics and the correlation matrix of the study variables. It also evaluates the effects of board size, board gender diversity and board independence on return on asset (ROA), return on equity (ROE) and stock market returns (SMR) of financial listed firms in Ghana. This chapter further evaluates the effects of board size, board gender diversity and board independence on ROA, ROE and SMR of non-financial listed firms in Ghana.

Descriptive Statistics of Study Variables

Descriptive statistics utilizes statistical, numerical and graphical methods to look for patterns in a data set. It usually summarizes the information in a data set by revealing the average indicators of the variables used in the study and present that information in a convenient way (Gujarati, 2003). The descriptive statistics of the variables of interest are presented in Table 4 and Table 5. Table 4 presents the descriptive statistics of the variables; board size, board gender diversity, board independence, firm size, leverage, return on asset (ROA), return on equity(ROE) and stock market returns(SMR) for financial listed firms while Table 5 presents the descriptive statistics of the above variables for non-financial listed firms. The mean, median, minimum, maximum, skewness, kurtosis and standard deviation of each variable and the number of observations are highlighted.

Descriptive statistics of the study variables of financial listed firms

The descriptive statistics in Table 4 shows that there were 80 observations. On the average, the size of financial listed firms recorded a mean figure of GH¢ 2.33billion with a minimum value of GH¢ 59.986million and maximum value of GH¢22.4billion. The size of financial listed firms was not normally distributed with skewness value of 4.00 and kurtosis value of 21.45. On average, board members of financial listed firms on the Ghana Stock Exchange for the period were approximately 10 with a minimum of 7 board members and maximum of 14 board members. The data on board size was normally distributed with skewness value of 0.19 and kurtosis figure of 2.49.

The data on board gender diversity recorded an average mean figure of 0.16. This means that on the average only 16% of the board members of financial listed firms in Ghana are females. It also shows a minimum of 0.00 and a maximum of 0.44. This means that while at least a firm has 44% female on the board another firm does not have a female on its board at all. Board gender diversity was not normally distributed with skewness figure of 0.71 and kurtosis figure of 3.32. The mean value of the board independence was approximately 0.76 with a minimum value of 0.57 and maximum value of 0.91. This means that on average financial listed firms in Ghana have 76% non-executive board members with highest of 91% and lowest of 57%. This adheres to the Ghana Stock Exchange requirement of at least 50% independent board of directors. Board independence was normally distributed with skewness value of -0.24 and kurtosis value of 1.77.

The mean value of the financial firms' leverage on the stock exchange was approximately 0.78 with a minimum value of 0.50 and maximum value of

43

0.93. Leverage was normally distributed with skewness value of -0.86 and kurtosis value of 2.36. The return on asset (ROA) which is accounting based measure of performance recorded a mean value of approximately 0.048 (4.8%) with a minimum value of -0.06 and maximum value of 0.15. This is an indication that financial firms on the exchange were on the average earning positive returns on their asset. Financial listed firms' profits from their operations in terms of ROA was not normally distributed with skewness value of 0.02 and kurtosis value of 4.03

Another accounting measure of performance, return on equity (ROE) recorded a mean value of approximately 0.25 (25%) with a minimum value of -0.43 and maximum value of 0.68. This indicates that financial firms on the exchange were on the average earning positive returns on their equity from their operations. ROE was not normally distributed with skewness value of -0.4 and kurtosis value of 3.6. Stock market returns (SMR) is a market-based measurement of firm performance which measures the share price appreciation of the firms at the stock market. The mean value of SMR obtained was approximately 0.55 (55%) with a minimum value of -0.02 (-2%) and maximum value of 1.85 (185%). This means that on the average financial listed firms were earning positive returns from the stock market. It also indicates that at least a firm made a stock return of more than 100% within the period. SMR was normally distributed with skewness value of 0.78 and kurtosis value of 3.04

The minimal deviations of the variables from their means as indicated by the standard deviation give indications of fluctuations of these variables

over the study period. Data on variables which were not normally distributed were all log transformed before performing the regression analysis.

Descriptive statistics of study variables of non-financial listed firms

The descriptive statistics in Table 5 shows that there were 220 observations. The size of non-financial listed firms recorded a mean figure of GH¢ 2.98 billion with a minimum value of GH¢ 91,956 and maximum value of GH¢86.9billion. The size of non-financial listed firms was not normally distributed with skewness value of 4.84 and kurtosis value of 25.54. On average, board members of non-financial listed firms in Ghana for the period were approximately 8 with a minimum of 3 board members and maximum of 13 board members. The data on board size was normally distributed with skewness value of approximately 0.09 and kurtosis figure of 2.40.

The mean figure for the data on board gender diversity shows 0.14. This means that on the average only 14% of the board members of non-financial firms on Ghana Stock Exchange are females. It also depicts a minimum of 0.00 (0%) and a maximum of 0.60 (60%) female board members. Board gender diversity was not normally distributed with skewness figure of 1.05 and kurtosis figure of 3.85. The mean value of the board independence was approximately 0.84 with a minimum value of 0.60 and maximum value of 0.92. This means that on average non-financial firms on Ghana stock exchange have 84% non-executive board members with a minimum of 60% and maximum of 92% non-executive board members. Board independence was not normally distributed with skewness value of approximately -1.23 and kurtosis value of 4.60

45

The data on leverage of non-financial firms on the Ghana Stock Exchange shows a mean value of approximately 1.22 with a minimum value of 0.05 and maximum value of 30.62. The firms leverage was not normally distributed with skewness value of 6.47 and kurtosis value of 44.94. The return on asset (ROA) which is accounting based measure of performance recorded a mean value of approximately 0.01 with a minimum value of -4.19 and maximum value of 5.71. This indicates that on average non-financial listed firms in Ghana earn positive returns on their asset. ROA was not normally distributed with skewness value of 3.40 and kurtosis value of 82.09.

Return on equity (ROE) recorded a mean value of -0.03 with a minimum value of -8.07 and maximum value of 11.19. This depicts that non-financial firms on the Ghana Stock Exchange were on the average earning negative returns on their equity from their operations. ROE was not normally distributed with skewness value of 4.16 and kurtosis value of 100.58. Stock market returns (SMR) as a market-based profitability measure of the performance of listed firms recorded a mean value of 0.37 with a minimum value of -0.18 and maximum value of 1.94 this shows that on the average non-financial listed firms were earning positive returns from the stock market. SMR was not normally distributed with skewness value of approximately 1.19 and kurtosis value of 3.96

The standard deviations which explain the minimal deviations of the variables from their means give indications of fluctuations of these variables over the study period. Data on variables which were not normally distributed were all log transformed before performing the regression analysis.

Table 4: Descriptive Statistics of Study Variables of Financial Listed Firms

	Board Gender Diversity	Board Independence	Board Size	Firm Size	Leverage	Return on Asset	Return on Equity	Stock Market Returns
				(000)				
Mean	0.164098	0.755915	9.512500	2330000	0.776410	0.048136	0.254998	0.547676
Median	0.133929	0.763889	9.000000	1370000	0.827526	0.047193	0.248693	0.452579
Maximum	0.444444	0.909091	14.00000	22400000	0.927556	0.152456	0.680289	1.846154
Minimum	0.000000	0.571429	7.000000	59986	0.501693	-0.063925	-0.432133	-0.024490
Std. Dev.	0.092893	0.107381	1.591065	3590000	0.127309	0.039375	0.205305	0.422880
Skewness	0.709587	-0.243884	0.185802	4.008993	-0.864220	0.021445	-0.418578	0.779093
Kurtosis	3.319437	1.770586	2.488061	21.44879	2.358998	4.028017	3.626016	3.044612
Jarque-Bera	7.053641	5.831255	1.333905	1348.820	11.32797	3.528862	3.642423	8.125560
Probability	0.029398	0.054170	0.513270	0.000000	0.003469	0.171284	0.161830	0.017201
Observations	80	80	80	80	80	80	80	80

Source: Field data (2018)

Table 5: Descriptive Statistics of Study Variables of Non-financial Listed Firms

	Board Gender Diversity	Board Independence	Board Size	Firm Size	Leverage	Return on Asset	Return on Equity	Stock Market Returns
				(000)				
Mean	0.140468	0.835201	7.836364	2980000	1.218974	0.008207	-0.033829	0.370699
Median	0.125000	0.857143	8.000000	38393.414	0.659349	0.026764	0.137375	0.237834
Maximum	0.600000	0.923077	13.00000	86900000	30.61851	5.712588	11.19087	1.942308
Minimum	0.000000	0.600000	3.000000	91.956	-2.884165	-4.190113	-8.069237	-0.181818
Std. Dev.	0.137127	0.064128	2.291646	13700000	3.698787	0.526546	3.775780	0.432399
Skewness	1.053151	-1.226048	0.087298	4.837384	6.469107	3.402946	4.165475	1.190216
Kurtosis	3.850244	4.602930	2.397890	25.53671	44.94125	82.09107	100.5825	3.955881
Jarque-Bera	47.29471	78.66978	3.602685	5513.790	17659.27	57765.75	87924.43	60.31819
Probability	0.000000	0.000000	0.165077	0.000000	0.000000	0.000000	0.000000	0.000000
Observations	220	220	220	220	220	220	220	220

Source: Field data (2018)

Multicollinearity Test

Multicollinearity test is done to determine whether the variables in the regression analysis are correlated. Multicollinearity among the variables affect the regression result, therefore the researcher tested this before the regression as indicated in Table 6 and Table 7.

Table 6 presents the Pearson correlations matrix among the independent and control variables for financial listed firms. The results of the Pearson correlation analysis indicate that the highest correlation coefficient between independent variables is 0.30 for board size and board independence which shows weak correlations among the variables. This means there is no multicollinearity among the variables. Farrar and Glauber (2012) suggest that correlation between independent variables should not be considered as harmful until the correlation coefficients reach 0.8 or 0.9.

Table 7 presents the Pearson correlations matrix among the independent and control variables for non-financial listed firms. The result from this table indicates that the highest correlation coefficient between variables is 0.24 for board size and firm size. This also depicts weak correlations among the variables indicating that there is no multicollinearity among the variables.

49

Table 6: Correlation Matrix for Independent and Control Variables for Financial firms

	Board Gender Diversity	Board Independence	Board Size	Leverage	Firm Size
Board Gender Diversity	1				
Board Independence	-0.1622	1			
Board Size	0.1817	0.3034	1		
Leverage	0.2381	0.0002	-0.1928	1	
Firm Size	0.2912	0.1209	0.2435	0.1791	1

Source: Field data (2018)

Table 7: Correlation Matrix for Independent and Control Variables for Non-financial firms

	Board Gender Diversity	Board Independence	Board Size	Leverage	Firm Size
Board Gender Diversity	1				
Board Independence	0.1827	1			
Board Size	0.0993	0.1315	1		
Leverage	0.1728	-0.1167	-0.1790	1	
Firm Size	-0.0799	0.1936	0.2405	-0.1889	1

Source: Field data (2018)

Effect of Board Size on Performance of Listed Firms

The first research objective seeks to examine the impact of board size on performance of listed firms in both financial and non-financial sectors with two hypotheses; H1a and H1b.

H_{1a}: There is no significant effect of board size on performance of financial listed firms

Tables 8, 9 and 10 illustrate the regression analysis of board size against firm performance of financial listed firms measured by return on asset (ROA), return on equity (ROE) and stock market returns (SMR) respectively

The results in Table 8 indicate that board size has a significant positive effect on ROA showing a p-value of 0.0905. This is statistically significant at 10% significant level. This means that an increase in the number of directors on the board increases performance measured by return on asset (ROA) of financial listed firms. For robustness purpose, a further test on board size and firm performance was done using return on equity (ROE) as a measure of performance. The result is shown in Table 9. This result also reveals that board size has a significant positive effect on ROE with a p-value of 0.0923 being statistically significant at 10% significant level. It indicates that the higher the board size the better the performance of financial listed firms measured by ROE.

Putting market performance of the listed firms into consideration, Table 10 depicts that board size has no significant impact on market performance. The p-value of 0.2920 from the regression result in Table 10 indicates that board size has no effect on stock market returns (SMR). This means that the number of board members has no significant influence on the

51

share price appreciation at the stock market. The study therefore rejects the null hypothesis, H1a which states that there is no significant effect of board size on performance of financial listed firms. Board size therefore has significant positive influence on profits from their operations (ROA and ROE) but has no effect on share price appreciation on the stock market. This suggests that more members bring diverse views to make better decisions which improve on their operations. Thus relatively large boards have a range of expertise to help make better decisions and monitor job effectively.

The result conforms to agency theory which places the size of the board as a critical component of corporate board in ensuring effective monitoring and resolving agency conflict to improve firms' performance. The theory postulates that when the size increases, the level of control and monitoring over the activities of the management is intensified to resolve agency conflict. The result is consistent to the findings of Zaheer (2013) which disclosed that larger board size has positive effect on performance. Adams and Mehran (2002) also found a positive effect of board size on performance of US bank firms.

