

CATHOLIC UNIVERSITY COLLEGE OF GHANA

THE EFFECT OF BOARD OF DIRECTORS' CHARACTERISTICS ON  
BANKING FIRMS' PERFORMANCE: A CASE OF LISTED BANKS IN  
GHANA

ELVIS YEBOAH

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BANKING FIRMS' PERFORMANCE: A CASE OF LISTED BANKS IN  
GHANA

BY

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the requirement for the award of Master of Business Administration degree in  
Accounting

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## **DECLARATION**

### **Candidate's Declaration**

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

Candidate's Signature ..... Date .....

Name: .....

### **Supervisors' Declaration**

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the Catholic University College of Ghana.

Supervisor's Signature .....Date .....

Name: .....

## **ABSTRACT**

The study is focused on examining the effect of board of directors' characteristics on banks performance. A total of eleven (11) banks were covered by the study. The study covered a period of (8) years (2010 – 2017). A panel regression analysis (fixed and random effect) were used to establish the relationship that exist among the board of directors characteristics (board size, non-executive board of directors and female board of directors) and that of firms' performance. The findings reveal that the performance trends for both ROE and ROA rise between 2010 to 2013 and then continuously fall from 2014 to 2016. It rose again in 2017. Also, 72.7 percent of the board of directors are independent directors, 17.5 percent of the board are females and on an average the 9 members constitute the size of listed banks board. Further, board size has significant positive effect on both ROE and ROA (bank performance). Likewise, significant negative effect exist between bank age and bank performance (ROA). Female board size has no significant effect on bank performance (ROE and ROA). Likewise, Bank size measured by total assets has no significant effect on listed banks performance (ROE and ROA). Finally, bank age has significant positive effect on performance (ROA). However, no significant effect exist between bank age and bank performance when return on equity (ROE) was used as a measure of banks' performance. The study, therefore, concludes that female representations on listed banks board are relatively inadequate to yield the needed results in terms of enhancement of firms' performance. The recommends that banks should make constant efforts to increase female representations on their board so as to fully benefit that comes long high female board size (Such as low appetite to risk).

## **KEYWORDS**

Board of Directors

Board Size

Bank Age

Bank Performance

Board of Directors Characteristics

Female Board of Directors

Non-Executive/Independent Directors

Return on Asset (ROA)

Return on Equity (ROE)

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## **DEDICATION**

This study is wholeheartedly dedicated to my wife Ivy Serwaa Anane, and my three sons Nhyirah Kyeremeh Mickson-Yeboah, Wisdom Akwasi Nti-Yeboah and Caleb Evans Kwabena Yeboah for their love, support and encouragement.

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# **CHAPTER ONE**

## **INTRODUCTION**

This study focuses on one arm of corporate governance called board of directors' characteristic and its effect on banks performance. Hence, its links board characteristics such as board independence, female board size and board size to firm performance (return on assets and return on equity). Board characteristics have being identify as on key component of corporate governance that have tremendous effect on the performance of banks across the globe (Bouteska, 2020; Geeta, Narendar, Rao, M, Frank, and Debasis, 2020; David, Lau, Fitriya and Shubatra 2017;). Despite this assertion other studies offer a different view and are of the view that board characteristic does not necessarily on its own impact on firms' performance (Rebeca and Belén, 2017). These two conflicting position provides adequate justification for conducting a study in these area to examine what pertains in Ghana.

Hence, this initial stage of this thesis provides the background to board of directors' characteristics and its effect on bank performance. Further, the problem statement, research objectives and questions scope of the study, justification of the study, limitations and delimitations and how the study is organized are all outlined in this chapter.

### **Background of the Study**

Corporate governance and firms' performance are very significant, which attention has contributed to continuous debate among varying literature as to the level of significant relationship that exist among themselves. The globalisation, liberation and privatization resulting in integration of world economies financial markets and the prominent increase in high profile

corporate scandals in the last two decade has necessitated high attention and prominence granted to corporate governance and firms' performance among researchers, regulatory agencies, government agencies, policy making bodies and academia (Mitra, 2019). Board of directors have being identify as key component of corporate governance and their role in corporate governance has gain maximum consideration in the aftermath of failures of many reputable companies across the globe. Their manner of organising the operations of the firms within which they operates had being questioned (Muhammad and Qadar, 2018). In view of this firms have channel their energies into forming corporates board that lead to enhance business performance.

Tremendous variations have been made in board compositions to reflect the desire characteristics that could lead to improved performance of firms. Fan and Qigeng (2019) assert that from the perspective of internal governance mechanism, board of directors' characteristics have been recognized as an important component that plays a crucial role in enhancing corporate performance.

They further stress that board of directors' characteristics plays a vital role in the corporate governance structure of listed banks and not only limited to acting as watch dog for stockholders. Board of directors execute varying functions within company such as exploring and discoursing on firm strategic policy, supervision management performance, protecting the interest of stockholders among others. The effective and efficient execution of these functions impacts on the firm's performance.

Reformation and restructuring of corporate governance mechanisms has led to corporate success across the world (Wahab, How, & Verhoeven, 2010).

The rationale behind corporate governance practices is that it enhances monitoring tools adopted by board of directors to mitigate agency problems pertaining to shareholders and management (Chalevas, 2011). The significance of corporate governance practices cannot be underestimated especially in less developed economies where investors' protection still remains inadequate and regulatory institutions supervision and operations has increasingly be criticised due to their ineffectiveness (Rafael, Florencio, Andrei, & Robert, 1997) Firms operating within these economies are more likely to adopt corporate governance mechanisms to minimize problems related to agency, in order to attract cheaper funding and more investments (Funchal & Monte-Mor, 2016). As a result potential and existing investors will consider corporate governance structures when making investment decisions (Funchal & Pinto, 2018).

The foundation for all successful corporate organisations is eminent in their corporate governance practices. Board of directors' characteristics is an integral part of an effective and efficient corporate governance mechanisms and practices. One major mechanism that mitigates corporate governance related problems is board of directors' composition. Numerous dimensions can be attributed to board characteristics, namely; executive directors, non-executive directors, independent directors, board size and female board size, board experience, board expertise and board meetings. However, due to scanty information relating to board experience, expertise and board meeting, these construct were excluded from this study. All these dimensions of board characteristics have theoretical and practical implication on the corporate governance structure and its effectiveness on firms' performance (Mitra, 2019).



Funchal and Pinto (2018) are of the view that firms whose managers exert maximum discretion are likely to undertake business projects that are not in almost interest of shareholders or not optimal to the firm, lead to poor or lower future economic performance. However, stronger and effective board characteristics can contribute to minimizing adverse discretion, avoiding managers from undertaking value-damaging projects.

Corporate governance crises faced by developed economies is not peculiar to them only but also emerging economies and African economies of which Ghana is no exception. Recent development emanating from the banking industry is a critical example of corporate governance failure. The banking industry suffered the failure of seven (7) banks, namely, UT bank, UniBank, Royal bank, Capital bank, Beige bank, Sovereign bank and Construction bank due to recapitalization policy adopted by Bank of Ghana to help addressed the banking sector problems. The banking sector did not only suffer from only collapse but rather the demotion of GN bank to savings and loans. Amidst all these disturbing developments, one key factor among the key determinants of the problem was corporate governance structure defects, which is centred on the nature of board directors in these failed banks (Bank of Ghana, 2017, 2018; Iannotta, Nocera, & Sironi, 2007). These has raised serious concerns about board of directors' effectiveness on corporate boards. This calls for critical review of board characteristics so as to ascertain the right board composition that could result to firms' performance enhancement.

### **Statement of the Problem**

The current problem that engulfed the banking industry which led to the collapse of seven (7) banks, merger of other banks and demotion of GN Bank

from to savings and loans have raised serious concerns about the governance structure of these banks. There is continuous debate as to whether corporate governance structures prevailing among banks in Ghana are strong enough to mitigate agency problems. The continuous review of corporate governance code by Bank of Ghana creates an impression that serious lapses still persist in banks corporate governance practices that need serious attention. Poor corporate governance practices adopted by banks have been cited as the key determinants of the recent banking crises in Ghana (Bank of Ghana, 2017, 2018).

The key questions that are normally asked is, what role did the board of directors played in theses failed banks? This calls for urgent attention and review of board composition through careful study of the board characteristics. For this reason undertaken research study in board characteristics as an aspect of corporate governance in relation to bank and its effect on bank performance is a step in the right direction.

Also, despite the dynamics in corporate governance and economic systems across world economies, prior existing literatures have been widely concentrated on United States, United Kingdom and Europe, where existing corporate governance systems distinct from that of Ghana and other emerging markets in Africa. However, research studies relating board of directors' characteristics and firms' performance in Ghana are relatively few and discrepancies exist in their findings due to the scope variables and adopted for their studies. This assertion is affirmed by Rebeca and Belén (2017), who advocates that prior studies on board characteristics and its corresponding effect on companies' performance is centered on divergent theoretical standpoints and empirical findings predominantly established from regression analysis and are

indecisive. This makes the empirical findings for developed economies and a conclusive evidence for what is pertaining in emerging economies, like Ghana.