The result is in contrast to the study by Kumar and Singh (2013) found that which revealed that board size has negative effect on value of selected Indian companies. Kyereboah-Coleman and Biekpe (2006) also revealed that small board sizes rather enhances the performance of Micro Finance Institutions in Ghana. Hermalin and Weishach (2003) found a negative relationship between board size and performance using return on asset and return on equity as the measure of performance.

H[1b]: There is no significant effect of board size on performance of non-financial listed firms

Regression analysis of board size against firm performance of non-financial listed firms measured by return on asset (ROA), return on equity (ROE) and stock market returns (SMR) respectively are depicted in Tables 11, 12 and 13.

Table 11 reveals that board size has no significant effect on ROA showing a p-value of 0.5669. This means that the number of directors on the board does not influence the profitability of a non-financial listed firm measured by its return on asset (ROA). Board size and firm performance was also analyzed using return on equity (ROE) as a measure of performance. This result also reveals that board size has no significant effect on return on equity (ROE) with p-value of 0.5863 as shown in Table 12. Additional test shown in Table 13 indicates that board size has no significant relationship with market performance measured by stock market returns (SMR) with p-value of 0.3166. This means the number of board members has no significant impact on the stock market performance. The study therefore fails to reject the null hypothesis H1b which states that there is no significant effect of board size on performance of non-financial listed firms.

The result is in line with the findings of Darko et al. (2016) who concluded that board size has significant negative impact on listed firms in Ghana. Topak (2011) examined the relationship between the board size and the financial performance of the Turkish firms and concluded that there exists no relationship between the board size and the firm performance. This result is however contrary to the expectation of agency theory and some existing

53

literature such as Isshaq et al. (2009) which indicated a positive significant effect of board size on share price of listed firms in Ghana. Bennedsen et al (2004) also supported a negative relationship between board size and performances after studying the relationship between board size and performance of 500 Danish firms.

Effect of Board Gender Diversity on Performance of Listed Firms

The second objective of this study is to ascertain the impact of board gender diversity on performance of listed firms in both financial and non-financial sectors with hypotheses, H2a and H2b.

H_{2a}: There is no significant effect of board gender diversity on performance of financial listed firms

The results of this objective are shown in Tables 8, 9 and 10. Table 8 indicates that there is no significant effect of board gender diversity on performance measured by return on asset (ROA). The p-value from the regression result is 0.1205. This means that the proportion of female directors on board has no significant influence on the ROA of the financial listed firms. Furthermore, board gender diversity has no significant impact on performance measured by return on equity (ROE) as indicated in Table 9. The result in this table shows a p-value of 0.1295 which is not statistically significant. Thus the number of female directors on board of a financial listed firm does not affect its performance in terms of ROE.

In addition, Table 10 depicts the effect of board gender diversity on market performance using stock market returns (SMR) as a measure of performance. The result shows that board gender diversity does not have any significant effect on SMR. The result from the regression gives a p-value of

54

0.4129 which is also not significant. This indicates that the proportion of female directors on the boards has no impact on the stock market performance of a financial listed firm. Based on these results, the study fails to reject hypothesis, H2a which states that there is no effect of board gender diversity on performance of financial listed firms. This implies that board gender diversity does not have impact on the performance of financial listed firms in Ghana.

The result conforms to the findings of Adams and Ferreira (2009) which found no relationship between the proportion of women on the board and performance in an analysis of US firms. Jung and Dobbin (2010) explored how women directors affect profits and also found that board diversity has no effect on profits.

This result is in contrast to feminist conflicts theory which argues for the high inclusion of women in most important spheres of modern social, political,- economic and corporate life for improvement in those spheres of life. It is also contrary to some studies such as Osei (2016) which found that women presence on board positively affects the profitability of the firms in Ghana. Also, Taghizadeh and Saremi (2013) concluded that high percentage of female directors on board increase ROE after examining the impact of gender diversity on performance of Malaysian Public Listed Firms.

H2b: There is no significant effect of board gender diversity on performance of non-financial listed firms

The results of this hypothesis are shown in Table 11, 12 and 13. As shown in Table 11, board gender diversity has no significant effect on performance measured by return on asset (ROA). The p-value from the

regression result is 0.4750 which means that the proportion of female directors on board has no significant impact on the ROA of non-financial listed firms. Also, board gender diversity has no significant impact on performance measured by return on equity (ROE) as indicated in Table 12. The result in this table shows a p-value of 0.5037 which is not statistically significant. Thus the number of female directors on board of a non-financial listed firm does not affect its performance in terms of ROE.

Using stock market returns (SMR) as a measure of performance, the result shows that board gender diversity has no significant effect on market performance as shown in Table 13. The result from the regression gives a p-value of 0.1784 which is also not significant. This means that the proportion of female directors on the board has no impact on the stock market performance of a non-financial listed firm. Based on the above results, the study fails to reject hypothesis, H2b which states that there is no effect of board gender diversity on performance of non-financial listed firms. This implies that an increase or decrease in proportion of female directors on the board does not affect the performance of non-financial listed firms in Ghana.

The result conforms to the findings of Agyapong and Appiah (2015) which revealed that the percentage of women on board has no statistically significant effect on performance of non-financial listed firms in Ghana. Also, Marinova, plantenga and Remery (2016)) explored how women directors on board affect profits and found that board diversity has no effect on profits.

This result is in contrast to feminist conflict theory and some studies including Minguez-Vera (2008) which revealed that board gender diversity has a positive effect on firm value as measured by Tobin's Q. Verboom and

56

Ranzijn (2004) revealed that there is a positive relationship between the number of women at the top management and firm performance.

Effect of Board Independence on Performance of Listed Firms

The final objective of this study is to ascertain the impact of board independence on performance of listed firms in both financial and non-financial sectors. Hypotheses, H3a and H3b were tested under this objective.

H_{3a}: There is no significant effect of board independence on performance of financial listed firms

The results of this objective are also indicated in Tables 8, 9 and10. Table 8 shows that there is a significant effect of board independence on firm performance measured by return on asset (ROA). The regression result gives a p-value of 0.0076 which is statistically significant at 1% significant level. It has a significant positive impact on the ROA. This reveals that an increase in proportion of non-executive board of directors brings a better ROA to a financial listed firm. Effect of board independence on performance was also determined using return on equity (ROE) as a measure of performance to confirm the earlier result. This result is indicated in Table 9 and it shows a p-value of 0.0032 which is statistically significant at 1% significant level. It shows that board independence has a significant positive impact on ROE. This means higher proportion of non-executive board members of a financial listed firm increases its ROE.

In addition, Table 10 depicts the effect of board independence on market performance using stock market returns (SMR) as a measure of performance. The result shows that board independence does not have any significant effect on SMR. The regression result shows a p-value of 0.4555.

57

This indicates that the proportion of non-executive directors on the board of a financial listed firm has no impact on its stock market performance. Following the regression results discussed, the study therefore rejects hypothesis, H3a which states that there is no effect of board independence on performance of financial listed firms. The results depict that board independence has a significant positive effect on the operational or accounting profits (ROA and ROE) of financial listed firms in Ghana but has no impact on the share price appreciation (SMR) at the stock market. The results suggest that high representation of outside directors in boards can lead to an effective oversight on firm's decisions and objective monitoring of executive directors' and management's activities.

The result conforms to the expectation of resource dependency theory which indicates that the presence of non-executive directors could influence the provision of essential resources from outside the organization. Increasing outside directors links the organization to its external environment and secures critical resources.   Non-executive directors can act as an effective monitoring mechanism for the board and, compared to internal executive directors, are more likely to protect the interests of shareholders (Volonte, 2015). The result is in conformity with the result of Abor and Bieke (2007) who found positive effect of board independence on performance of listed firms in Ghana. Ritchie (2007) examined the impact of the presence of outside directors on firm value and accordingly identified a positive association between outside board members and corporate performance using return on equity (ROE) and return on asset (ROA) as the accounting measure of performance.

58

The result is in contrast with Kyereboah-Coleman and Bieke (2006) who found significant negative relationship between board independence and performance.

H3b: There is no significant effect of board independence on performance of non-financial listed firms

The results of this objective are also indicated in Tables 11, 12 and13. Table 11 shows that there is a significant positive effect of board independence on firm performance measured by return on asset (ROA). The regression result gives a p-value of 0.0411 which is statistically significant at 5% significant level. This result indicates that the proportion of non-executive board of directors has a significant positive impact on the ROA of non-financial listed firms. This means that the higher the independence of a board the better the performance. Effect of board independence on performance was also determined using return on equity (ROE) as a measure of performance to confirm the earlier result. This result is indicated in Table 12 and it shows a p-value of 0.0732 which is statistically significant at 10% significant level. It shows a significant positive relationship. Therefore a high proportion of non-executive board members of a non-financial listed firm increases its ROE.

In addition, Table 13 depicts the effect of board independence on market performance using stock market returns (SMR) as a measure of performance. The result shows that board independence does not have any significant effect on SMR. The result shows a p-value of 0.8891 indicating that the proportion of non-executive directors on the board of a non-financial listed firm has no impact on its stock market performance. Following the regression results discussed, the study therefore rejects hypothesis, H3b which

59

states that there is no effect of board independence on performance of non-financial listed firms. This implies that board independence has a significant positive effect on the accounting performance (ROA and ROE) of non-financial listed firms in Ghana but has no significant effect on the market performance (SMR). This result also confirms that the representation of outside directors in boards can lead to an effective oversight on firm's decisions and objective monitoring of management's activities.

The result conforms to the expectation of resource dependency theory which explains that the presence of non-executive directors could influence the provision of vital resources from outside the organization The result is also consistent with the results of Hillman, (2005) and Awan (2012) reporting positive relationships between the presence of non-executive directors and the performance of firms as measured by ROA and ROE.

The result is in contrast with Kyereboah-Coleman (2005) when studying nontraditional export firms in Ghana. It was revealed that the percentage of outside directors does not affect performance. Bhagat & Black (2002) found no significant relationship between board independence and performance.

Explanation of the Control Variables of Financial Listed Firms

The control variables of the study are firm size and leverage. Table 8 shows that firm size has no significant effect on performance of the financial listed firms measured by return on asset (ROA). The regression result gives a p-value of 0.3331. This reveals that the value of the financial firm's asset has no significant influence on the ROA. Firm size also has no effect on return on equity (ROE) as indicated in Table 9, showing a p-value of 0.4678. Thus the

value of asset of a firm has no impact on its performance in terms of ROE. From Table 10, firm size has a significant positive effect on stock market returns (SMR) with p-value of 0.0376. This is an indication that the higher the value of the total asset of a financial listed firm the better the performance on the stock market

This conforms to the findings of Topak (2011) who revealed that firm size has no significant influence on performance measured by ROA and ROE but contrary to Abor and Bieke (2007) who found that firm size has a significant negative influence on accounting performance.

In Table 8, Leverage has a significant negative effect on ROA with p-value of 0.0669. It shows a significant negative relationship between leverage and ROA. This means that an increase in financial listed firm's debt to asset ratio leads to a worse performance measured by ROA. Table 9 also reveals that leverage has significant effect on ROE with p-value of 0.0180. It shows a significant positive relationship between leverage and ROE. This means that an increase in leverage of a financial listed firm in Ghana causes an increase in its ROE. Leverage however has no significant effect on SMR as indicated in Table 10. The regression result shows a p-value of 0.2488 which is not significant. This means a financial firm's leverage has no significant relationship with its market performance. This concludes that leverage has effect on accounting performance but has no effect on the market performance of financial listed firms in Ghana.

This result is consistent with Abor and Bieke. (2007) but contrary to the findings of Kyereboah-Coleman and Bieke (2006) who used leverage as a control variable.

61

Explanation of the Control Variables of Non-financial Listed Firms

Firm size and leverage are the control variables. Table 11 shows that firm size has no significant effect on performance of the non-financial listed firms measured by return on asset (ROA). The result shows a p-value of 0.2586. Firm size also has no effect on return on equity (ROE) as indicated in Table 12 showing a p value of 0.5238. Thus the value of asset of a non-financial listed firm has no impact on its performance in terms of ROE. From Table 13, firm size has a significant positive effect on stock market returns (SMR) with p-value of 0.0182. This means an increase in firm size increases stock price of a listed firm in the financial sector in Ghana. This agrees with the findings of Topak (2011) who revealed that firm size has no significant influence on performance measured by ROA and ROE. It is however in contrast with Agyapong and Appiah (2015) who revealed that firm size has no influence on market performance represented by Tobin's Q.

In Table 11, leverage has a significant negative effect on ROA with a p-value of 0.0205. This means that an increase in leverage leads to a decrease in ROA of a non-financial listed firm. Table 12 shows that leverage has no significant effect on ROE with p-value of 0.1536. This means that a change in leverage of a firm does not affect its ROE. Leverage has no significant effect on SMR as indicated in Table 13. The regression result shows a p-value of 0.1944 which is not significant. This means a non-financial firm's leverage has no relationship with its market performance.

This result is consistent with Abor and Bieke. (2007) but contrary to the findings of Kyereboah-Coleman and Bieke (2006) who used leverage as a control variable.

Table 8: Regression of Board Size, Board Gender Diversity and Board Independence on Return on Assets (ROA) for Financial Listed Firms

Dependent Variable: ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Board Size	3.474526	2.021472	1.718810	0.0905
Gender Diversity	-0.313392	0.199139	-1.573738	0.1205
Board Independence	2.821873	1.023183	2.757934	0.0076
Firm Size	0.225170	0.230892	0.975218	0.3331
Leverage	-1.322135	0.709359	-1.863844	0.0669
Constant	-10.30789	2.452297	-4.203362	0.0001
R-squared	0.162948	Mean dependent var		-1.685704
Adjusted R-squared	0.097553	S.D. dependent var		0.626589
S.E. of regression	0.551197	Sum squared resid		19.44433
F-statistic	2.491762	Durbin-Watson stat		1.259042
Prob(F-statistic)	0.040004			

Hausman Test

Chi-Sq(5) = 3.9198   Prob<Chi-Sq = 0.5610

Significant level at 5%   Random Effects regression

Source: Field data (2018)

Table 9: Regression of Board Size, Board Gender Diversity and Board Independence on Return on Equity (ROE) for Financial Listed Firms

Dependent Variable: ROE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Board Size	3.216022	1.957757	1.642708	0.0923
Gender diversity	-0.293735	0.191241	-1.535941	0.1295
Board Independence	3.210909	1.048740	3.061681	0.0032
Firm Size	0.161390	0.220974	0.730356	0.4678
Leverage	1.668331	0.686984	2.428485	0.0180
Constant	-7.115231	2.349309	-3.028649	0.0035
R-squared	0.322704	Mean dependent var		-0.708619
Adjusted R-squared	0.269790	S.D. dependent var		0.631650
S.E. of regression	0.518601	Sum squared resid		17.21260
F-statistic	6.098678	Durbin-Watson stat		1.399323
Prob(F-statistic)	0.000112			

Hausman Test

Chi-Sq(5) = 4.8163   Prob<Chi-Sq = 0.4387

Significant level at 5%   Random Effects regression

Source: Field data (2018)

Table 10: Regression of Board Size, Board Gender Diversity and Board independence on Stock Market Returns (SMR) for Financial Listed Firms

Dependent Variable: SMR

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Board Size	-4.066647	3.827146	-1.062579	0. 2920
Gender Diversity	-0.292093	0.354380	-0.824237	0.4129
Board Independence	1.821382	2.425648	0.750885	0.4555
Firm Size	0.850247	0.400373	2.123638	0.0376
Leverage	-1.518904	1.305119	-1.163806	0.2488
Constant	-5.047778	4.795601	-1.052585	0.2965
R-squared	0.077718	Mean dependent var		-0.309613
Adjusted R-squared	0.005665	S.D. dependent var		0.880200
S.E. of regression	0.878394	Sum squared resid		49.38083
F-statistic	1.078620	Durbin-Watson stat		1.388259
Prob(F-statistic)	0.380681			

Hausman Test

Chi-Sq(5) = 3.7203   Prob<Chi-Sq = 0.5904

Significant level at 5%   Random Effects regression

Source: Field data (2018)

Table 11: Regression of Board Size, Board Gender Diversity and Board Independence on Return on Assets (ROA) for Non-Financial Listed Firms

Dependent Variable: ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Board Size	0.998961	1.737559	0.574922	0.5669
Gender Diversity	-0.199418	0.277924	-0.717529	0.4750
Board Independence	0.681911	2.855010	0.238847	0.0411
Firm Size	-0.209377	0.180298	-1.161286	0.2488
Leverage	-0.514625	0.217983	-2.360854	0.0205
Constant	-2.641689	1.627196	-1.623461	0.1082
R-squared	0.085836	Mean dependent var		1.391659
Adjusted R-squared	0.032062	S.D. dependent var		0.960413
S.E. of regression	0.863163	Sum squared resid		63.32923
F-statistic	1.596233	Durbin-Watson stat		1.277874
Prob(F-statistic)	0.169904			

Hausman Test

Chi-Sq(5) = 4.2959   Prob<Chi-Sq = 0.5076

Significant level at 5%   Random Effects regression

Source: Field data (2018)

Table 12: Regression of Board Size, Board Gender Diversity and Board Independence on Return on Equity (ROE) for Non-financial Listed Firms

Dependent Variable: ROE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Board Size	0.944824	1.730519	0.545977	0.5863
Board Gender diversity	0.185147	0.275875	0.671128	0.5037
Board Independence	0.909239	2.185658	0.416003	0.0732
Firm Size	-0.104145	0.162781	-0.639789	0.5238
Leverage	0.237984	0.165473	1.438204	0.1536
Constant	-0.951964	1.490551	-0.638666	0.5245
R-squared	0.036877	Mean dependent var		-0.924371
Adjusted R-squared	-0.012262	S.D. dependent var		1.023306
S.E. of regression	1.013202	Sum squared resid		100.6046
F-statistic	0.750459	Durbin-Watson stat		1.178152
Prob(F-statistic)	0.587705			

Hausman Test

Chi-Sq(5) = 10.3361   Prob<Chi-Sq = 0.0663

Significant level at 5%   Random Effects regression

Source: Field data (2018)

Table 13: Regression of Board Size, Board Gender Diversity and Board Independence on Stock Market Returns (SMR) for Non-financial Listed Firms

Dependent Variable: SMR

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Board Size	-1.383054	1.373512	-1.006947	0.3166
Gender Diversity	-0.282091	0.208043	-1.355927	0.1784
Board Independence	0.216349	1.546939	0.139856	0.8891
Firm Size	0.335299	0.139223	2.408351	0.0182
Leverage	-0.187865	0.143732	-1.307054	0.1944
Constant	-2.719669	1.182894	-2.299166	0.0237
R-squared	0.114880	Mean dependent var		-0.815730
Adjusted R-squared	0.067293	S.D. dependent var		0.975960
S.E. of regression	0.941869	Sum squared resid		82.50182
F-statistic	2.414103	Durbin-Watson stat		1.249135
Prob(F-statistic)	0.041843			

Hausman Test

Chi-Sq(5) = 5.9820   Prob<Chi-Sq = 0.3080

Significant level at 5%   Random Effects regression

Source: Field data (2018)

Chapter Summary

The chapter presented the descriptive statistics and the correlation matrix of the study variables for financial and non-financial listed firms. The study then proceeded to analyze the effect of board size, board gender diversity and board independence on the accounting based-performance measured by return on asset (ROA), return on equity (ROE) and market-based performance measured by stock market returns (SMR) of the financial and non-financial listed firms in Ghana. It proceeded to explain the result of the control variables against firm performance for both financial and non-financial listed firms

69

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents the summary, conclusions and recommendations of the study. It gives a brief overview of the study, which includes the purpose of the study, methodology and findings. It concludes and gives recommendations based on the findings and also provides suggestions for further research.

Summary

The study seeks to examine the impact of board composition on performance of listed firms in Ghana. The specific issues considered include the impact of board size on performance, the impact of board gender diversity on performance as well as the impact of board independence on performance of listed firms grouped into financial and non-financial listed firms.

To achieve these objectives inferential statistics was used to analyze data on 30 out of 37 listed firms spanning from 2008 to 2017. This includes eight (8) financial and twenty-two (22) non-financial listed firms. Criterion sampling technique was used to select the sample. The results of the study were analyzed and discussed within the context of the stated objectives while making reference to literature. This quantitative study presented analyses on board composition and firm performance over the ten-year period.

The first research objective seeks to examine the effect of board size on performance of listed firms in Ghana. Findings from this objective of the study is that board size has positive significant effect on return on asset (ROA) and return on equity (ROE) of financial listed firms but has no significant

70

effect on ROA and ROE of non-financial ones. Using stock market returns (SMR) as a market performance measure, it was found that board size does not have any significant impact on SMR of both financial and non-financial listed firms. This means that the number of people on the board have positive influence on accounting performance of the firms but has no influence on their market performance. It also indicates that both accounting and market performance of non-financial listed firms are not affected by the board size.

The second research objective seeks to ascertain the effect of board gender diversity on performance of listed firms in Ghana. The study revealed that board gender diversity does not have significant effect on return on asset (ROA) as well as the return on equity (ROE) of both financial and non-financial listed firms. It was also found that board gender diversity does not have any significant impact on stock market returns (SMR) of both groups of firms. This implies that the proportion of female on board has no influence on the performance of listed firms in Ghana.

The third research objective evaluates the effect of board independence on performance of listed firms in Ghana. The study found that board independence has a significant positive effect on performance of both financial and non-financial listed firms using return on asset (ROA) and return on equity (ROE) as measures of performance. It also revealed that board independence has no significant impact on Stock market returns (SMR) of both financial and non-financial listed firms. This means that the higher the proportion of non-executive directors on the board the better the operational or accounting performance of listed firms in Ghana. However the proportion of

non-executive directors has no significant influence on stock market performance

Conclusions

The role of board of directors is very crucial in corporate governance. The composition of these boards of directors of the companies may determine how best a board can play its role to achieve the objectives of the firm. Various literature give different conclusions on the relationship between board composition and the performance of firms. Positive, negative and mixed results were revealed in prior studies. Others also found no relationship at all. This study also looks at the effect of board composition on performance of listed firms in Ghana and offers a number of conclusions that add to literature on corporate issues based on its specific objectives and the findings.

The study analyzed the impact of board size, board gender diversity and board independence on performance of financial listed firms with return on asset, return on equity and stock market returns as the measure of performance. It further analyzed the impact of board size, board gender diversity and board independence on performance of non-financial listed firms using the same measures of performance.

The study found that board size has positive significant effect on return on asset (ROA) and return on equity (ROE) of financial listed firms but has no significant effect on ROA and ROE of non-financial ones. This concludes that the higher the number of people on the board the better the returns or profit from the operations of the financial listed firms. It further concludes that the number of people on the board has no influence on returns or profits from the operations of non-financial listed firms. Also, the study

72

concludes that the number of people on the board has no impact on the share price appreciation of the listed firms (both financial and non-financial) on the Ghana Stock Exchange.

In addition, a conclusion is drawn from the study that the proportion of female directors on the board does not affect the operational and the stock market performance of both financial and non-financial listed firms in Ghana as the result indicated insignificant effect of board gender diversity on ROA, ROE, and SMR of both groups of firms.

Furthermore, the study revealed a significant positive effect of board independence on operational or accounting profit of both financial and non-financial listed firms. This concludes that the higher the proportion of non-executive directors on the board the better the operational or accounting performance of both financial and non-financial listed firms in Ghana. It however revealed that board independence has no significant impact on Stock market returns (SMR) of both financial and non-financial listed firms. This concludes that the proportion of non-executive directors has no significant impact on share price appreciation of financial and non-financial listed firms on the stock market in Ghana.

Recommendations

In view of the findings made and conclusions drawn, the study recommends that shareholders and other stakeholders in the financial sector should consider having relatively large board size when appointing directors. Bank of Ghana and insurance commission should make a policy to ensure that banks, micro finance, insurance and other firms in the financial sector have relatively large board size. Number of board members with diverse skills and

73

expertise in business field helps the board to ensure good corporate governance and better firm performance in the financial sector.

The study also found that proportion of women on the board of listed firms in Ghana has no impact on firm performance of both financial and non-financial listed firms. The study recommends that shareholders and other stakeholders should focus on the competence of board appointees and not their gender. The ratio of female to male board of directors has nothing to do with the effectiveness of the board in their roles but rather the relevant corporate skills, knowledge and experience of members are key considerations.

In addition, the study revealed that proportion of non-executive directors on the board affect operational or accounting profits of both financial and non-financial listed firms in Ghana positively, but has no effect on stock market performance. Stakeholders should ensure that boards of listed firms have high proportion of outside directors to improve performance in their operations. The study recommends that Ghana Stock Exchange should increase the listing requirement of 50% non-executive board members to ensure high improvement end efficiency in the monitoring and controlling of the activities of the managers and the executive directors.

Suggestions for Further Research

While this study concentrated only on listed firms, future research should be extended to the non-listed firms in Ghana. Future scholars can also work on the effect of other board composition and characteristics variables such as the CEO duality, ownership structure and board diversity issues including academic and professional qualification and the age of board members on firm performance in Ghana.

74

REFERENCES

Abdullah, S. N. (2004). Board Composition, CEO Duality and Performance among Malaysian Listed Companies: Corporate Governance. *The International Journal of Business in Society*, *4*(4), 47-61

Abdullah, S. N., Ku Ismail, K. N. I., & Nachum, L. (2012). Women on boards of Malaysian firms: Impact on market and accounting performance. Available at http://papers.ssrn.com/sol3/papers.cfm?abstractid= 21450 07.

Abor, J. & Biekpe, N. (2007), Corporate governance, ownership structure and performance of SMEs in Ghana: implications for financing opportunities, *Corporate Governance*, *7*(3)*, 288-300.

Adams R.B., & Mehran H. (2001). Bank board structure and performance: Evidence for large bank holding companies. Journal of Financial Intermediation, *21*(1), 243-267

Adams, C. A., & Harte, G. (1998). The changing portrayal of the employment of women in British banks' and retail companies' corporate annual reports. *Accounting, Organizations and Society, 23*(8), 781-812.

Adams, R. & Mehran H. (2002). Board structure, banking firm performance, and the bank holding company organizational form, Working paper, Federal Reserve Bank of New York.