Fan and Qigeng (2019) stress that board functions within the banking sector have not being given the required sufficient attention. Hence, conducting a study on board of directors' characteristics and banks performance in Ghana will is a step in the right direction.

This will not only provide relevant information relating banks board characteristics but also how these characteristics translates to banks performance enhancement. It is against these background, this current study seeks to examine the effect of board of directors' characteristics on listed banks' performance in Ghana.

### **Research Objectives**

To examine the effect of board of directors characteristics on listed banks performance in Ghana.

### **Specific Objectives**

Specific objectives relating to the studies are outline as follows:

1. To evaluate the performance trend of listed banks in Ghana.
2. To establish the board characteristics of listed banks in Ghana.
3. To examine the effect of board characteristics on listed banks performance in Ghana.

### **Research Questions**

The research questions pertaining to the study under consideration are as follows:

1. What is the performance trend of listed banks in Ghana?
2. What are the board characteristics of listed banks in Ghana?

3. What are the effect of board characteristics on listed banks performance in Ghana?

### **Scope of the Study**

The scope of this study is centred on listed banks in Ghana. The researcher choice for listed banks emanated from the fact that there are available data covering board of directors' characteristics as compared to other sectors of the economy. Thus, readily available and reliable source of data are the main reason for the study choice of listed banks. In addition, this sector is considered to be one of the most highly regulated sector within the Ghanaian economy. Corporate governance disclosure is a one of the key requirement mandated by the regulatory authorities of this sector (thus, Bank of Ghana and Security and Exchange Commission). The study covers board of directors' characteristics such as non-executive directors, executive directors, board independence, board size; some control variables (bank size and age) and profitability measures for performance (return on equity and return on assets). The rational for covering these variables is to establish the effect of these board of directors' characteristics on firms' performance. The research study covers a period of eight (8) years, thus, 2010 to 2017. This is to ensure uniform data availability relating to all listed banks under consideration.

### **Significance of the Study**

This particular study will be of significant benefit to industry and academic in diverse ways. First, the study adds up to the limited literature on corporate governance and firms performance. Second, the study seeks to establish the mix of board of directors' composition that will lead to optimal performance of firms across Africa and the world at large.

This will go a long way to aid firms in setting up their corporate boards. It will provide guidance as to the best combination and right choice of board of directors' characteristics that will lead to enhancing sustainable corporate performance. Third, findings from the study of performance trends of listed banks will help identify the actual performance situation prevailing within the banking sector. This will help address performance lapses and recommendation will help address performance related problems.

Lastly, findings from this study will help government agencies and regulatory agencies and bodies in dynamic ways. Study findings will help regulatory bodies such Bank of Ghana and Security and Exchange Commission in enhancing their corporate governance codes and practices for banks in Ghana. This will assist them in formulating best and standard corporate governance codes and practices to help ensure sanity within the operational performance of banks.

### **Delimitation**

Due to data unavailability for some banks relating to certain periods and time inadequacy on the part of the researcher impeded the scope of the study. Inadequate corporate governance disclosures by listed Ghanaian banks in the area of board chairman age, average board age, board expertise in accounting and finance, board meetings among others affected the study scope in terms of covering more corporate governance variables which could have further enhanced the study.

### **Limitations**

Expanding the number of banks under consideration to include non-listed banks and other non-financial institutions could have considerably

enhance the study findings. However, due to lack of non-financial data, specifically corporate governance variables, makes it practically impossible to cover all banking and non-banking institutions. Similarly, time factor makes it impracticable to expand the number of firms under consideration. However, the study sought that all banks that have all the variables required for the study were included in the study to enhance its findings.

### **Definition of Terms**

The key terms employ for the study are outline beneath:

- Corporate governance. Corporate governance for the purpose of this study is outline as the laws, systems, rules and factors that regulate the firms' operations (Gillian and Starks, 2007). It includes structure of ownership, board characteristics/composition and monitoring systems. However, this study is centred on board of directors' characteristics.
- Board of directors' characteristics comprises the total number of executive directors, non-executive directors, independent directors, board size and female directors represented on the company's board.
- Executive directors. This refers to the total number of board of directors who works within the company.
- Non-executive directors. This also refers to the total number of board of directors who does not work within the company.
- Board size. It refers to the total number of members on the board of a company
- Independent directors. This refer to the ratio of non-executive directors to total board size.

- Female board size. This refers to the total number of board of directors that are females.

### **Organisation of Study**

The study is structured into five chapters. Chapter One, the introduction of the study, which is composed of background of the study, statement of the problem, research objectives, research questions, significance, scope of the study, delimitations, limitations, organization of the study and summary of the chapter. Chapter Two is composed of the literature review. In this chapter, the study takes a crucial look at research related to corporate governance and firms' performance. Chapter Three constitutes the methodology of the study. It is the composition of the study area, study type, study design, population of the study, sampling and sample techniques, instruments, data analysis and ethical consideration. The analysis of data and discussions together form the fourth chapter. This chapter lays emphasis on the data gathered from the field with questionnaires. Chapter Five concludes the study with summary of findings, conclusions and recommendations.

### **Chapter Summary**

The fundamental purpose of this study was to examine the effect of board of directors' characteristics on listed Ghanaian banks performance. The study was set to achieve four (4) objectives, namely, (1) to examine performance (profitability) trend of listed banks, (2) to establish the relationship between independent and non-executive directors and listed banks' performance, (3) to establish the effect of board size on listed banks' performance, (4) to establish the relationship between female board of directors and listed banks' performance. The study covered 11 listed banks for a period

eight (8) years, thus, from 2010 to 2017. The motivation for carrying out this research emanated from the banking crises which eluded the Ghanaian banking sector in 2017.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **Introduction**

This section of the study reviews theoretical and empirical literature relating to corporate governance, firm's performance and banks corporate board of directors' composition.

#### **Conceptual Review**

Conceptual framework covers corporate governance, firms' performance, board size, independent and non-executive directors, female board directors and firms' size are reviewed.

#### **Corporate Governance**

The Cadbury Committee referred to corporate governance as a set of guidelines and rules by which firms are controlled and directed (Cadbury, 1992). Principally, corporate governance relates to resolving the agency problem initially identified by Berle and Means (1932), and further advanced by Jensen and Meckling (1976) and several other scholars.

Corporate governance involves designing schemes that provide assurance to suppliers of funds to firms and obtain a maximum-quality return on their funding (Porta, Lakonishok, Shleifer & Vishny, 1997) through the minimization of agency inconsistency view.

It is a composition of succession of mechanisms through which the management interest, the board of directors, majority shareholders, minority shareholders and other business stakeholders may be connected. These mechanisms may be external or internal to the firm.

Internal corporate governance mechanisms include: structure of ownership, the composition of board of directors and monitoring system. On the other hand, external corporate governance tools is also made up of rules and regulation, external capital needs, takeover markets and competitors (Denis & McConnell, 2003). Literature concerning corporate governance highlights that good corporate governance practices supports upbringing of long standing value creation for existing investors and other key stakeholders. Its objectives are to afford incentives for board of directors and managements to pursue the aims that are in the interest of shareholders and company as well. Optimal interaction between owners, managers and the board of directors leads to corporate governance. An important corporate governance instrument is the firms' board of directors, nevertheless, the nature of the organization between diverse interest clusters is also partially determined by the legal environment (Campbell & Minguez-Vera, 2007).

With respect to the external corporate governance, codes are characterized into three statutory developments in corporate governance literature across the globe. To start with, the UK Cadbury Committee (1992) reported of promoters of best practice corporate governance code.

Their recommendations entail a wide-ranging scope of corporate governance practices plus the composition and structure of the key board of directors and committees to which the board of directors are assigned, and highlight the significance of non-executive directors. It further introduces the "explain or comply" principle whereby firms that do not obey the corporate governance code must provide motives for their non-adherence. There have been revisions during the course of the two decades of practical usage of the

corporate governance code and further suggestions are in what is now called UK corporate governance code. In October 2012, a modification to the Code was instituted. It obliges firms to publish their policy concerning gender diversity in the board of directors and report alongside it yearly (FRC, 2011).

OECD (2019) principles of corporate governance endorses certain does and suggestions in relation to the roles of board of directors in corporations. It obliges that the corporate governance structure guarantees the tactical direction of the corporation by the board of directors. Therefore, its answerability to the corporation and its stockholders. The utmost predominant board set-up is the one-tier board structure, which is two times the total of countries that use two-tier boards (supervisory and management boards). An emergent number of countries permit both one and two-tier systems. Nearly, every country recommends the least parentage of non-executive directors that are at the same time independent. Over the years, the meaning assigned to independent directors is changing.

80 percent of countries recommends that board of directors should be independent of stockholder who have maximum shareholdings in order to be group as independent board of director. The number of countries who requires this as the definition of independent directors have increased from 65 percent in 2015 to 80 percent in 2019. 2 percent to 50 percent has being uphold as the shareholding percentage that constitute significant ownership. However, the most predominant significant shareholdings among many countries lies between 10 percent and 15 percent.