Adams, R. B. (2003). What do boards do? Evidence from board committee and director compensation data. Working paper, University of Queensland.

Adams, R. B. (2012). Governance and the Financial Crisis. *International Review of Finance, 12*(1), 7-38.

Adams, R. B., & Ferreira, D. (2007). A theory of friendly boards. *The Journal of Finance*, *62*(1), 217-250.

Adams, R. B., & Ferreira, D. (2009). Women in the Boardroom and their Impact on Governance and Performance. *Journal of Financial Economics, 94*(2), 291-309.

Adams, R. B., & Mehran, H. (2005). Corporate Performance, Board Structure and its Determinants in the Banking Industry. EFA 2005 Moscow Meetings.

Agrawal, A., & Knoeber, C. R. (1996). Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantitative analysis*, *31*(3), 377-397.

Agyapong, D., & Appiah, S. (2015). Effect of Gender Diversity on the Performance of Non-financial Listed Firms in Ghana. *British Journal of Economics, Management & Trade*, *8*(1), 55-67.

Ahern, K. R., & Dittmar, A. K. (2012). The Changing of the Boards: The Impact on Firm Valuation of Mandated Female Board Representation. *The Quarterly Journal of Economics, 127*(1), 137-197.

Al-Mamun, A., Yasser, Q. R., Entebang, H., Nathan, T. M., & Rahman, M. A. (2013). Gender diversity and economic performance of firms: Evidences from emerging market. *Journal of Economic Development, Management, IT, Finance, and Marketing*, *5*(2), 100-110.

Alves, S. (2014). The effect of board independence on the earnings quality: evidence from Portuguese listed companies. *Australasian Accounting, Business and Finance Journal*, *8*(3), 23-44

Amidu, M. & Abor, J. (2006). Gender and the Composition of Corporate Boards A Ghanaian Study. Indian journal of gender studies, *13*(1),83-95.

Amidu, M. (2007). Determinants of capital structure of banks in Ghana: an empirical approach. *Baltic Journal of Management*, *2*(1), 67-79.

Amidu, M., & Hinson, R. (2006). Credit risk, capital structure and lending decisions of banks in Ghana. *Banks and Bank Systems*, *1*(1), 93-101.

Amran, N. A. (2011). The Effect of Owner's Gender and Age to Firm Performance: A review on Malaysian Public Listed Family Businesses. *Journal of Global Business and Economics, 2*(1), 104-116.

Andres, P., & Vallelado, E. (2008). Corporate governance in banking: The role of the board of directors. *Journal of Banking and Finance, 32*, 2570–258

Arfken, D. E. Bellar, S. L. & Helms, M. M. (2004). "The ultimate glass ceiling revisited: The presence of women on corporate boards". Journal of Business Ethics, 50(2), 177-186.

Atrill P., McLaney E., Harvey D., & Jenner M. (2009). Accounting: An introduction. 4th ed. Pearson Education, Australia.

Awan, S. H. (2012). Effect of board composition on firm performance: A case of Pakistan listed companies. *Interdisciplinary Journal of Contemporary Research in Business, 3*, 853–863.

Azmi, I. A. & Barrett, M. A. (2013). *Women on boards and company financial performance: A study of Malaysian SMEs.* Paper presented at the Proceedings of 3rd global accounting, finance and economics conference, Melbourne, Australia.

Baltagi, B.H. (2001). *Econometric Analysis of Panel Data*, Second Edition, John Wiley & Sons, Ltd., New York.

Banks, E. (2004). *Corporate governance: Financial responsibility, controls and ethics*. New York: Palgrave Macmillan.

Becker, G. S. (1957). *The Economics of Discrimination.* Chicago: University of Chicago Press.

Bennedsen, M., Kongsted, H. C., & Nielsen, K. M. (2008). The causal effect of board size in the performance of small and medium-sized firms. *Journal of Banking & Finance*, *32,* 1098-1109.

Bennedsen, M., Kongsted, H., & Nielsen, M. (2004). Board Size Effect in Closely Held Corporations. Retrieved from www.econ.ku.dk/camon

Berger, P. G., Ofek, E., & Yermack, D. L. (1997). Managerial entrenchment and capital structure decisions. *The journal of finance*, *52*(4), 1411-1438.

Bhagat, S., & Black, B. (1999). The uncertain relationship between board composition and firm performance. *Business Lawyer*, *54*, 921-963.

Bhagat, S., & Black, B. (2002). The non-correlation between board independence and Long-term firm performance. *Journal of Corporation Law* Winter, *27*(2), 231

Bianco, M., Ciavarella, A., & Signoretti, R. (2011). Women on corporate boards in Italy. *Bank of Italy Occasional Paper*, (174).

Bigelow, L., & Parks, J. M. (2006). Gender stereotypes hold back investors. *PostGazzette. com.*

Black, B. S., Hasung, J. & Woochang, K. (2003). Does Corporate Governance Affect Firm Value? Evidence from Korea. *Social Science Research Network Working Paper*No.311275. http://papers.ssrn.com/sol3/ papers. Cfm?abstract_id=311275.Accessed, July 14, 2015

Blankson, E., Cheng, M. S., & Spears, N. (2007). Determinants of banks selection in USA, Taiwan and Ghana. *International Journal of Bank Marketing, 25(*7), 469-489.

Bokpin, G. A. (2013). Corporate disclosure, transparency and firms' cash holdings: Evidence from the Emerging capital market of Ghana. *Journal of Economics and International Finance, 5*(4), 106-113

Bokpin, G. A. (2013). Ownership structure, corporate governance and bank efficiency. An empirical analysis of panel data from the banking industry in Ghana, Corporate Governance. *The international journal of business in society, 13*(3), 274 – 287

Bokpin, G. A., & Nyarko, S. E. (2009). Assessing the corporate governance practices of the hospitality industry in Ghana. *Journal* of *Investment Management and Financial Innovations, 6*(3), 18-24

Boone, A. L., Field, L. C., Karpoff, J. M., & Raheja, C. G. (2007). The Determinants of Corporate Board Size and Composition: An Empirical Analysis. *Journal of Financial Economics, 85*, 65-101.

Bosch, H. (1995). *The Director at Risk: Accountability in the Boardroom,* Pitman Publishing, Melbourne

Boubakri, N., Cosset, J. C., & Saffar, W. (2008). Political Connections of Newly Privatized Firms. .*Journal of Corporate Finance, 14*, 654-673.

Boyd, B. K. (1995). CEO duality and firm performance: A contingency model, *Strategic Management Journal*, *16*(4), 301-312.

Bozec, R. (2005). Boards of Directors, Market Discipline and Firm Performance. *Journal of Business Finance and Accounting,* 32(9/10), 1921-1960

Brammer, S., Millington, A., & Pavelin, S. (2007). Gender and ethnic diversity among UK corporate boards. *Corporate Governance: An International Review*, *15*(2), 393-403.

Branco, M. C., & Rodrigues, L. L. (2007). Issues in corporate social and environmental reporting research: An overview. *Issues in Social and Environmental Accounting, 1*(1), 72-90.

Branco, M. C., & Rodrigues, L. L. (2008). Factors influencing social responsibility disclosure by Portuguese companies. *Journal of Business Ethics, 83*, 685-701.

Branson, D. (2006). No seat at the table: How corporate governance keeps women out of America's boardrooms. New York University Press, New York

Branson, D. M. (2011). Initiatives to place women on corporate boards of directors-A global snapshot. *J. Corp. L.*, *37*, 793.

Brennan, N. (2006). Boards of Directors and Firm Performance: Is there an Expectations Gap? *Corporate Governance: An International Review,* 14(6), 577-593.

Brick, I. B., Palmon, O., & Wald, J. K., (2006). CEO Compensation, Director Compensation and Firm Performance: Evidence of Cronyism. *Journal of Corporate Finance,* 12(3), 403-423.

Brown, L. & Caylor, M. (2006). Corporate governance and firm valuation. *Journal of Accounting and Public Policy,* 25, 409-434

Brown, L., & Caylor, M. (2006). Corporate governance and firm operating performance. *Working Paper, Georgia State University.*

Brunnermeier, M. (2009). Deciphering the liquidity and credit crunch 2007-2008. *Journal of Economics Perspectives, 23*, 77–100.

Burke, R., (1995). Do Women on Corporate Boards Make a Difference? Views of Women Directors, *Corporate Governance*, *3*, 138–143.

Burke, R.J., & Mattis, M.C. (2000). *Women in Corporate Boards of Directors: International Challenges and Opportunities*. Kluwer Academic Publisher, Netherland.

Cadbury report, (1992). Committee on the Financial Aspects of Corporate Governance. *New York: Oxford University Press.*

Campbell, D., Moore, G., & Shrives, P. (2006). Cross-sectional effects in community disclosure. *Accounting, Auditing & Accountability Journal*, *19*(1), 96-114.

Campbell, K., & Minguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of business ethics, 83(3), 435-451.*

Campbell-Hunt, C. (2000), "*What have we learned about generic competitive strategy? A meta-analysis*", *Strategic Management Journal*, *21*, 127-540.

Carlsson, R. H. (2001). *Ownership and Value Creation: Strategic Corporate Governance in the New Economy*. Chichester, England: John Wiley & Sons.

Carter, D. A., D'Souza, F., Simkins, B. J., & Simpson, W. G. (2010). The Gender and Ethnic Diversity of US Boards and Board Committees and Firm Financial Performance. *Corporate Governance: An International Review, 18*(5), 396-414.

Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate Governance, Board Diversity, and Firm Value. *The Financial Review*, *38*, 33– 53.

Carter, D.A., D'Souza, F., Simkins, B.J., & Simpson, W.G. (2010). The gender and ethnic diversity of US boards and board committees and firm financial performance. Corporate Governance: An International Review, *18*(5):396-417

Carter, N. M., & Wagner, H. M. (2011). The Bottom Line: Corporate Performance and women's Representation on Boards (2004–2008). *Catalyst (2011).*

Catalyst. (2004). *The Bottom Line: Connecting Corporate Performance and Gender Diversity*. Catalyst Publication Code D58, New York.

Chalhoub, M. S. (2009). Relations between dimensions of corporate governance and corporate performance: an empirical study among banks in the Lebanon. *International Journal of Management, 26*(3), 476-88.

Cheng, L. T. W., Chan, R. Y. K., & Leung, T. Y. (2010). Management demography and corporate performance: Evidence from China. *International Business Review*, *19*(3*)*, 261-275.

Cho, D. & Kim, J. (2007). Outside Directors, Ownership Structure and Firm Profitability in Korea. *Corporate Governance: An International Review, 15*(2), 239-250.

Claessens, S. & van Horen, N. (2012). Foreign banks: trends, impact and financial stability. Working paper, International Monetary Fund, Washington, DC.

Claessens, S., Demirguc-Kunt, A., & Huizinga, H. (2001). How does foreign entry affect domestic banking markets? *Journal of Banking and Finance,* 25, 891-911.

Clark, T. S., & Linzer, D. A. (2012). *Should I use fixed or random effects?* http://polmeth.wustl.edu/media/Paper/ClarkL

Clarke, T. (2010). Theories of Corporate Governance: The philosophical foundations of corporate governance. Routledge, London and New York.

Cochran, P.L. & Wood, R.A. (1984).Corporate social responsibility and financial performance". *Academy of Management Journal, 27*, 42-56

Cohen, J. (2014). *Applied multiple regression and correlation analysis for the behavioral sciences* (3rd ed.). New York: Routledge

Coles, J. L., Daniel, N. D., & Naveen, L. (2008). Board: Does one Size Fit All? *Journal of Financial Economics*, *87*(2), 329-356

Coles, J. W., McWilliams, V. B., & Sen, N. (2001). An examination of the relationship of governance mechanisms to performance. *Journal of management*, *27*(1), 23-50.

Conyon, M. J., & Peck, S. I. (1998). Board size and corporate performance: Evidence from European countries. *The European Journal of Finance*, 4, 291-304.

Cornelius, P. (2005). Good corporate practices in poor governance systems: Some evidence from the global competitiveness report. *Corporate Governance, 5*(3), 12-23.

Cornett, M. M., Guo, L., Khaksari, S., & Tehranian, H. (2010). The impact of state ownership on performance differences in privately-owned versus state-owned banks: An international comparison. *Journal Financial Intermediation, 19, 74*-94.

Coulson-Thomas, C. (1993). *Creating Excellence in the boardroom: A guide to shaping directorial competence and board effectiveness*. London: McGraw-Hill.

Cox, T. H. & Blake, S. (1991). 'Managing Cultural Diversity: Implication for Organizational Competitiveness'*, Academy of Management Executive 5, 45-56.*

Creswell, J. W. (2013). *Qualitative inquiry and research design choosing among five approaches* (3rd ed.). Los Angeles, CA: Sage Publications.

Creswell, J. W. (2014). *Research design qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage Publications.

Croson, R., & Gneezy, U. (2009). Gender differences in preferences. *Journal of Economic literature*, *47*(2), 448-74.