A separation between the chief executive officer (CEO) and board chairman has also be strongly advocated (OECD, 2019). In Ghana, this

recommendation have being fully implemented. In addition gender diversity among corporate boards and top level managements has also being advocated for. Many countries set gender quotas for firms to adopt. Thus, nine countries have a mandatory gender quota of board representation. In the survey conducted by OECD on corporate governance principles 49 percent of countries have demanded the disclosure board gender composition. Also, 22 percent of countries have also mandated the disclosure of gender make-up of senior managements. The survey further stress that the proportion of females on serving as senior management in corporations far outweighs the proportion of females acting as members of board of directors (OECD, 2019).

The second statutory development to consider under corporate governance is the Accounting Industry Reform Act 2002, which is also referred to as the Sarbanes-Oxley.

This act was signed subsequent to the emergence of two foremost corporate governance scandals that bedeviled the United States and caused the fall of WorldCom and Enron. Its prime objective is to provide protection potential and existing investors by enhancing the trustworthiness and precision of corporate disclosures. This particular restructuring deals with potential close working associations and conflict of interest between firms and their respective auditors. It formulates mandatory independence of firms' external auditors, strengthening CEOs and CFOs duties through the imposition of severe penalties for misleading users of financial information about the financial position and performance of their firms in annual financial reports. Severe impact on corporate governance practice have been witnessed within both US and across

the globe after the successful issuance of the Sarbanes-Oxley Act (EIRIS, 2005).

Another development relates to the OECD Principles on Corporate Governance Practice from 1996. The principles are non-binding ethics but symbolizes good practices and shared corporate governance standards. They are comprehensively adopted as a standard for regulators, formulators of policies, firms and other respective stakeholders (EIRIS, 2005). It is of the view that as codes of governance and standards progress, existing and potential investors look outside basic compliance to determine factors that lead to value creation in the long-term. Ethical management of risk, environmental and social equality outlooks, and responsibility level of corporate boards for stakeholders are now recognized to a superior extent, considering a firm's governance framework.

In the Ghanaian context, the Ghanaian corporate governance code was first introduced in 2003 by the Security and Exchange Commission - Ghana (SECG). This commission is different from that of South Africa and UK where independent committees' formation dominates the setting up of best practices on corporate governance codes. Unlike that of Ghana, the South African and UK codes have been subjected to a series of revisions to date. The Ghanaian corporate governance are rarely subject to frequent revisions. The last and recent revision was carried out by the central bank in the wake of the banking crises which manifested in 2017 and 2018. However, the prudent restructuring of the banking sectors resulted to the release of a new corporate governance code to govern the banking sector in 2018.

In line with the codes, there is a growing concern in corporate literature on corporate governance that argues that board of directors' characteristics and

ownership structure (corporate governance) are positively related to firm performance. It is highlighted in the literature that an enhance board of directors' characteristics and ownership structure lead to a more effective functioning and prudent corporate governance structure that tend to minimize or prevent firms from entering into financial distress conditions and situations.

### **Board of Directors Characteristics**

All key judgements, control over key internal governance apparatus, strategy and plan creation and supervision of corporations' administration responsibilities are principal duties of board of board of directors.

For the purpose of internal control mechanisms, board of directors denote a substantial structure of protecting stockholders and suppliers of fund interest (Ronald, 2020). Pearce and Zahra (2007) spot twofold critical duties of board of directors. Thus, first, supervising and regulating the activities of management; and second, augmenting and safeguarding progressive management and stockholders relationship. Afshan and Aza (2020) establish that, to enhance the performance of firms, board characteristics is very crucial aspect that must not be overlooked. They further argue that having the right mixture of board of directors enhances their monitoring and supervision role as well as the soundness of their policy formulation that translates into higher business performance.

Islam and Rasha (2020) posit that the effectiveness of board of directors is depend on the characteristics that they possess.

Emphasis must be made of the fact that, the characteristics of the board is an important factor for the effective performance of their responsibilities. To this regard, numerous researchers had been carried out to found the precise

blend of features that a proficient company board must have. Salloum, Azoury and Azzi (2013) posits board characteristics as the total number of non-executive directors, duality of CEO, executive directors owning shares, women directors, board size, directors over nine years of tenure and percentage of non-executive directors. Emita and Rusmin (2018) espouse board characteristics as the ratio of board independence, number of board meetings, size of the board and CEO duality.

Zhiyong et al (2020) describes board characteristics by means of the duality CEO, ratio of non-executive directors to board size, board size and woman board chairman. Likewise, Manduku et al (2020) pronounce board features with board gender multiplicity, independence of board, board size, tenure of board and board activity.

For the purpose of this study, board characteristics is define as ratio of non-executive board to board size, percentage of non-executive directors (independent directors), female board size and board size.

### **Firms' Performance**

The assessment of firms' performance can be described as annual determination of firms, departments and employees' operational efficiency and effectiveness which is centred on well-structured benchmarks, criteria, goals and objectives ( Murwaningsari, 2010). Varying models are found to be prudent in measuring firms' performance. In this study firms performance is measured by return on equity (ROE). Saidat, Silva, and Seaman (2019) adopted return on asset (ROA) and Tobi's Q as a measure of firm's performance.

On the other hand, Hassan (2013) measured firms' performance by means of dual arrays of variables. One notable performance measurement is the

accounting-based (Sami et al., 2011; Kyereboah-Coleman, 2007). This measurement comprises return on equity (ROE) which is estimated as net profit divided by total equity, while return on assets (ROA) is estimated as net profit divided by total assets (Gani & Jermias, 2006; Kholeif, 2008; Mashayekhi & Bazaz, 2008).

Gani and Jermias (2006) asserts that performance measure based on accounting phenomenon indicates a healthier image to management activities because they are under the control of management.

### **Corporate Governance and Firms Performance**

The term corporate governance encompasses various dynamic components. However in this study emphasis is placed on board of directors' characteristics (board size, independent directors, executive directors, non-executive directors and female board of directors). Nwokoma (2005) recognized that "corporate governance has been perceived and understood in a much broader spectrum, encompassing all players involved in the business, instead of restricting it only to board and executive management" Corporate governance practices (board of directors characteristics) exerts great influence on firms performance (Mohan & Chandramohan, 2018). However, mixed findings exist with regards to the effect of corporate governance on firms' performance. Firms' performance is measure by return on equity (ROE).

Hassan (2013) showed that 31 percent change in return on equity and 29 percent change in return on asset can be explained by corporate governance mechanisms adopted by firms. However, a weak and insignificant results was also obtained for market based performance measure (Tobin's Q). Stanwick and



Stanwick (2010) are also of the view that corporate governance does not significantly influence firms' financial performance.

In contrast, Qaiser (2011) examined the linkage between quality corporate governance and firms' performance. By adopting the scoring index of corporate governance and that of operating performance, they recognized positive outcomes among them.

In addition, Darweesh (2015) revealed that corporate governance has momentous part in enhancing firm's performance. The study outcome suggested that management must reflect decent and vigorous governance with regard to areas of higher board size, extreme management compensation, and smaller size of board committees to advance corporate financial performance. Also, Latif et al. (2013) argued that corporate governance and board size have significant influence on firm performance, whereas composition of board also have an insignificant influence on ROA.

Arora and Bodhanwala (2018) study the association among a corporate governance and corporate performance in India. They disclose substantial positive association among governance and corporate performance.

### **Board Characteristics on Firms' Performance**

Cooper (2015) examine the association among board characteristics and corporate performance. The results advocate that greater board size has positive effect on business performance. Nevertheless, independent board of directors does not influence business performance.

Mishra and Kapil (2018) examine the association between Indian firms' board characteristics and firm performance. They employ Tobin's Q and return on asset (ROA) as a measure of firm performance.

The results suggest that there is substantial positive relationship among board size and corporate performance. Independent board of directors is establish as having positive relation to companies' performance.

Zhou, Owusu-Ansah, and Maggina (2018) examine if board characteristics are connected with the performance of firms listed on the Athens Stock Exchange and identify that companies with bigger-sized boards experience better perform as compared to smaller size boards, nevertheless companies having higher independent board of directors poorly perform.

Petchsakulwong and Jansakul (2017) examine the effect of board of directors' characteristics on firms' profitability measured by return on total assets (ROA), return on equity (ROE). The results discovered that positive association exist among board size and the profitability (ROA and ROE). However, company size was inversely associated with profitability.

### **Board Size and Firms Performance**

Gaur, Bathula and Singh (2015) defines board size as the total number of directors that makes up a company's board. Singh and Delios (2017) and Piepenbrink and Gaur (2013) identify them as monitors and advisors of the company. Up to date, there is no consensus on the optimal size of companies' board of directors and also the impact of size of a firm's board on its performance.

Whereas, some studies argue in favour of larger board size and its efficacy on supervision and monitoring of influential managements, others are of contrary views. They argued that larger board size contributes to board cost and boardroom quarrels (Ujunwa 2012).