Curdova, A. (2005), *'Discrimination Against Women in the Workforce and the Workplace', Committee on Equal Opportunities for Women and Men,*

Dahlerup, D. (2013). High representation of women without gender quotas. *Breaking male dominance in old democracies*, 146-172.

Dalton, C. M. & Dalton, D. R. (2005). Boards of Directors: Utilizing Empirical Evidence in Developing Practical Prescriptions. *British Journal of Management, 16*, s91-s97.

Dalton, D. R., & Daily, C. M. (1999). What's wrong with having friends on the board? *Across the board*, *36*(3), 28-32.

Dalton, D. R., Daily, C. M., Ellstrand, A. E. & Johnson, J. L. (1998). Meta-analytic Reviews of Board Composition, Leadership Structure, and Financia Performance. *Strategic Management Journal, 19*(3), 269-290.

Dalton, R. D., Daily, C. M., Johnson, L. G. & Ellstrand, E. A. (1999). Number of Directors and Financial Performance: A Meta-Analysis. *The Academy of Management Journal*, *42*(6), 674-686

Darko, J., Aribi, Z.A. & Uzonwanne, G.C. (2016). Corporate governance: the impact of director and board structure, ownership structure and corporate control on the performance of listed companies on the Ghana stock exchange, *Corporate Governance*, *16* (2), 259-277

Davidson III, W. N., & Rowe, W. (2004). Intertemporal endogeneity in board composition and financial performance. *Corporate ownership and control*, *1*(4), 49-60.

Dawson, C. (2002). *Practical research methods.* New Delhi: UBS Publishers Distributors.

Deegan, C, Rankin, M. & Tobin, J (2002). 'An examination of the corporate social and environmental disclosures of BHP from 1983-1997: A test of legitimacy theory', Accounting, *Auditing and Accountability Journal*, *15*(3), 312-343

Deegan, C. (2002). Introduction: The legitimising effect of social and environmental disclosures–a theoretical foundation. *Accounting, Auditing & Accountability Journal*, *15*(3), 282-311.

Deegan, C. (2009). *Financial Accounting Theory*, 3nd Edition, McGraw-Hill, NSW.

Dezsö, C. L., & Ross, D. G. (2012). Does female representation in top management improve firm performance? A panel data investigation. *Strategic Management Journal*, *33*(9), 1072-1089.

Dinç, S. (2005). Politicians and banks: Political influences on government-owned banks in emerging Markets. *Journal of Financial Intermediation, 77*, 453–479.

Dobbin, F., & Jung, J. (2010). Corporate board gender diversity and stock performance: The competence gap or institutional investor bias. *NCL Rev.*, *89*, 809.

Dobbin, F., & Jung, J. (2011). Corporate board gender diversity and stock performance: The competence gap or institutional investor bias? *North Carolina Law Review*, 89, 809- 838

Donaldson, G. (1995). A New Tool for Boards: The Strategic Audit. *Harvard Business Review,* 73(4), 99–107.

Donaldson, L. & Preston, L. E. (1995). The Stakeholder Theory of Corporation: Concepts, Evidence and Implication. *Academy of Management Review, 20*(1), 65.

Donaldson, L. (1990). The Ethereal Hand: Organisational Economics and Management Theory .*Academy of Management*, 15(3) 369-381

Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management, 16*(1), 49–64.

Donaldson, L., & Davis, J. H. (1994). Boards and Company Performance – Research Challenges the Conventional Wisdom. *Corporate Governance: An International Review, 2*(3), 65–91.

Donaldson. L., & Davis, H. J. (1994). Boards and company performance – Research challenges the conventional wisdom. *Corporate Governance: An International Review, 2*(3), 151-160

Dutta, P., & Bose, S. (2006). Gender diversity in the boardroom and financial commercial banks: Evidence from Bangladesh', *The Cost and Management*, *34*(6), 70-74.

Dwivedi, N., & Jain, A. K. (2005). Corporate governance and performance of Indian firms: The effect of board size and ownership. *Employee Responsibilities and Rights Journal*, *17*(3), 161-172.

Echave, J. O., & Bhati, S. S. (2010). Determinants of social and environmental disclosures by Spanish companies.

Eisenberg, T., Sundgren, S., & Wells, M. T. (1998). Larger board size and decreasing firm value in small firms. *Journal of Financial Economics,* 48, 35-54.

Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. *Academy of Management Review*, *14* (1) 57-74

Eisenhardt, K. M., & Zbarcki, M. J. (1992). Strategic Decision Making. *Strategic Management Journal, 13*(7), 17-37.

Eklund, J. E, Palmberg, J. & Wiberg, D. (2009). Ownership Structure, Board Composition and Investment Performance. CESIS Electronic Working Paper Series, Paper no. 172.

Elsayed, K. (2007). Does CEO duality really affect corporate performance? *Corporate Governance: An International Review*, *15*(6), 1203 - 1224.

Equal Opportunity for Women in the Workplace Agency, (2006). EOWA Australian census of women in leadership. On-line document from www.eowa.gov.au.

Erhardt, N.L., Werbel, J.D. & Shrader, C.B. (2003). Board of Director Diversity and Firm. Financial Performance. *Corporate Governance, 11*(2), 102-111.

Faccio, M. (2006). Politically connected firms. *The American Economic Review, 96* (1), 369-386.

Fadzlan, S. (2012). Determinants of multinational banks' subsidiary performance: the host and home country effects. *Journal of Economic and Administrative Sciences, 28*(2), 130 – 155

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy*, *88*, 288-307.

Fama, E. F., & French, K. R. (1992). The cross-section of expected stock returns. *The Journal of Finance*, *47*(2), 427-465.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics,* 26(2), 301 –

Farrar, D. E., & Glauber, R. R. (2012). Multicollinearity in regression analysis. *Review of Economics and Statistics*, *49*, 92-107.

Fauzi, F., & Locke, S. (2012). Board Structure, Ownership Structure and Firm Performance: A study of New Zealand Listed-Firms. *Asian Academy of Management Journal of Accounting and Finance, 8*(2), 43–67.

Franke, G. R., Crown, D. F., Spake, D. F. (1997). Gender differences in ethical perceptions of business practices: A social role theory perspective. *Journal of Applied Psychology,* 82(6), 920-934.

Freeman, R. E., Wicks, C. A., & Parmar, B. (2004). Stakeholder Theory and the Corporate Objective Revisited. *Organization Science*, 15(3), 36

Fuzi, S, F., Adliana, S, A., & Julizaerma, M, K. (2016). Board Independence and Firm Performance. *Procedia Economics and Finance, 37*, 460 – 465.

Gabrielsson, J. (2007). Correlates of Board Empowerment in Small Companies. *Entrepreneurship Theory and Practice,* 31(5), 687–711.

Gallego-Álvarez, I., García-Sánchez, I. M., & Rodríguez-Dominguez, L. (2010). "The influence of gender diversity on corporate performance". *Revista de Contabilidad*, *13*(1), 53-88.

Garrett, B. (1993). 'Directing and the Learning Board in Corporate Governance' in T. Clarke. (Ed.). *Executive Development,* 6(3), 21–27.

Garrett, B. (1996). *The Fish Rots from the Head: The Crisis in our Boardrooms – Developing the Crucial Skills of the Competent Directors.* London: Harper Collins Business.

Ghanaian Banker (2019). Continuing professional development: A sure way to professional competency. *Journal of Chartered Institute of Bankers Ghana, 1*, 22-26.

Ghana Companies Act 2019 (Act 992).

Gray, L. E., Ryan, B., Hotchkiss, A. K., & Crofton, K. M. (2010). Rebuttal of "flawed experimental design reveals the need for guidelines requiring appropriate positive controls in endocrine disruption research" by vom Saal. *Toxicological Sciences*, *115*(2), 614-620.

Greene, W.H. (2012). *Econometric analysis* (5th ed.). New Jersey: Prentice Hall.

Griffin, J.J., & Mahon, J.F. (1997). The corporate social performance and corporate financial performance debate: Twenty-five years of incomparable research. *Business and Society*, vol.36, no.1.

Guest, P. M. (2008).The determinants of board size and composition: Evidence from the UK, *Journal of Corporate Finance*, 14, 51-72.

Gujarati, D. N. (2003). *Basic econometrics* (4th ed.). New York: The McGraw-Hill.

Haniffa, R. & Hudaib, M. (2006). Corporate governance structure and performance of Malaysian listed companies, *Journal of Business Finance & Accounting*, 33, 1034-1062.

Harris, M., & Raviv, A. (2008). A Theory of Board Control and Size. *Review of Financial Studies*, 21(4), 1797-1832.

Hasnas, J. (1998). The normative theories of business ethics: A guide for the perplexed. *Business Ethics Quarterly*, *8*(1), 19-42.

Hennigs, N., Wiedmann, K. P., Behrens, S. H., & Klarmann, C. (2014). Tasting green: an experimental design for investigating consumer perception of organic wine. *British Food Journal*.

Hennigs, T. K. N. (2014). Corporate social responsibility and environmental reporting in controversial industries. *European Business Review, 26*(1), 79-81.

Hermalin, B. E. & Weisbach, M. S. (1988). The determinants of board composition, *Rand Journal of Economics*, 19, 589-606.

Hermalin, B. E. & Weisbach, M. S. (2003) Boards of directors as an endogenously determined institution: A survey of the economic evidence, *Economic Policy Review*,9, 7-26.

Hermalin, B. E. & Weisbach, M. S. (2003). Boards of directors as an endogenously determined institution: A survey of the economic evidence, *Economic Policy Review*,9, 7-26.

Hermalin, B., & Weisbach, M. (1991). The Effects of Board Composition and Direct Incentives on Firm Performance. *Financial Management*, 20(4), 101.

Herring, C. (2009). Does diversity pay? Race, gender, and the business case for diversity. *American Sociological Review*, 74, 208-224.

Higgs, D. (2003) *Review of the Role and Effectiveness of Non–Executive Directors*, Department of Trade and Industry/HMSO, London.

Hillman, A. J. (2005). Politicians on the board of directors: do connections affect the bottom line. *Journal of Management*, 31, 464–481.

Hillman, A. J., & Dalziel, T. (2003). Boards of Directors and Firm Performance: Integrating Agency and Resource Dependence Perspectives. *Academy of Management Review, 28*(3), 383–396.

Hillman, A. J., Cannella, A. A., & Harris, I. C. (2002). Women and racial minorities in the boardroom: How do directors differ? *Journal of Management*, *28*(6),747-763.

Hopkins, D. (2008). *A teacher's guide to classroom research*. McGraw-Hill.

Hsiao, C. (2003). *Analysis of panel data.* Cambridge: University Press.

Hung, H. (2011) Directors' roles in corporate social responsibility: A stakeholder perspective. *Journal of Business Ethics*, published online 30 April 2011.

Huse, M., & Solberg, A. G. (2006). Gender Related Boardroom Dynamics: How Scandinavian Women Make and Can Make Contributions on Corporate Boards. *Women in Management Review,* 21(2), 113-130

Huther, J. (1997). An empirical test of the effect of board size on firm efficiency, *Economics Letters,* 54,259–264.

Isshaq, Z., Bokpin, G. A., & Onumah, J. M. (2009). Corporate governance, ownership structure, cash holdings, and firm value on the Ghana Stock Exchange. *The Journal of Risk Finance*.

Javed, A. Y., & Iqbal, R. (2008). Ownership concentration, corporate governance and firm performance: evidence from Pakistan, *The Pakistan Development Review*, 47, 643– 659.

Javed, A. Y., & R. Iqbal (2006). Corporate governance and firm performance: evidence from Karachi Stock Exchange, The Pakistan Development Review, 45, 947–964.

Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review*, 76(2), 323-329.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of financial economics, 3(4), 305-360.*

Jensen, M., C. (1993). The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems. *The Journal of Finance*, *48*(3), 831-880.

Jianakoplos, N. A. & A. Bernasek: (1998), 'Are Women More Risk Averse?'*, Economic Inquiry 36, 620-630.*

Jiraporn, P., Singh, M., & Lee, C. I. (2009). Ineffective corporate governance: Director business and board committee memberships. *Journal of Banking and Finance*, 33: 819–828.

Johnson, J. L., Daily, C. M., & Ellstrand, A. E. (1996). Boards of directors: a review and research agenda. *Journal of Management*, 22 (3), 409-438.

Johnson, R. B. (1997). The board of directors over time: Composition and the organizational life cycle. *International Journal of Management*, *14*(3), 243-246

Johnson, R.B., Onwuegbuzie, A.J., & Turner, L.A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(20), 112-133.

Kajola, S. O. (2008). Corporate governance and firm performance: The case of Nigerian listed firms. *European journal of economics, finance and administrative sciences*, *14*(14), 16-28.

Kaplan, R. S. (2009). *Risk Management and the Strategy Execution System*. New York: Harvard Business Publishing.

Karamanou, I. & Vafeas, N. (2005). The association between corporate boards, audit committees, and management forecasts: An empirical analysis. *Journal of Accounting Research,* 43, 453-486.

Kathuria, V., & Dash, S. (1999). Board size and corporate financial performance: an investigation. *Vikalpa*, *24*(3), 11-17.

Kiel, G., & Nicholson, G. (2003). *Boards that Work: A new guide for directors.* Sydney: McGraw Hill.