The number of people on corporate boards is key to corporate governance and its impact on firms' performance. While some scholars hold that firms' effectiveness increases as a consequence of growth in board size, others maintained that board size leads to reduction in firms' effectiveness. For instance, Samuel (2013), Obradovich (2013) and O'Connell & Cramer (2010) found a negative relationship between firms' performance and board size. Additionally, Mohan & Chandramohan (2018) identified a significantly negative relationship between board size and firms performance (ROE). However, they further noticed that the significance of board size to firms' performance (ROE) is industry specific.

Saidat, Silva, and Seaman (2019) investigated the relationship between corporate governance and firms performance, with respect to Jordanian family and non-family firms and identified statistically negative significance between board size and firms performance (Return on Assets). This result was in line with study's hypothesis that firm's board size and firm's performance have a negative relationship. Similarly, Ibrahim and Samad (2011) as well as Bennedsen, Kongsted and Nielsen (2008) had found that negatively significant relationship exists between board size and firms performance.

Tobin's Q a measure of firms' performance also show a similar results between board size and firms performance (a significantly negative relationship exist between them). In relation to non-family business, however, there was no significant connection between board size and firms performance. Thus, both performance measures (return on assets [ROA] and Tobin's Q) were all insignificant in terms their relationship with firms' board size. Fan and Qigeng

(2019) finding establish that board size significantly positively related to return on assets (ROA).

Although, Hassan (2013) recognized an inversely significant connection between board size and return on assets (ROA) and return on equity (ROE) at 5 percent significant level, his study did not stipulate the direction of the association between board size and firms' performance. Hence, the reported results suggested that companies' performance, assessed by accounting-based measures, decreases when there is an increase in the firm's board size. Several authors (Bhagat & Black, 2002; Kyereboah-Coleman, 2007; El Mir & Seboui, 2008; and Mishra et al., 2001) share the same view that lesser board size facilitates more quicker decision making as compared to large board size and serves as guiding role, as larger board size lacks candid collaboration and less probable to be involved in tactical decision making (Lipton and Lorsch, 1992).

Conversely, Aljifri and Moustafa (2007) are opposed to this assertion. They argued that variance in the outcome might be accredited to the variances in size of sampling, years covered or variance in performance measures adopted. Correspondingly, Haniffa and Hudaib (2006) established that board size has a significant connection with both market and accounting measure for performance. Saidat et al. (2019) also recognised a significant relation between financial performance and board size.

### **Independent and Non-Executive Directors and Firms Performance**

The influence exerted by independent board of directors on corporate performance still remains a bone of contention policy makers and scholars (Nur, Jessica and Sanjaya, 2018). Singh and Delios (2017) asserts that conflicting findings, thus, negative and positive have being identify by varying studies

depending upon the theory (agency, stewardship, resource dependency among others) that their studies are based upon. The champions of stewardship theory (Boyd 1995; Charan 1998) contend that executive directors on corporate boards minimizes the likelihood of conflict on boards and enhances the decision making procedures. They further argued that executive directors have in-depth knowledge about the strength, weakens, opportunities and threats relating the operations of the business as compared to non-executive directors. This contributes to the provision of strategic direction for the company. Contrary, advocates of agency theory make claims that are in support of independent directors. They argue from the perspective of performance supervision and managerial monitoring and how effective these constructs will be undertaking depends on how directors are free from managerial influence (Gaur, Bathula and Singh, 2015; Bertoni, Meoli and Vismara, 2014). Hence, independent directors remains most appropriate to execute this task than executive directors.

Board composition is recognised as having a significant impact on firms' performance (ROE and ROA). Usually independent and non-executive directors (board composition) are used as a mediator to resolve agency problems. The involvement of non-executive and independent directors is intended to boost the capability of the entity in protecting itself against pressures from the business setting and bring in line the organization's resources for superior advantage. Nevertheless, studies relating to the impact of non-executive and independent directors on firms' performance are many, but with diversified results.

Few researchers have reported of a negative relationship between non-executive/independent directors and firms' performance (Wen et al., 2002). Besides, a limited number of researchers have established a positive relationship between non-executive/independent directors and firms' performance (Brickley et al., 1994). Also, Mohan & Chandramohan (2018) established no significant relationship between non-executive/independent directors and firms' performance (ROE and ROA). Moreover, some studies have suggested that a higher number of non-executive/independent directors are required to result in corporate boards pursuing less financial leverage with greater market value of equity (Baysinger & Butler, 1985).

Ciftci, Tatoglu, Demirbag, and Zaim (2019) found that non-executive directors' inclusion on corporate boards could permit the mix of renewed thoughts in entities decision.

Independent directors works to reconcile skirmishes among minority and majority shareholders and sort to make management extra vigorous through improved monitoring, which tends to enhance the performance of the firm (De Andres et al., 2005).

Saidat et al. (2019) have identified non-executive directors (independent) as possessing significant negative relationship with firm's performance (Tobin's Q) with respect to family businesses. Their justification of this findings was based on the fact that firms with relatively large independent non-executive directors are highly probable to witness low performance due to their non-familiarity with firms' operational activities. Their part-time nature of working relations with the firm make them not entirely and completely understanding the difficulties and complications encountered by the firm. In

addition, they identified lack relevant working experience skills by independent non-executive directors as a reason for the low performance. Because most of these directors are appointed based on the level of friendship and connections they have with the members of the family-own-businesses. However, with respect to the measure of performance by return on asset (ROA), no significant relationship was established between it and independent non-executive directors for family businesses. Yet, a highly positive significant relationship was establish between independent non-executive directors and firms performance (ROA and Tobin's Q) specifically for non-family business (Saidat et al., 2019).

Rahman, Ibrahim and Ahmad (2015) conduct a study on 300 companies listed on the Malaysian stock exchange.

He adopts return on equity and earning per share as a measure of companies performance. The stockholder confidence in the company is also assessed by the stock price. The findings reveal that the presence of independent directors enhances the performance of the company as well as the confidence of the stockholders.

Lan and Wang (2010) study on listed companies in Anhui Province in China suggests that increasing the proportion of the directors that are independent leads to decline performance. They hold a contrary view to the position that the presence of independent board of directors in itself guarantees an enhance firms' performance.

Fan and Qigeng (2019) analyze commercial banks in China performance in relation to board of directors' characteristics. Their study was based on 16 commercial banks. They employ both qualitative and quantitative method in

establishing such a relationship. Likewise, the proportion of independent directors is positively related to firms' performance.

Arslan, Karan, and Eksi (2010) examines board independence on firms' performance. Their findings shows that independent board of directors is identify as having no significant impact on firms' performance, however the stock market recognizes independent board of directors as having favorable impact on the market.

### **Female Board of Directors and Firms Performance**

The effect of females' board of directors on financial performance of entities has become a special topic for discussion.

A corporate board makes chief decisions on behalf of the organization. Presumably, it is advantageous to have both females and males on firms' board because each gender possess certain natural ability sets and features that contribute to decision-making. In this regard, Norway took the lead to promulgate gender-balancing quota for public companies boards, and nine countries followed subsequently (Adams, 2016). Some studies (Eagly, 2016; Kirsch, 2018; Terjesen & Sealy, 2016) have supported the leveraging on gender-balancing quotas, indicating that companies with high gender diverse board of directors tend to perform better than their prospective companies with lesser gender diverse board of directors. However, other studies have provided varied results on effect of female inclusion in corporate boards on firms' performance, predicting negative, positive and no effects on performance (Kirsch, 2018; Pletzer, Nikolova, Kedzior, & Voelpel, 2015; Post & Byron, 2015).

Yang, Riepe, Moser, Pull, and Terjesen (2019) reports gender-balancing quota adversely affects firms' performance. This finding reveals a negatively



significant influence on performance based on accounting measure, i.e., return on assets. Similarly, Mogbogu (2016) found an inverse relationship between diverse gender board of directors and firms' performance. However, Kristanti, Rahayu and Huda (2016) studied the causes of distress among firms as to whether gender diverse board is adversely connected to the possibility of financial distress. They found female members on firms' board helped in minimizing the issue of financial distress.

This result corroborated the report of Credit Suisse (2012) which revealed that investors were comfortable with investing in firms with diverse gender board of directors. In a similar way, research (Haldar, Shah, Rao & Bombay, 2014; Herdhayinta, 2014; Noland, Moran & Kotschwar, 2016; Sanan, 2016; Smith, Smith & Verner, 2006; and Shahwan, 2015) had reported a positive influence of gender diverse board on financial performance of firms.

On the contrary, other findings (Al-Mamun, Yasser, Entebang, Nathan and Rahman, 2013; Salloum and Azoury, 2012) suggested non-substantiated influence of gender diversity on corporate boards on financial performance of firms. Fan and Qigeng (2019) recognized that the inclusion of female board of directors does have any effect of firms' performance.

### **Size of a Firm and Firms Performance**

Firm size has been adopted by numerous empirical research (Boone et al., 2007; Segarra & Teruel, 2007). These studies affirm the fact that businesses performance could differ subject to the size of the business. Relating to entity size, an upsurge in business asset base could result in an enhanced performance and this could be attainable only if the firm makes optimum use of its assets. This positive association proposes that bigger companies may benefit from

economies of scale and scope than small ones. (Hassan, 2013; Joh, 2003; Kyereboah-Coleman, 2007). The size of a firm has a positive significant association with ROA in non-family businesses (Saidat et al., 2019). However, regarding family firms, the firm size has an insignificant relationship with ROA and Tobin's Q.

In contrast to the positive effect of firms' size on performance, Aljifri and Moustafa (2007), and Ghazali (2010) held that firms' size does not impact significantly on its performance.

Watts and Zimmerman (1986) described firms' size and firms' performance relationship using the political cost theory. The theory states that the larger the firm the further or more political pressure it faces, in turn, larger organizations' that realize greater performance that match their respective size try to prevent political interference by means of new government regulations. Although, Bokpin (2013) identified bank's size as immaterial to profit efficiency and cost efficiency of a bank, positive connection is stated in both situations. Nevertheless, size matters in explaining profitability. Hence, he identified statistically positive association between size and bank profitability.

### **Theoretical Framework**

Varying theories have been outlined to clarify corporate governance. Explicitly, in this study, agency theory, resource dependency and stewardship theory are covered.

#### **Agency Theory**

Agency theory argues that effective corporate governance is linked to companies' performance (Singh and Gaur, 2013). The theory further states the

board are much concern about their personal needs as compared to the interest of the stockholders.

Therefore, it is important to supervise and control the board of directors to minimize the conflict of interest and guarantee that managers act in the interest of owners (Gaur et al. 2014).

Big organisations offers management the means to pursue their selfish interest before the owners' interest where separation between ownership and control of organisation exist (Berle and Means, 1932). This situation that owners found themselves in is termed as agency problem. Daily, Dalton & Cannella (2003) found that a significant agency theory impression is that “there is a great tendency for humans to be more passionate in meeting their own ambitions and desires and will not be willing to lose their personal desires for the interests of other”. In our world today, the key challenge corporations face with regards to agency problem is the separation between finance and administration. The implication of this is that if corporate board of directors or managements are bonded, they work in almost interest of owners and not themselves. Corporations currently suffer from agency problem and they are thereby guided by professionals' agents who cannot be held liable by misplaced owners. Now the question that comes to mind is how best can assurance be made that management follows shareholder interest to minimize the cost that come along with agency theory?

Jensen (2014) outlined agency relationship as “a contract under which one or more principal hire another person (agent) to perform some services on their behalf, involving delegating some decision-making authority to the agent.”

Inference from this definition brings to light that there exist conflict of interest between controlling shareholders and non-controlling shareholders, resulting in a tendency where the controlling shareholders derive indirect benefits of organisations resources and to be less attentive in seeking new benefit cost agency through monitoring via auditing, budgeting, checking and clearing the agent bond and residual loss due to divergence interests between principal and agent. The share price paid by the shareholders reflects such agency fees. To ensure maximization of the value of the organisation, it is important to minimize agency cost and the key basic questions to address is to solve the opportunistic attitude of executives within the agency theory: what should be the composition of the board of directors? The board of directors should be made of numerous non-executive directors for effective control.

### **Resource Dependency Theory**

The resource dependency theory proposes that organisations strides on the environment and other firms for required resources (Pfeffer and Salancik, 1978). Pfeffer (1978) suggested that organisations are constrained by a network of independencies, organisations are required to manage these networks of interdependencies. This theory defines corporate governance as a set of mechanisms that safeguard efficient management of the network of interdependencies and access to scarce resources and their management (Zahra and Pearce, 1989).

The theory asserts that organisations should appoint board of directors with pertinent experience, skills and knowledge so that they can: offer counsel and direction to management in setting effective policies and strategies for the organisation; guarantee access to scarce resources; ensure access to channels of

information between and its environmental contingencies and maximize legitimacy (Cohen, 2012).

This assertion is buttressed by current findings from empirical indications that corporation takes into consideration contingencies within the environment when appointing board of directors (Hillman et al., 2008). UK Corporate Governance code (2012) proposed organisations should appoint board of directors with adequate independence and experience. This is in line with resource dependency theory, since board of directors with adequate experience and independence is a resource to the entity. Nevertheless, appointing board of directors based on experience only may not ensure compliance with relevant corporate governance code if such experience board of directors are not independent. Available literature suggest that there is mixed findings when it comes to impact of expertise and experience of the board of directors on firms' performance. In the wake of this conflicting findings, Christopher (2010) contended that prescriptions of resource dependency theory need to be acknowledged in prescribing board size and composition and selection of senior management of organisations in an attempt to augment the effectiveness corporate Governance.

Diverse scholars employed resource dependency theory to argue that the increasing sophistication today's business environment requires leadership from diverse group of individuals who can offer broader set of resources that best fit the novel business culture. Stiles (2001) proposed that diversity of corporates' board may ensure easy access to resource significant to the organisation. The diversity required includes age, gender and nationality, which can positively impact on organisations' performance. Randoy, Thomsen &

Oxelheim (2006) suggested that females are accountable for seventy percent (70%) of worldwide consumer spending. Considering this, inclusion of females in management and board of directors' positions may offer an extensive insights into customer wants, which could result to increase in market share through innovative products or services that better meets the needs of consumers. Resources dependency concludes that highly performing management team are those with diversity in terms age, experience, gender, working background and ethnicity.

### **Stewardship Theory**

Hernandez (2008) asserted that contrary to agency theory, stewardship presumes that managers are honest. Sundaramurthy & Lewis (2003) suggested that managements are motivated predominantly by intrinsic incentive and are self-inspired to increase collective interest (Nicholson & Kiel, 2007; Wasserman, 2006). This theory maintains that monitoring may be counterproductive since monitoring actions inversely affect the inspiration of managers to perform pro-actively (Hernandez, 2012).

Stewardship theory proposed that corporate governance is meant for the maintenance of structures that assist efficient and effective management decision making process (Davies et al., 1997). In line statement aforementioned, steward theory argued for the inclusion of more inside directors on corporate boards (Kiel and Nichoson, 2003; Sundaramurthy & Lewis, 2003).

Quite a number of research had opposed stewardship theory-centred board of directors. They argued that is more appropriate if ownership is concentrated and the major owners represent the firms' management (Chin & Casey, 2004; Huse, 2000). Emphasis must be made that definition of

stewardship (O'Connell, 2007) and the effect of intrinsic versus extrinsic incentives on managements' motivation (Huang & Van, 2003) differ across country.

### **Analysis of Theory**

The multiplicity of empirical findings echoes these theoretic literature into resource dependence (Pfeffer & Salancik, 1978) and agency theory (Jensen & Meckling, 1976) both are of the view that corporate boards with female representation may perform better. However, theory of stereotyping gender in relation to investors (Haslam, Ryan, Kulich, Trojanowski, & Atkins, 2009) and incongruity role theory (Eagly & Karau, 2002) predicts that an inverse (negative) relationship exist between firms' performance and female board of directors when market measurement basis are used as performance measure.

In the wake all this indecisive pragmatic outcomes and the nonexistence of all-inclusive theory which unambiguously theorizes a concise, clear and exact association between women directors and firm performance within presumed boundaries (Durand & Vaara, 2009), numerous examinations and meta-analyses with the objective of providing clearness to the incongruent results. Post and Byron's (2015) meta-analysis predicts that the association between women directors and firm performance hinge on on the choice of performance measures (accounting versus market-based) and country gender parities.

Prevailing reviews and meta-analyses miscarry to differentiate among empirical researches that are simply correlational in nature and those that try to address the endogeneity problem inherent in the data. Since the incidence of female directors do not result from exogenous variation, nevertheless somewhat

from firm- and self-selection, it is important to account for endogeneity when estimating the effects of women directors on firm performance (Adams, 2016; Brinkhuis & Scholtens, 2018).

### **Chapter Summary**

Substantial literature (Ciftci et al., 2019; Hassan, 2013; Kirsch, 2018; Saidat et al., 2019; Segarra and Teruel, 2007) predominantly in Europe and developed economies have supported the notion that corporate governance is key determinants of firms' performance. Obradovich (2013) and Saidat et al. (2019) found an inverse significant relationship between board size and firms' performance. Wen et al. (2002) and Saidat et al. (2019) established significant relationship between independent/non-executive directors and firms' performance. However, while an inverse relationship was established by Wen et al. (2002), a positive relationship was also established by Saidat et al. (2019). Yang et al. (2019) and Mogbogu (2016) found a significant inverse relationship between female board size and firm's performance. On the contrary, other equally important literature (Al-Mamum et al., 2013; Stanwick and Stanwick, 2010) also suggest no significant relationship between corporate governance variables and firms performance. Precisely, no significant relationship was established between female board of directors and firms' performance by Al-Mamun et al. (2013) and Salloum & Azoury (2012). Also, Mohan & Chandramohan (2018) found no significant connection between non-executive/independent directors and firms' performance.