Kiel, G., & Nicholson. G. (2003). Board Composition and Corporate Performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate Governance: An International Review,* 11(3), 189–205.

Kiel, G., & Nicholson. G. (2004). A Framework for Diagnosing Board Effectiveness. *Corporate Governance: An International Review,* 12(4), 442–460.

Kirkpatrick, G. (2009). The Gorporate Governance Lessons from the Financial Crisis. *OECD Journal: Financial Market Trends, 2009*(1), 61-87.

Klein, A. (1998). Firm performance and board committee structure. *Journal of Law and Economics, 41*(1), 275–303

Kohler, U., & Kreuter, F. (2009). *Data analysis using Stata*. New York: Stata Press.

Krstić, J., & ðorñević, M. (2012). Internal Control and Enterprise Risk Management - from Traditional to Revised COSO Model. *Economic Themes, 50*(2), 151-166.

Kumar, N., & Singh, J. P. (2013). Effect of board size and promoter ownership on firm value: some empirical findings from India. *Corporate Governance: The international journal of business in society*, *13*(1), 88-98.

Kyereboah-Coleman, A. (2007). 'Corporate governance and shareholder value maximization: an African perspective', African Development Review, *19*, 350–367.

Kyereboah-Coleman, A. (2007). Relationship between corporate governance and firm performance: An African perspective. (Doctoral Thesis, university of Stellenbosch). Retrieved from http://etd.sun.ac.za/jspui/ handle/10019/664

Kyereboah-Coleman, A., & Amidu, M. (2008). The link between small business governance and performance: The case of the Ghanaian SME sector. *Journal of African Business*, *9*(1), 121-143.

Kyereboah-Coleman, A., & Biekpe, N. (2006). Do boards and CEOs matter for bank performance? A comparative analysis of banks in Ghana. *Corporate Ownership and Control, 4*(1), 119-126.

Langton, N., & Robbins, S. P. (2007). *Organizational behaviour: Concepts, controversies, applications*. Pearson Prentice Hall.

Larmou, S., & Vafeas, N. (2010). The relation between board size and firm performance in firms with a history of poor operating performance. *Journal Management Government, 14*, 61–85

Leedy, P., & Ormrod, J. (2010). *Practical research: Planning and design* (7th ed.). Upper Saddle River, NJ: Merrill Prentice Hall.

Lehn, K., Sukesh, P. & Zhao, M. (2004). Determinants of the size and structure of corporate boards: 1935-2000, Working Paper, Katz Graduate School of Business.

Levy, H., & Post, T. (2005). *Investments*. Edinburgh: Pearson Education Limited.

Linck, J., Netter, J. & Yang, T. (2008). The determinants of board structure, *Journal of Financial Economics*, 87,308-328.

Lipton, M. & Lorsch, J. W. (1992). A modest proposal for improved corporate governance, *Business Lawyer*, 48, 59-77.

Liu, Y., Miletkov, M., Wei, Z., & Yang, T. (2015). Board independence and firm performance in China. *Journal of Corporate Finance*, 30, 223-244.

Ljungquist, U. (2007). How do core competencies discriminate? Identification of influencing similarities and differences. *Knowledge and process management*, *14*(4), 237-247.

Lorsch, J. W. (1995, January - February). Empowering the Board. *Harvard Business Review,* 107–117.

Lorsch, J. W. (1997). Should Directors Grade Themselves? *Across the Board,* 34(5), 40–44.

Lorsch, J., Andargachew, S., & Pick, K. (2001). Unbalanced Boards. *Harvard Business Review*, (February 2001).

Mak, Y. T. & Kusnadi, Y. (2005). Size really matters: Further evidence on the negative relationship between board size and firm value, *Pacific-Basin Finance journal*, **13**, 301-318.

Mak, Y. T., & Li, Y. (2001). Determinants of corporate ownership and board structure: Evidence from Singapore. *Journal of Corporate Finance*, *7*(3), 235-256.

Mallin, C. (2001). Corporate Governance and the Bottom Line. *Corporate Governance: An International Review, 9*(2), 77-78.

Mallin, C. (2013). *Corporate governance (4th Ed)*. Oxford: Oxford University Press.

Mallin, C.A. (2004). *Corporate Governance*, Oxford University Press, Oxford.

Marinova, J., Plantenga, J., & Remery, C. (2010). Gender diversity and firm performance: Evidence from Dutch and Danish boardrooms. *Discussion paper*, School of Economics, University of Utrecht, Utrecht.

Marinova, J., Plantenga, J., & Remery, C. (2016). Gender diversity and firm performance: Evidence from Dutch and Danish boardrooms. *The International Journal of Human Resource Management*, *27*(15), 1777-1790.

Masulis, R. W., Wang C., & Xie, F. (2012). Globalizing the boardroom– the effects of foreign directors on corporate governance and firm performance. *Journal of Accounting and Finance*, 53,527–664.

McManus, P. A. (2011). *Introduction to regression models for panel data analysis*. Indiana: University Press.

Mertens, D. M. (2010). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative and mixed methods* (3rd ed.). Thousand Oaks: Sage.

Monks, R. A. G., & Minnow N. (1995). *Corporate Governance for the 21st Century: Watching the watchers.* Cambridge, MA: Blackwell Publishers.

Monks, R. A. G., & Minnow N. (2004). *Corporate Governance.* Malden, MA: Blackwell Publishers.

Monks, R. A. G., & Minnow, N. (1991). *Power and Accountability.* New York: Harper- Business.

Muth, M. M., & Donaldson, L. (1998). Stewardship theory and board structure: A contingency approach. *Corporate Governance: An International Review,* 6(1), 111-132

Neimark, M. (1992). *The hidden dimensions of annual reports: Sixty years of social conflict at General Motors*. Markus Wiener Pub.

Neuman, W. L. (2014). *Social research methods: Qualitative and quantitative approaches*. Edinburgh: Allyn and Bacon.

Nielsen, S., & Huse, M. (2010). The contribution of women on boards of directors: Going beyond the surface. *Corporate governance: An international review*, *18*(2), 136-148.

Obradovich, J., & Gill, A. (2013). The Impact of Corporate Governance and Financial Leverage on the Value of American Firms. Faculty Publications and Presentations, Paper 25.

Omoye, S. A., & Eriki, P. O. (2013). Diversity in Board Ethnicity and Firm Performance: An Empirical Investigation of Selected Quoted Firms in Nigeria. African Journal of Social Sciences, 3 (4), 35- 45.

Omoye, S. A., & Eriki, P. O. (2013). Diversity in Board Ethnicity and Firm Performance: An Empirical Investigation of Selected Quoted Firms in Nigeria. African Journal of Social Sciences, 3 (4), 35- 45.

Osei, B. (2016). *Board gender diversity and firm performance of listed firms in Ghana* (Master's dissertation, Kwame Nkrumah university of Science and technology). Retrieved from http://ir.knust.edu.gh/handle/123456789/8536

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N, & Hoagwood, K. (2013). *Purposeful sampling for qualitative data collection and analysis in mixed method implementation research*. New York: Springer

Pearce, J. A., & Zahra, S. A. (1992). Board composition from a strategic contingency perspective. *Journal of Management Studies, 29*(2), 411-438.

Pfeffer, J. (1972). Size and composition of corporate boards of directors. *Administrative Science Quarterly,* vol. 21, pp. 218-230

Pfeffer, J., & Salancik, G. (1978). *The External Control of Organizations: A Resource Dependence Perspective*, Harper & Row, New York.

Pudjiastuti, W., & Mardiyah, A. A. (2006). The Influence of earnings management on earnings quality. In *Padang. Symposium Nasional Akuntansi* , 9, 22-26

Ragothaman, S., & Gollakota, K. (2009). The effect of firm characteristics on corporate governance: An empirical study in the United States. *International Journal of Management*, *26*(2), 309.

Randøy, T., Thomsen, S., & Oxelheim, L. (2006). A Nordic perspective on corporate board diversity. *Age*, *390*(0.5428).

Reiter, B.J., & Rosenberg, N. (2003) Meeting the Information Needs of Independent Directors. *Ivey Business Journal*.

Rindova, V. P. (1999). What Corporate Boards Have To Do With Strategy: A Cognitive Perspective. *Journal of Management Studies,* 36(7), 953–975.

Ritchie, T. (2007). Independent directors: magic bullet or Band-Aid? *Corporate Governance Journal.* Available at http://epublications.bond.edu.au/cgej/5.

Rittenberg, L. E., Schwieger, B. J., & Johnstone, K. M. (2008). Auditing: A Business Risk Approach 6. bs. *Mason, USA: Thomson South-Western*.

Rose, C. (2007). Does female board representation influence firm performance? The Danish evidence. *Corporate Governance: An International Review*, 15(2), 404-413.

Rosenstein, S., & Wyatt, J. G. (1990). Outside directors, board independence, and shareholder wealth. *Journal of financial economics*, *26*(2), 175-191.

Ross, S. A., Westerfield, R.W., & Jaffe, J. (2006). *Corporate finance* (6th ed.). New York: McGraw-Hill Companies.

Saibaba, M. D. (2013). Do board independence and CEO duality matter in firm valuation?-An empirical study of Indian companies. *IUP Journal of Corporate Governance*, *12*(1), 50.

Sanda, A.U., Mukaila, A.S., & Garba T. (2003). Corporate Governance Mechanisms and Firm Financial Performance in Nigeria. Final Report Presented to the Biannual Research Workshop of the AERC, Nairobi, Kenya, 24-29

Sarbanes, P. (2002). *Sarbanes-Oxley Act of 2002*. Paper presented at the The public company accounting reform and investor protection Act. Washington DC: Us congress.

Shrader, C. B., Blackburn, V. B., & Iles, P. (1997). Women in Management and Firm Financial Performance: An Exploratory Study. Journal of Managerial Issues 9, 355-372.

Siriwardhane, P. (2003). Broadening the Boardroom: Corporate Governance and Company performance in Lanka. [Online] Available: pavithra. siriwardhane@rmit.edu.au. Accessed, July 14, 2014

Skjelsbæk, I. (2010). The elephant in the room. *An Overview of How Sexual Violence came to be Seen as a Weapon of War. Oslo: PRIO Peace Research Institute Oslo*.

Smith, N., Smith, V., & Verner, M. (2006). Do Women in Top Management affect Firm Performance? A panel study of 2500 Danish firms. International Journal of Productivity & Performance Management 55, 569-593.

Spiegel, M. R., & Stephens, L. J. (2008). *Theory and problems of statistics* (4th ed.). New York: McGraw-Hill.

Steans, J. (1998). *Gender and international relations: An introduction*. Rutgers University Press.

Stiles, P. (2001). The impact of the board on strategy: An empirical examination. *Journal of Management Studies*, *38*(5), 627-650.

Taghizadeh, M., & Saremi, S. (2013). Board of directors and firms performance: evidence from Malaysian public listed firm. *International Proceedings of Economics Development and Research*, *59*, 178.

Taghizadeh, M., & Saremi, S. (2013). Board of directors and firms performance: evidence from Malaysian public listed firm. *International Proceedings of Economics Development and Research*, *59*, 178.

Topak, M. S. (2011). The effect of board size on firm performance: Evidence from Turkey. *Middle Eastern Finance and Economics*, *14*(1), 1450-2889.

Tornyeva, K., & Wereko, T. (2012). Corporate Governance and Firm Performance: Evidence from the Insurance Sector of Ghana. *European Journal of Business and Management*, 4 (13), 95–112.

Unerman, J. (2000). Methodological issues: Reflections on quantification in corporate social reporting content analysis. *Accounting, Auditing & Accountability Journal, 13*(5), 667-680.

Verboom S., & Ranzijn, M. (2004). Connecting corporate performance and genderdiversity;Available:http://www.europeanpwn.net/files/connection corporate_performance_and_gender_diversity.Pdf

Volonte, C. (2015). 'Boards: independent and committed directors?, *International Review of Law and Economics,* 41, 25–37.

Watson, A., Shrives, P., & Marston, C. (2002). Voluntary disclosure of accounting ratios in the UK. *British Accounting Review, 34*(4), 289–313.

Webb, E. (2004). An examination of socially responsible firms' board structure. *Journal of Management and Governance*, 8(3), 255-277.

Wen, Y., Rwegasira, K. & Bilderbeek, J. (2002). "*Corporate governance and capital structure decisions of Chinese listed firms*", *Corporate Governance: An International Review*, Vol. 10 No. 2, pp. 75-83.

Wheelen, J. D. & Hunger, T.L. (2004). *Strategic Management and Business Policy*. (9th edition). Upper Saddle River, NJ: Pearson-Prentice Hall

White, H. (1980). A heteroskedasticity-consistent covariance matrix and a direct test for heteroscedasticity. *Econometrica, 48*, 817–838

Whitworth, S. (1997). The International Labour Organisation. In *Feminism and International Relations* (pp. 119-152). Palgrave Macmillan, London.

Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data*. MIT press.

Yaffee, R. (2003). *A primer for panel data analysis*. New York: University Information Technology Services.

Yermack, D. (1996). Higher market valuation of companies with a small board of directors, *Journal of Financial Economics*, 40, 185-221.