## **CHAPTER THREE**

### **RESEARCH METHODS**

#### **Introduction**

This chapter covers the methodology employed for the study. Research design, area of the study, population of the study, procedure for sampling, instruments used in data collection, procedure for data collection, processing and analysis of data and the complete summary of the chapter are considered under this particular section. Similarly, statistical techniques employed in analysis of data are also specified in this segment.

#### **Research Design**

A descriptive research design is adopted to establish the profitability trend and board characteristics of listed banks in Ghana. The rationale for adopting a descriptive research design is because it provides a means of accurately and systematically describing a population, situation or phenomenon. Also, this study is a quantitative research. Mean descriptive statistics, minimum and maximum statistics were used.

Also, explanatory research design is used in explaining the effect of board characteristics on listed banks performance. This method of research design is employed to offer clarity in explaining how the characteristics of the board of directors impact on the performance banks.

In establishing the effect of board characteristics on listed banks performance panel data regression analysis was employed.

This regression method was employed to detect the behaviour of listed banks in relation to their board characteristics and performance over a period of time (thus, 2010 – 2017). This method of analysis permits the control of

variables that cannot be observed or changes overtime but which are limited to specific entities and not the entire entities used for a particular study. In this regard both the fixed-effect and random-effect estimation technique were employed. However, Hausman Test was used to select between the fixed-effect estimation and the random-effect estimation the one the best fit for the data set and its analysis. In view of this the statistical significance for model selection based on the Hausman Test was pegged at 5 percent (0.05).

The study was purely quantitative research. The choice of quantitative research was grounded on the fact that the data set used for the study was purely financial data which are numeric in nature.

### **Study Area**

The study entails the eleven (11) commercial banks and four (4) representative banks in Ghana that still operate within the Bank of Ghana Recapitalisation process for banks in Ghana in 2017. Other banks that have collapsed or have been liquidated prior to and after the Bank of Ghana Recapitalisation in 2017 are excluded from the study population. This was due to data availability issue and availability of audited financial reports covering the periods under consideration.

### **Sampling Procedure**

All listed banks that operated in the period of 2010 to 2017 were included in the study. They all reported mostly all the variables used in measuring board characteristics and bank performance. Hence, no sampling method was required for the purpose of this study.

The listed banks whose financial data and corporate governance data were used for the study are outlined in the table below:

**Table 1: Sampling Procedure**

Number	Name of Bank
1	Access Bank Ghana
2	Agricultural Development Bank
3	CAL Bank Limited
4	Ecobank Ghana Limited
5	Societe Generale Ghana
6	UT Bank
7	Standard Chartered Bank
8	Trust Bank
9	Ghana commercial bank
10	Energy Commercial Bank Limited
11	HFC Bank

Source: Adopted from Ghana Stock Exchange

### **Data Collection Instrument**

Secondary data were used for the study due to financial nature of the data contained in the listed banks annual report. The data employed for the study covers a period of 8 years (2010 – 2017). The study choice for the period of 2010 -2017 is for the data to reflect all turbulent banking and economic crises the banking industry had been poised to in relation to these periods. These are financial data covering return on asset (ROA), return on equity (ROE), bank size (total assets) were collected from the company's financial statement and PricewaterhouseCoopers banking survey reports covering the period under consideration. The non-financial data, were however numerical in nature such as, board size, non-executive directors, executive directors and female board of

directors were also collected from the corporate governance report of the 11 sampled banks. These data were pooled together in an unbalanced panel data due to the non-existence of some of the listed banks under certain period of time (they were not yet incorporated in Ghana). This unbalanced panel data were extracted through the use of Microsoft Excel spreadsheet.

### **Data Collection Procedures**

A balance panel data was constructed using Microsoft Excel covering all the key variables under consideration (board size, non-executive board, board independence, female board of directors, bank size, bank age, return on asset and return on equity).

Then, data covering those variables were extracted from the company's annual reports (financial statement and corporate governance report) and PWC banking survey reports for the periods under consideration.

The key barrier in the data collection stage was data unavailability especially on the board of directors' characteristics variables. As a result, the study would not include board meetings, board expertise in finance, and average board age among others.

### **Variables**

Two models are adopted to establish the relationship between board of directors' characteristics (independent directors, board size and female board of directors) and firms' performance. All were based on panel regression analysis (both fixed and random effect). In Model 1 independent directors, board size and female board of directors are linked to return on equity (ROE) as the dependent variable. However, in Model 2 independent directors, board size and

female board of directors are linked to return on assets (ROA) to establish their relationship.

This study grouped the variables into three categories: independent variables, dependent variables and control variables.

### **Independent variables**

The independent variables in the study comprised independent board of directors, board size and female board of directors. Independent board of directors concerned the number of non-executive directors as a ratio of board size.

Board size was the number of members on the board. Finally, female board size relates to ratio of the number of females on the board to board size.

### **Dependent variables**

The dependent variables for this study were mainly two: return on asset (ROA) and return on equity (ROE)

### **Control variables**

Bank size (Total assets) and bank age were used as the control variables for this study. Based on the premise that firms with large assets tend to perform better as compared with firms with relatively lower assets. Again, firms that have operated longer in the system tends to perform better due to knowledge of their business environment.

### **Data Processing and Analysis**

Financial performances of listed banks were assessed using return on asset (ROA) and return on equity (ROE). Microsoft Excel was used to develop a trend analysis in examining the overall financial performance of these listed banks.

Board of directors' characteristics of these listed banks were examined using independent board of directors, board size and female board of directors. Control variables such as bank size (total assets) and bank age. Further, using Stata, a panel regression analysis was used to establish effects of board of directors (independent board of directors, board size and female board of directors) on listed banks performance (return on asset [ROA] and return on equity [ROE]). Both fixed and random effect model were used. However, Hausman test was conducted to select the most appropriate model (thus, the fixed effect).

Also, correlation matrix analysis were also used to establish the extent to which the independent variables correlates among each other. Then, descriptive statistics using means was developed for the variables in the study.

### **Model Specification**

In making estimation for the model specification, prior literature such as Fan and Qigeng (2019), Yang, Riepe, Moser, Pull, and Terjesen (2019), Nur, Jessica and Sanjaya (2018) and Saidat et al., (2019) were reviewed. Modifications were made to suite the data set available for this particular study. The resulting pannel data regression model was outline as follows:

#### **Model 1**

$$ROE = \beta_0 + \beta_3 BODINPN + \beta_5 FBODSIZ + \beta_4 BODSIZE + \beta_7 BANKSIZE + \beta_8 BANKAGE + E.$$

#### **Model 2**

$$ROA = \beta_0 + \beta_3 BODINPN + \beta_5 FBODSIZ + \beta_4 BODSIZE + \beta_7 BANKSIZE + \beta_8 BANKAGE + E.$$

### **Meaning of Variables**

ROE = Return on Equity

ROA = Return on Assets

BODINPN = Board Independence (measured as ratio of non-executive directors to board size)

FBODSIZE = Female Board size (measured as ratio number of female directors to board size)

BODSIZE = Board Size (measured as total number of directors on the board)

BANKSIZE = Bank Size (measured as total assets of the bank)

BANKAGE = Bank Age (Number of years of operations)

E = Error term

### **Ethical Consideration**

The thesis conforms to all ethical guidelines relating to social science research. The data set used represent the through reflection of the financial performance and board characteristics of the listed banks covered. Under no condition were the data set adjusted to reflect the researcher view point.

### **Chapter Summary**

This study adopted quantitative data analysis in examining corporate governance and firms' performance among listed banks in Ghana. Panel Time Series models (model 1 and model 2) were developed for the study. A total of 11 listed banks were sampled for the study. The data gathered for the analysis covered a period of 8 years (2010 – 2018). These secondary data were used for the study. Moreover, a balanced panel data were constructed for the data gathering and analysis was done with the help of SPSS.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### Introduction

This chapter has two sections. The first section is devoted to presentation of results drawn from the data gathered for the purpose of the study. The second section deals with discussions of the results in relation to the research questions and prior studies.

#### Results

First, the descriptive statistics and the multicollinearity test results are outlined. Afterwards, the main results emanating from the study are outline below. The results are organised according to the research objectives: profitability trend of listed banks, board characteristics of listed banks and effect of board characteristics on listed banks performance.