Zaheer, N. (2013). Effects of duality, board size and board composition on corporate governance disclosure in Pakistan. *International SAMANM Journal of Finance and Accounting*, *1*(3), 1-16.

Zahra, S. A., & Pearce II, J. A. (1989). Boards of Directors and Corporate Financial Performance: A Review and Integrative Model. *Journal of Management,* 15(2), 291-334.

Zahra, S. A., & Stanton, W. W. (1998). The implications of board of directors composition for corporate strategy and performance. *International journal of management*, *5*(2), 229-236.

Zajac, E. J., & Westphal, J. D. (1996). Director Reputation, CEO-Board Power, and the Dynamics of Board Interlocks. *Administrative Science Quarterly,* 41, 507–529.

Zelechowski, D. D., & Bilimoria, D. (2004). Characteristics of Women and Men Corporate Inside Directors in the US. *Corporate Governance: An International Review, 12*(3), 337–342.

APPENDICES

Appendix A: Descriptive Statistics of the Variables of Financial Listed Firms

	BGDIV	BIND	BSIZE	FSIZE	LEV	ROA	ROE	SMR
Mean	0.164098	0.755915	9.512500	2.33E+09	0.776410	0.048136	0.254998	0.547676
Median	0.133929	0.763889	9.000000	1.37E+09	0.827526	0.047193	0.248693	0.452579
Maximum	0.444444	0.909091	14.00000	2.24E+10	0.927556	0.152456	0.680289	1.846154
Minimum	0.000000	0.571429	7.000000	59986000	0.501693	-0.063925	-0.432133	-0.024490
Std. Dev.	0.092893	0.107381	1.591065	3.59E+09	0.127309	0.039375	0.205305	0.422880
Skewness	0.709587	-0.243884	0.185802	4.008993	-0.864220	0.021445	-0.418578	0.779093
Kurtosis	3.319437	1.770586	2.488061	21.44879	2.358998	4.028017	3.626016	3.094612
Jarque-Bera	7.053641	5.831255	1.333905	1348.820	11.32797	3.528862	3.642423	8.125560
Probability	0.029398	0.054170	0.513270	0.000000	0.003469	0.171284	0.161830	0.017201
Sum	13.12781	60.47316	761.0000	1.86E+11	62.11281	3.850849	20.39987	43.81404
Sum Sq. Dev	0.681703	0.910919	199.9875	1.02E+21	1.280408	0.122482	3.329866	14.12740
Observations	80	80	80	80	80	80	80	80

Appendix B: Descriptive Statistics of the Variables of Non-financial Listed Firms

	BGDIV	BIND	BSIZE	FSIZE	LEV	ROA	ROE	SMR
Mean	0.140468	0.835201	7.836364	2.98E+09	1.218974	0.008207	-0.033829	0.370699
Median	0.125000	0.857143	8.000000	38393414	0.659349	0.026764	0.137375	0.237834
Maximum	0.600000	0.923077	13.00000	8.69E+10	30.61851	5.712588	11.19087	1.942308
Minimum	0.000000	0.600000	3.000000	91956.00	0.049271	-4.190113	-8.069237	-0.181818
Std. Dev.	0.137127	0.064128	2.291646	1.37E+10	3.698787	0.526546	3.775780	0.432399
Skewness	1.053151	-1.226048	0.087298	4.837384	6.469107	3.402946	4.165475	1.190216
Kurtosis	3.850244	4.602930	2.397890	25.53671	44.94125	82.09107	100.5825	3.955881
Jarque-Bera	47.29471	78.66978	3.602685	5513.790	17659.27	57765.75	87924.43	60.31819
Probability	0.000000	0.000000	0.165077	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	30.90298	183.7442	1724.000	6.56E+11	268.1742	1.145465	-7.442291	81.55373
Sum Sq. Dev.	4.118032	0.900605	1150.109	4.13E+22	2996.144	60.71797	20928.93	40.94614
Observations	220	220	220	220	220	220	220	220

Appendix C: Correlation Matrix for Independent and Control Variables of Financial Listed Firms

	BGDIV	BIND	BSIZE	LEV	FSIZE
BGDIV	1				
BIND	-0.162221	1			
BSIZE	0.181710	0.303451	1		
LEV	0.238193	0.000220	-0.192823	1	
FSIZE	0.291246	0.120937	0.243549	0.179134	1

Appendix D: Correlation Matrix for Independent and Control Variables of Non-financial Listed Firms

	BGDIV	BIND	BSIZE	LEV	FSIZE
BGDIV	1				
BIND	0.182717	1			
BSIZE	0.099288	0.131525	1		
LEV	0.172844	-0.116749	-0.179037	1	
FSIZE	-0.079925	0.193627	0.240542	-0.188945	1

Appendix E: Regression Result of Board Size, Board Gender Diversity

and Board Independence on Return on Asset of Financial Listed Firms

(Fixed Effect)

Dependent Variable: LOG(ROA)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.850425	4.870425	-1.817177	0.0744
LOG(BGDIV)	-0.291038	0.239796	-1.213690	0.2299
LOG(BIND)	-2.647803	4.087940	-0.647711	0.5198
LOG(LEV)	-0.686736	0.950554	-0.722458	0.4730
LOG_BSIZE	4.069984	4.343303	0.937071	0.3527
LOG_FSIZE	0.030697	0.277420	0.110653	0.9123

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.449332	Mean dependent var	-3.078619
Adjusted R-squared	0.333402	S.D. dependent var	0.681486
S.E. of regression	0.556402	Akaike info criterion	1.831335
Sum squared resid	17.64627	Schwarz criterion	2.248913
Log likelihood	-51.09672	Hannan-Quinn criter.	1.997202
F-statistic	3.875888	Durbin-Watson stat	1.351276
Prob(F-statistic)	0.000242		

Appendix F: Regression Result of Board Size, Board Gender Diversity and Board Independence on Return on Asset of Financial Listed Firms (Random Effect)

Dependent Variable: LOG(ROA)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-10.30789	2.452297	-4.203362	0.0001
LOG(BGDIV)	-0.313392	0.199139	-1.573738	0.1205
LOG(BIND)	2.821873	1.023183	2.757934	0.0076
LOG(LEV)	-1.322135	0.709359	-1.863844	0.0669
LBSIZE	3.474526	2.021472	1.718810	0.0905
LFSIZE	0.225170	0.230892	0.975218	0.3331

Effects Specification

		S.D.	Rho
Cross-section random		0.287438	0.2107
Idiosyncratic random		0.556402	0.7893

Weighted Statistics

R-squared	0.162948	Mean dependent var	-1.685704
Adjusted R-squared	0.097553	S.D. dependent var	0.626589
S.E. of regression	0.551197	Sum squared resid	19.44433
F-statistic	2.491762	Durbin-Watson stat	1.259042
Prob(F-statistic)	0.040004		

Unweighted Statistics

R-squared	0.291737	Mean dependent var	-3.078619
Sum squared resid	22.69643	Durbin-Watson stat	1.078638

Appendix G: Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.919803	5	0.5610

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOG(BGDIV)	-0.291038	-0.313392	0.017846	0.8671
LOG(BIND)	-2.647803	-2.821873	15.664345	0.9649
LOG(LEV)	-0.686736	-1.322135	0.400364	0.3153
LBSIZE	4.069984	3.474526	14.777938	0.8769
LFSIZE	0.030697	0.225170	0.023651	0.2060

Cross-section random effects test equation:

Dependent Variable: LOG(ROA)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.850425	4.870425	-1.817177	0.0744
LOG(BGDIV)	-0.291038	0.239796	-1.213690	0.2299
LOG(BIND)	-2.647803	4.087940	-0.647711	0.5198
LOG(LEV)	-0.686736	0.950554	-0.722458	0.4730
LBSIZE	4.069984	4.343303	0.937071	0.3527
LFSIZE	0.030697	0.277420	0.110653	0.9123

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.449332	Mean dependent var	-3.078619
Adjusted R-squared	0.333402	S.D. dependent var	0.681486
S.E. of regression	0.556402	Akaike info criterion	1.831335
Sum squared resid	17.64627	Schwarz criterion	2.248913
Log likelihood	-51.09672	Hannan-Quinn criter.	1.997202
F-statistic	3.875888	Durbin-Watson stat	1.351276
Prob(F-statistic)	0.000242		

Appendix H: Regression Result of Board Size, Board Gender Diversity

and Board Independence on Return on Equity of Financial Listed Firms

(Fixed Effect)

Dependent Variable: LOG(ROE)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.456804	4.550719	-1.418854	0.1614
LOG(BGDIV)	-0.319182	0.224055	-1.424571	0.1597
LOG(BIND)	-3.812783	3.819598	-0.998216	0.3224
LOG(LEV)	2.035602	0.888158	2.291937	0.0256
LBSIZE	4.331515	4.058199	1.067349	0.2903
LFSIZE	-0.044026	0.259210	-0.169847	0.8657

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.614239	Mean dependent var	-1.416854
Adjusted R-squared	0.533026	S.D. dependent var	0.760775
S.E. of regression	0.519879	Akaike info criterion	1.695543
Sum squared resid	15.40562	Schwarz criterion	2.113121
Log likelihood	-46.34400	Hannan-Quinn criter.	1.861410
F-statistic	7.563328	Durbin-Watson stat	1.549005
Prob(F-statistic)	0.000000		

Appendix I: Regression Result of Board Size, Board Gender Diversity and Board Independence on Return on Equity of Financial Listed Firms (Random Effect)

Dependent Variable: LOG(ROE)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-7.115231	2.349309	-3.028649	0.0035
LOG(BGDIV)	-0.293735	0.191241	-1.535941	0.1295
LOG(BIND)	3.210909	1.048740	3.061681	0.0032
LOG(LEV)	1.668331	0.686984	2.428485	0.0180
LBSIZE	3.216022	1.957757	1.642708	0.0923
LFSIZE	0.161390	0.220974	0.730356	0.4678

Effects Specification

			S.D.	Rho
Cross-section random			0.311276	0.2639
Idiosyncratic random			0.519879	0.7361

Weighted Statistics

R-squared	0.322704	Mean dependent var	-0.708619
Adjusted R-squared	0.269790	S.D. dependent var	0.631650
S.E. of regression	0.518601	Sum squared resid	17.21260
F-statistic	6.098678	Durbin-Watson stat	1.399323
Prob(F-statistic)	0.000112		

Unweighted Statistics

R-squared	0.455889	Mean dependent var	-1.416854
Sum squared resid	21.72946	Durbin-Watson stat	1.108448

114

Appendix J: Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.816250	5	0.4387

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOG(BGDIV)	-0.319182	-0.293735	0.013628	0.8274
LOG(BIND)	-3.812783	-3.210909	13.489469	0.8698
LOG(LEV)	2.035602	1.668331	0.316877	0.5141
LBSIZE	4.331515	3.216022	12.636167	0.7537
LFSIZE	-0.044026	0.161390	0.018360	0.1295

Cross-section random effects test equation:

Dependent Variable: LOG(ROE)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.456804	4.550719	-1.418854	0.1614
LOG(BGDIV)	-0.319182	0.224055	-1.424571	0.1597
LOG(BIND)	-3.812783	3.819598	-0.998216	0.3224
LOG(LEV)	2.035602	0.888158	2.291937	0.0256
LBSIZE	4.331515	4.058199	1.067349	0.2903
LFSIZE	-0.044026	0.259210	-0.169847	0.8657

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.614239	Mean dependent var	-1.416854
Adjusted R-squared	0.533026	S.D. dependent var	0.760775
S.E. of regression	0.519879	Akaike info criterion	1.695543
Sum squared resid	15.40562	Schwarz criterion	2.113121
Log likelihood	-46.34400	Hannan-Quinn criter.	1.861410
F-statistic	7.563328	Durbin-Watson stat	1.549005
Prob(F-statistic)	0.000000		

Appendix K: Regression Result of Board Size, Board Gender Diversity and Board Independence on Stock Market Return of Financial Listed Firms (Fixed Effect)

Dependent Variable: LOG(SMR)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.541867	9.030587	0.945882	0.3482
LOG(BGDIV)	-0.232068	0.389152	-0.596341	0.5533
LOG(BIND)	15.03493	7.588227	1.981349	0.0524
LOG(LEV)	-0.894259	1.526251	-0.585919	0.5602
LBSIZE	-15.79843	7.607128	-2.076793	0.0423
LFSIZE	1.078016	0.431686	2.497221	0.0154

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.350318	Mean dependent var	-0.903755
Adjusted R-squared	0.213542	S.D. dependent var	1.001067
S.E. of regression	0.887771	Akaike info criterion	2.765778
Sum squared resid	44.92378	Schwarz criterion	3.183355
Log likelihood	-83.80222	Hannan-Quinn criter.	2.931645
F-statistic	2.561265	Durbin-Watson stat	1.540395
Prob(F-statistic)	0.008758		

Appendix L: Regression Result of Board Size, Board Gender Diversity and Board Independence on Stock Market Return of Financial Listed Firms (Random Effect)