#### Descriptive Characteristics

**Table 2: Summarize Descriptive Statistics on BODSIZ BODINDP  
FBODSIZE BANKAGE Total Assets, ROE and ROA**

Variable	Obs	Mean	Std. Dev.	Min	Max
BODINDP	84	0.7	0.1	0.3	1
FBSIZE	84	0.2	0.1	0.0	0.4
BODSIZ	84	9.0	1.6	6.0	12
BANKAGE	84	35.2	31.5	0.0	121
TotalsAssets	84	2,669,311	2,336,200	196,784	13,075,497
ROE	84	19.2	14.8	-27.4	49.1
ROA	84	3.0	2.1	-3.7	7

Source: Field data (2020)



The descriptive statistics results outline in tables 2 after studying a total of 84 observations reveals that board independence (BODINDP) for listed banks average is 0.7 and also on the average they have a minimum board independence ratio of 0.3 and maximum of 1. The average number of female board of directors size (FBSIZE) is 0.2. Thus, a minimum female board size of 0.0 and a maximum of 0.4. The average board size (BODSIZ) is 9. A minimum board size of 6 members and maximum of 12 is also identified. In addition the average age for the banks (BANKAGE) is 35.2 years, however they have a minimum 0 years and maximum of 121 years. Also, on an average the banks have a total asset of GH¢2,669,311. The minimum total assets recorded is 196,784 and the maximum is also 13,075,497. Emphasis must be made the total assets are expressed in thousands. Furthermore, the return on equity (ROE) for banks recorded a mean of 19.2%. However, the minimum return on equity recorded is -27.4% and the maximum is also 49.1%. Lastly, a mean of 3.0% is recorded for return on assets (ROA). The minimum value recorded for return on assets is -3.7% and the maximum of 7% is also achieved.

### **Multicollinearity Test**

**Table 3: Correlation Matrix BODSIZ BODINDP FBODSIZE BANKAGE**

#### **Total Assets**

Variables	BODINDP	FBODSIZE	BODSIZ	BANKAGE	TotalAssets
BODINDP	1				
FBODSIZE	0.013	1			
BODSIZ	0.044	-0.250	1		
BANKAGE	-0.177	0.257	-0.117	1	
TotalAssets	0.183	0.234	0.077	0.355	1

Source: Field data (2020)

The results from table 3 outline the correlation between the independent variables adopted for the study. The findings depicts that no significant correlation exist between Board independence (**BODINDP**) and Female Board Size (**FBODSIZE**), Female Board Size (**FBODSIZE**) and Board size (**BODSIZ**), Board Size (**BODSIZ**) and Bank Age (**BANKAGE**), Bank Age (**BANKAGE**) and Total Assets (**TotalAssets**) among others. The highest correlation co-efficient is 0.335 as compared to the lowest of 0.013. This clearly shows that multicollinearity is not a problem among the independent variables. This because none of the correlation co-efficient exceeds 0.70 (Carsten, 2012.pg.27).

**Research Question 1: What are the Performance (Profitability) Trends of Listed Banks in Ghana?**

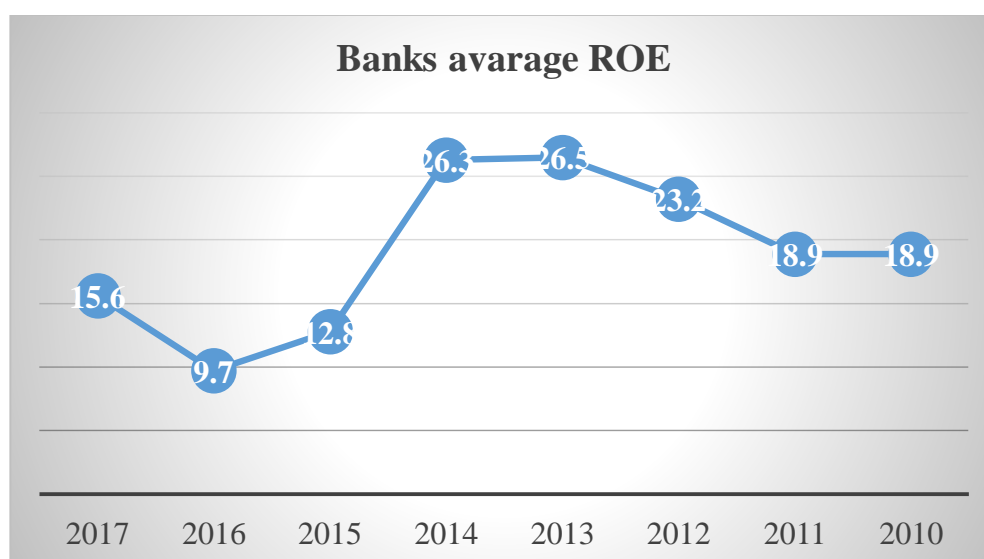
**Table 4: Return on Equity Performance Trend of Listed Banks in Ghana**

N/A	BANK	2017	2016	2015	2014	2013	2012	2011	2010
1	ACCESS	6.3	9.8	22.4	29.4	21.1	20.4	8.6	9.6
2	ADB	5.5	-15.4	-23.7	13.9	28.7	13.5	19.1	10.4
3	CAL	22.4	1.4	31.6	35.8	32.6	24.3	19.7	11.5
4	EGH	24.9	34.2	37.2	39.5	33.4	31.4	27.9	26.8
5	SOGEGH	17.4	19.2	16.9	22.4	18.8	17.8	15.2	16.7
6	UT	NIL	NIL	NIL	7.9	7.6	16.3	21.3	19.4
7	SCB	30.8	29.3	11.9	39.4	42.7	43.8	33.4	36.8
8	TB	12	15.1	21.7	35.2	31.1	19.3	34.3	24
9	GCB	19.1	29.5	30	40.9	45.3	49.1	9.8	22.6
10	ECB	1.2	0.9	2	1.5	7.9	8.9	5.7	NIL
11	HFC	16.3	-27.4	-21.8	23	22.8	10.2	13.4	10.9
Industrial Average		15.6	9.7	12.8	26.3	26.5	23.2	18.9	18.9

Source: Field data (2020)

The table 4 and Figure 1 above outlines the return on equity for the 11 banks adopted for the study. The industrial average for return on equity (ROE) for the 11 banks included in study remain constant in the period of 2011 and 2012 both recording 18.9 percent. However, 2012 and 2013 recognised a rise in return on equity, thus from 18.9 in 2011 to 23.2 in 2012 representing 23 percent increase. It further increased 26.5 percent in 2013 indicating a growth of 14 percent. However, there was a slight decline in return on equity by 0.8 percent in 2014. Thus, it decrease to 26.3 percent.

Conversely in the year of 2015 and 2016 return on equity witnessed a sharp decline to 12.8 percent and 9.7 percent respectively. This represent a sharp decrease by 51 percent comparing 2014 and 2015 return on equity results. Convincingly, the 2017 results on return on equity (15.6 percent) showed an increase as compared to the 2016 figure of 9.7 percent.



*Figure 1: Listed Banks Average Return on Equity (ROE)*

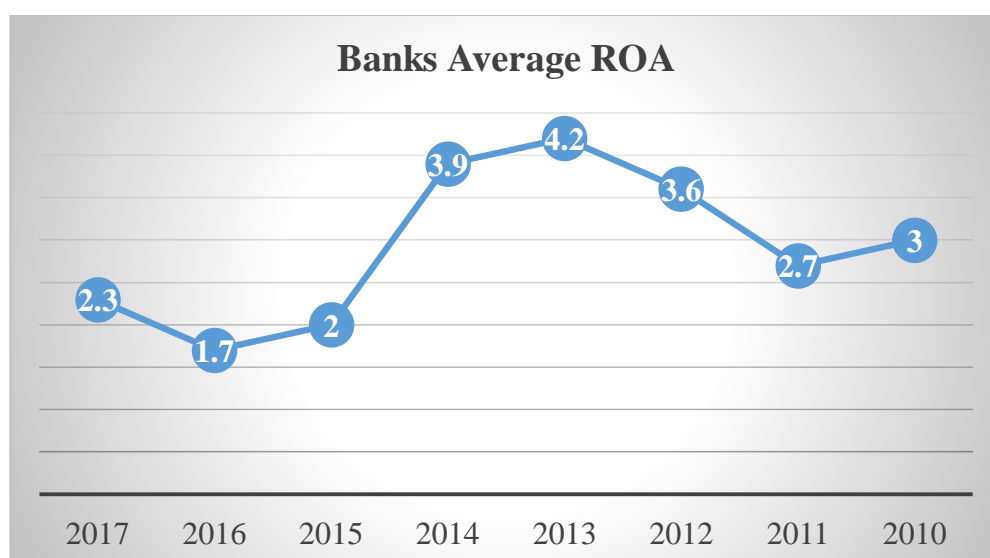
Source: Field data (2020)

**Table 5: Return on Assets (ROA) Performance of Listed Banks in Ghana**

N/A	BANKS	2017	2016	2015	2014	2013	2012	2011	2010
1	ACCESS	0.9	1.6	3.3	5	4.6	4.3	3	6.1
2	ADB	0.7	-2.3	-3.7	2.2	5	1.8	2.8	1.8
3	CAL	3.4	0.2	4.8	5.2	5.9	4.3	2.3	1.8
4	EGH	2.8	4.1	5	5.5	4	4.2	3.3	3.9
5	SOEGEH	3.2	2.6	2.2	3	3	2.8	2.7	2.8
6	UT	NIL	NIL	NIL	0.7	0.7	2.1	1.8	1.9
7	SCB	5.9	5.1	2	5.9	7	5.7	3.9	4.3
8	TB	2	2.2	3.5	4.8	4	3.7	4.1	3.1
9	GCB	2.2	4.9	5.3	6.4	6	4.7	0.7	2.6
10	ECB	0.2	0.2	0.4	0.3	2.3	3.4	2.5	NIL
11	HFC	1.8	-2.1	-2.5	4.1	3.7	2.2	2.3	2.1
Industrial Average		2.3	1.7	2.0	3.9	4.2	3.6	2.7	3.0

Source: Field data (2020)

The table 5 and Figure 2 above outlines the return on assets for the 11 banks adopted for the study. The results shows that the return on assets (ROA) recognised a slight reduction to 2.7 percent in 2011 as compared to the results of 3.0 percent in 2010. This represent a 10 percent reduction. The return on assets (ROA) witnessed a growth of 33 percent in 2012 (3.6 percent). It further rise to 4.2 percent in 2013. However, 2014, 2015 and 2016 year of assessment recorded a continuous decline from 3.9 percent to 2.0 percent and further to 1.7 percent respectively. There was a sign of relief in 2017 which showed an increase in return on asset to 2.3 percent as compared to 1.7 percent in 2016 representing a growth of 35 percent.