Dependent Variable: LOG(SMR)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.047778	4.795601	-1.052585	0.2965
LOG(BGDIV)	-0.292093	0.354380	-0.824237	0.4129
LOG(BIND)	1.821382	2.425648	0.750885	0.4555
LOG(LEV)	-1.518904	1.305119	-1.163806	0.2488
LBSIZE	-4.066647	3.827146	-1.062579	0.2920
LFSIZE	0.850247	0.400373	2.123638	0.0376

Effects Specification

			S.D.	Rho
Cross-section random			0.814942	0.4573
Idiosyncratic random			0.887771	0.5427

Weighted Statistics

R-squared	0.077718	Mean dependent var	-0.309613
Adjusted R-squared	0.005665	S.D. dependent var	0.880200
S.E. of regression	0.878394	Sum squared resid	49.38083
F-statistic	1.078620	Durbin-Watson stat	1.388259
Prob(F-statistic)	0.380681		

Unweighted Statistics

R-squared	0.067104	Mean dependent var	-0.903755
Sum squared resid	64.50723	Durbin-Watson stat	1.062724

Appendix M: Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.720257	5	0.5904

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOG(BGDIV)	-0.232068	-0.292093	0.025854	0.7089
LOG(BIND)	15.034928	1.821382	51.697427	0.0661
LOG(LEV)	-0.894259	-1.518904	0.626107	0.4299
		-		
LBSIZE	15.798432	-4.066647	43.221348	0.0743
LFSIZE	1.078016	0.850247	0.026055	0.1582

Cross-section random effects test equation:

Dependent Variable: LOG(SMR)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.541867	9.030587	0.945882	0.3482
LOG(BGDIV)	-0.232068	0.389152	-0.596341	0.5533
LOG(BIND)	15.03493	7.588227	1.981349	0.0524
LOG(LEV)	-0.894259	1.526251	-0.585919	0.5602
LBSIZE	-15.79843	7.607128	-2.076793	0.0423
LFSIZE	1.078016	0.431686	2.497221	0.0154

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.350318	Mean dependent var	-0.903755
Adjusted R-squared	0.213542	S.D. dependent var	1.001067
S.E. of regression	0.887771	Akaike info criterion	2.765778
Sum squared resid	44.92378	Schwarz criterion	3.183355
Log likelihood	-83.80222	Hannan-Quinn criter.	2.931645
F-statistic	2.561265	Durbin-Watson stat	1.540395
Prob(F-statistic)	0.008758		

120

Appendix N: Regression Result of Board Size, Board Gender Diversity and Board Independence on Return on Asset of Non-financial Listed Firms (Fixed Effect)

Dependent Variable: LOG(ROA)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.019052	4.153885	-0.486064	0.6285
LOG(BGDIV)	-0.279546	0.431863	-0.647303	0.5196
LOG(BIND)	-1.648231	4.602529	-0.358114	0.7214
LOG(LEV)	-0.121070	0.413468	-0.292816	0.7705
LBSIZE	1.915662	2.432646	0.787481	0.4337
LFSIZE	-0.414375	0.402066	-1.030615	0.3063

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.491024	Mean dependent var	-2.641662
Adjusted R-squared	0.336118	S.D. dependent var	1.068896
S.E. of regression	0.870925	Akaike info criterion	2.768242
Sum squared resid	52.33724	Schwarz criterion	3.375263
Log likelihood	-103.9550	Hannan-Quinn criter.	3.013137
F-statistic	3.169824	Durbin-Watson stat	1.563212
Prob(F-statistic)	0.000162		

Appendix O: Regression Result of Board Size, Board Gender Diversity and Board Independence on Return on Asset of Non-financial Listed Firms (Random Effect)

Dependent Variable: LOG(ROA)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.641689	1.627196	-1.623461	0.1082
LOG(BGDIV)	-0.199418	0.277924	-0.717529	0.4750
LOG(BIND)	0.681911	2.855010	0.238847	0.0411
LOG(LEV)	-0.514625	0.217983	-2.360854	0.0205
LBSIZE	0.998961	1.737559	0.574922	0.5669
LFSIZE	-0.209377	0.180298	-1.161286	0.2488

Effects Specification

	S.D.	Rho
Cross-section random	0.572482	0.3017
Idiosyncratic random	0.870925	0.6983

Weighted Statistics

R-squared	0.085836	Mean dependent var	-1.391659
Adjusted R-squared	0.032062	S.D. dependent var	0.960413
S.E. of regression	0.863163	Sum squared resid	63.32923
F-statistic	1.596233	Durbin-Watson stat	1.277874
Prob(F-statistic)	0.169904		

Unweighted Statistics

R-squared	0.152332	Mean dependent var	-2.641662
Sum squared resid	87.16445	Durbin-Watson stat	0.928438

Appendix P: Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.295924	5	0.5076

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOG(BGDIV)	-0.279546	-0.199418	0.109264	0.8085
LOG(BIND)	-1.648231	0.681911	13.032190	0.5186
LOG(LEV)	-0.121070	-0.514625	0.123439	0.2626
LBSIZE	1.915662	0.998961	2.898654	0.5903
LFSIZE	-0.414375	-0.209377	0.129150	0.5684

Cross-section random effects test equation:

Dependent Variable: LOG(ROA)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.019052	4.153885	-0.486064	0.6285
LOG(BGDIV)	-0.279546	0.431863	-0.647303	0.5196
LOG(BIND)	-1.648231	4.602529	-0.358114	0.7214
LOG(LEV)	-0.121070	0.413468	-0.292816	0.7705
LBSIZE	1.915662	2.432646	0.787481	0.4337
LFSIZE	-0.414375	0.402066	-1.030615	0.3063

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.491024	Mean dependent var	-2.641662
Adjusted R-squared	0.336118	S.D. dependent var	1.068896
S.E. of regression	0.870925	Akaike info criterion	2.768242
Sum squared resid	52.33724	Schwarz criterion	3.375263
Log likelihood	-103.9550	Hannan-Quinn criter.	3.013137
F-statistic	3.169824	Durbin-Watson stat	1.563212
Prob(F-statistic)	0.000162		

Appendix Q: Regression Result of Board Size, Board Gender Diversity and Board Independence on Return on Equity of Non-financial Listed Firms (Fixed Effect)

Dependent Variable: LOG(ROE)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.785394	4.592082	-0.388798	0.6985
LOG(BGDIV)	0.036955	0.474651	0.077858	0.9381
LOG(BIND)	-7.156631	4.021791	-1.779464	0.0790
LOG(LEV)	1.088748	0.437074	2.490991	0.0148
LBSIZE	1.403152	2.639047	0.531689	0.5964
LFSIZE	-0.198670	0.449201	-0.442274	0.6595

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.380547	Mean dependent var	-1.439428
Adjusted R-squared	0.202454	S.D. dependent var	1.102215
S.E. of regression	0.984338	Akaike info criterion	3.005479
Sum squared resid	77.51366	Schwarz criterion	3.615723
Log likelihood	-132.2849	Hannan-Quinn criter.	3.252707
F-statistic	2.136791	Durbin-Watson stat	1.523732
Prob(F-statistic)	0.006877		

Appendix R: Regression Result of Board Size, Board Gender Diversity and Board Independence on Return on Equity of Non-financial Listed Firms (Random Effect)

Dependent Variable: LOG(ROE)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.951964	1.490551	-0.638666	0.5245
LOG(BGDIV)	0.185147	0.275875	0.671128	0.5037
LOG(BIND)	0.909239	2.185658	0.416003	0.0732
LOG(LEV)	0.237984	0.165473	1.438204	0.1536
LBSIZE	0.944824	1.730519	0.545977	0.5863
LFSIZE	-0.104145	0.162781	-0.639789	0.5238

Effects Specification

		S.D.	Rho
Cross-section random		0.471018	0.1863
Idiosyncratic random		0.984338	0.8137

Weighted Statistics

R-squared	0.036877	Mean dependent var	-0.924371
Adjusted R-squared	-0.012262	S.D. dependent var	1.023306
S.E. of regression	1.013202	Sum squared resid	100.6046
F-statistic	0.750459	Durbin-Watson stat	1.178152
Prob(F-statistic)	0.587705		

Unweighted Statistics

R-squared	0.048377	Mean dependent var	-1.439428
Sum squared resid	119.0788	Durbin-Watson stat	0.995370

Appendix S: Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	10.336155	5	0.0663

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOG(BGDIV)	0.036955	0.185147	0.149186	0.7012
LOG(BIND)	-7.156631	0.909239	11.397699	0.0169
LOG(LEV)	1.088748	0.237984	0.163653	0.0355
LBSIZE	1.403152	0.944824	3.969876	0.8181
LFSIZE	-0.198670	-0.104145	0.175284	0.8214

Cross-section random effects test equation:

Dependent Variable: LOG(ROE)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.785394	4.592082	-0.388798	0.6985
LOG(BGDIV)	0.036955	0.474651	0.077858	0.9381
LOG(BIND)	-7.156631	4.021791	-1.779464	0.0790
LOG(LEV)	1.088748	0.437074	2.490991	0.0148
LBSIZE	1.403152	2.639047	0.531689	0.5964
LFSIZE	-0.198670	0.449201	-0.442274	0.6595

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.380547	Mean dependent var	-1.439428
Adjusted R-squared	0.202454	S.D. dependent var	1.102215
S.E. of regression	0.984338	Akaike info criterion	3.005479
Sum squared resid	77.51366	Schwarz criterion	3.615723
Log likelihood	-132.2849	Hannan-Quinn criter.	3.252707
F-statistic	2.136791	Durbin-Watson stat	1.523732
Prob(F-statistic)	0.006877		

Appendix T: Regression result of Board Size, Board Gender Diversity and Board Independence on Stock Market Return of Non-financial Listed Firms (Fixed Effect)

Dependent Variable: LOG(SMR)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.453241	4.590305	-2.059393	0.0429
LOG(BGDIV)	-0.334360	0.485098	-0.689264	0.4928
LOG(BIND)	2.537017	2.920073	0.868820	0.3877
LOG(LEV)	-0.003652	0.458086	-0.007972	0.9937
LBSIZE	1.345347	2.441444	0.551046	0.5832
LFSIZE	0.925729	0.488039	1.896833	0.0617

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.297147	Mean dependent var	-0.824677
Adjusted R-squared	0.081606	S.D. dependent var	0.977072
S.E. of regression	0.936357	Akaike info criterion	2.913576
Sum squared resid	65.75727	Schwarz criterion	3.542696
Log likelihood	-120.2220	Hannan-Quinn criter.	3.168119
F-statistic	1.378608	Durbin-Watson stat	1.490043
Prob(F-statistic)	0.150879		

Appendix U: Regression Result of Board Size, Board Gender Diversity and Board Independence on Stock Market Return of Non-financial Listed Firms (Random Effect)

Dependent Variable: LOG(SMR)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.719669	1.182894	-2.299166	0.0237
LOG(BGDIV)	-0.282091	0.208043	-1.355927	0.1784
LOG(BIND)	0.216349	1.546939	0.139856	0.8891
LOG(LEV)	-0.187865	0.143732	-1.307054	0.1944
LBSIZE	-1.383054	1.373512	-1.006947	0.3166
LFSIZE	0.335299	0.139223	2.408351	0.0182

Effects Specification

		S.D.	Rho
Cross-section random		0.055772	0.0035
Idiosyncratic random		0.936357	0.9965

Weighted Statistics

R-squared	0.114880	Mean dependent var	-0.815730
Adjusted R-squared	0.067293	S.D. dependent var	0.975960
S.E. of regression	0.941869	Sum squared resid	82.50182
F-statistic	2.414103	Durbin-Watson stat	1.249135
Prob(F-statistic)	0.041843		

Unweighted Statistics

R-squared	0.117116	Mean dependent var	-0.824677
Sum squared resid	82.60056	Durbin-Watson stat	1.247642

Appendix V: Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	5.981973	5	0.3080

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LOG(BGDIV)	-0.334360	-0.282091	0.192038	0.9051
LOG(BIND)	2.537017	0.216349	6.133804	0.3487
LOG(LEV)	-0.003652	-0.187865	0.189184	0.6719
LBSIZE	1.345347	-1.383054	4.074114	0.1765
LFSIZE	0.925729	0.335299	0.218799	0.2069

Cross-section random effects test equation:

Dependent Variable: LOG(SMR)

Sample: 2008 2017

Periods included: 10

Cross-sections included: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.453241	4.590305	-2.059393	0.0429
LOG(BGDIV)	-0.334360	0.485098	-0.689264	0.4928
LOG(BIND)	2.537017	2.920073	0.868820	0.3877
LOG(LEV)	-0.003652	0.458086	-0.007972	0.9937
LBSIZE	1.345347	2.441444	0.551046	0.5832
LFSIZE	0.925729	0.488039	1.896833	0.0617

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.297147	Mean dependent var	-0.824677
Adjusted R-squared	0.081606	S.D. dependent var	0.977072
S.E. of regression	0.936357	Akaike info criterion	2.913576
Sum squared resid	65.75727	Schwarz criterion	3.542696
Log likelihood	-120.2220	Hannan-Quinn criter.	3.168119
F-statistic	1.378608	Durbin-Watson stat	1.490043
Prob(F-statistic)	0.150879		