*Figure 2: Listed Banks Average Return on Assets (ROA)*

Source: Adopted from Ghana Stock Exchange Data/Annual Reports (2010 – 2017).

**Research Question 2: What are the Board Characteristics of Listed Banks in Ghana?**

**Table 6: Board Characteristics of Listed Banks in Ghana**

Variable	Obs	Mean	Std. Dev.	Min	Max
EXEBOD	84	2.500	1.125	1.000	6.000
NONEXEBOD	84	6.583	1.637	3.000	9.000
BODINDP	84	0.727	0.129	0.333	1.000
FBODSIZE	84	1.548	0.870	0.000	4.000
BODSIZ	84	9.048	1.582	6.000	12.000
EBODSIZ-Ratio	84	0.278	0.126	0.100	0.667
NEBODSIZ-Ratio	84	0.727	0.129	0.333	1.000
FBSIZE-Ratio	84	0.175	0.098	0.000	0.375

Source: Field data (2020)

Findings from Table 6 outline the board characteristics of listed banks in Ghana. The findings show that executive directors (EXEBOD) reports a mean of 2.500. This suggests that on an average there are 3 executive board of directors on the board of listed banks in Ghana. The minimum executive board of directors is 1 and the maximum is 6. Non-executive board of directors (NONEXEBOD) records a mean of 6.583. This indicates that on average 7 members of the board of directors are non-executives. The minimum number of non-executive directors on listed banks in Ghana are 3 and the maximum is 9.

Board independence (BODINPN) records a mean statistics of 0.727. This is an indication that 72.7% of the board of directors of listed banks are

independent. Some of the listed banks have as low as 33.3% of their board of directors as independent as well as others have all their members of the board being independent. Female board size (FBODSIZE) has a mean 1.548. This suggest that the average number female board of directors represented listed banks board is 2. Some listed banks have none of their board member being female whereas others have a maximum of 4 female directors. Board size (BODSIZ) records a statistical mean of 9.048. This means that on average the number of board of directors of listed banks is 9. The minimum board size is 6 and the maximum board size is 12. The ratio of executive board to total board size (EBODSIZ-Ratio) has a mean of 0.278. This suggests that majority of the listed banks have their board being represented by 27.8% executive board of directors. The minimum executive board member is 10% and the maximum of 66.7%. The ratio of non-executive board of directors to total board size (NEBODSIZ-Ratio) records a mean of 0.727. This indicates that 72.7% of listed banks board are non-executive board of directors. The minimum number of non-executive directors is 33.3% whereas the maximum number of non-executive number of directors is 100%. The ratio of female board size to total board size (FBSIZE-Ratio) reports a mean of 17.5%. This indicates that 17.5% of listed banks in Ghana board of directors are females. The minimum ratio of female directors is 0.00 (0.0%) and the maximum ratio is 0.375 (37.5%).

In summary, majority of listed banks in Ghana are dominated by non-executive directors representing 72.7% of the total board size.

This is an indication that majority of the board of directors are independent of the executive directors and organization as a whole. This is because they are not employees of the company. There are representation of



female directors of listed banks board, representing 17.5%. On an average listed banks have 9 members on their board. This is an old number that enhances decision making processes. It can also be noted that the number of executive directors are minimal as compared to non-executive directors.

### **Research Question 3: What are the Effect of Board Characteristics on Listed Banks' Performance?**

For the purpose of establishing the effect of board of directors' characteristics on listed banks performance, board independence, ratio of female board size to total assets and board size are adopted as the variables for measuring board characteristics. These variables are regarded as the independent variables for the study. Preliminary multicollinearity test run influenced the decision to exclude number of executive directors and non-executive directors from the model for the panel regression analysis. There were high correlation co-efficient between non-executive board of directors and board independence.

Since the data set used for the analysis was a panel data, both fixed-effects estimation and random-effect estimation. The Hausman test is used to select between the fixed-effects estimation and the random effects estimation.

Hausman test is run based on a null hypothesis that, if its p. value is lesser than 0.05 (5 percent), then the fixed-effect model should be the appropriate model to test the effect or relationship between the dependent variable and independent variables. On the contrary if the Hausman test p. value exceeds 0.05 (5%) then, the alternate hypothesis is adopted. Thus, random-effect estimation is seen as the appropriate mode for establishing the effect of the independent variables on the dependent variable.

## Fixed Effect Regression Results

**Table 7: Panel Data Regression Analysis for Fixed Effect (ROE)**

ROE	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
BODINDP	11.297	18.291	0.62	0.539	-25.202	47.795
FBSIZE	-20.971	21.719	-0.97	0.338	-64.311	22.386
BODSIZ	2.789	1.564	1.78	0.079*	-0.332	5.912
BANKAGE	-0.791	0.793	-1.00	0.322	-2.375	0.792
TotalAssets	-1.420	1.120	-1.27	0.207	-3.650	8.070
_cons	21.110	29.342	0.72	0.474	-37.440	79.661
Number of obs		84	Prob > F		0.08	
Number of groups		11	F-statistics		2.04	
R-sq		0.324	Ad. Rsq		0.125	

The significance levels are denoted as follows: \* significant at 10% significance level, \*\* significant at 5% significance level and \*\*\* significant at 1% significance level.

Source: Field data (2020)

The panel regression (fixed effect) results outline in table 7 indicates that board independence (p. value = 0.539), female board size (p. value = 0.338), bank age (p. value = 0.322) and total assets (p. value = 0.207) have no significant effect on the return on equity (ROE) of the listed banks sampled.

This suggest that the presence of independent board members, female board of directors, age of the bank and the total assets holdings of the banks thus not have any significant influence on their performance in respect of return on equity (ROE). However, board size (p. value = 0.079) has significant positive

effect on the banks return on equity. This means that an increase in board size could result in an increase in the banks ROE.

**Table 8: Panel Regression Results using Fixed Effect (ROA)**

ROA	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
BODINDP	-1.072	2.713	-0.39	0.694	-6.485	4.342
FBSIZE	-0.865	3.222	-0.27	0.789	-7.294	5.564
BODSIZ	0.552	0.232	2.38	0.020**	0.089	1.015
BANKAGE	-0.196	0.118	-1.67	0.100*	-0.431	0.039
TotalAssets	-6.951	1.661	-0.42	0.677	-4.000	2.611
_cons	5.990	4.352	1.38	0.173	-2.695	14.675
Number of obs		84	Prob > F		0.02	
Number of groups		11	F-statistics		2.93	
R-sq		0.211	Ad. Rsq		0.062	

The significance levels are denoted as follows: \* significant at 10% significance level, \*\* significant at 5% significance level and \*\*\* significant at 1% significance level.

Source: Field data (2020)

The panel regression results (fixed effect) as shown in Table 7 when return on assets (ROA) was used as the dependent variable for measuring banks performance produced the following results. The findings show that board independence - BODINDP (p. value = 0.694), female board of directors - FBSIZE (p. value = 0.789) and Total Assets (p. value = 0.677) have no significant effect on banks return on assets (ROA).

This suggests that board independence, female board size and total assets have no significant influence on the performance of banks. However,

board size and bank age have significant effect on banks return on assets (ROA). A positive significant effect was identify between board size and return on assets (ROA) at 5 percent significant level whiles a negative significant effect was also identify between bank age and return on assets (ROA) at 10 percent significant level.

### Random Effect Regression Results

**Table 9: Panel Data Regression Analysis for Random Effect (ROE)**

ROE	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
BODINDP	-22.524	13.587	-1.66	0.097*	-49.154	4.106
FBSIZE	4.386	17.515	0.25	0.802	-29.942	38.714
BODSIZ	1.422	1.100	1.29	0.196	-0.733	3.577
BANKAGE	0.141	0.070	2.03	0.043**	0.005	0.277
TotalAssets	3.140	7.621	0.41	0.680	-1.181	1.811
_cons	16.085	15.272	1.05	0.292	-13.847	46.017
Number of obs		84	Wald chi2 (5)		11.53	
Number of groups		11	Prob > chi2		0.0419	
R-sq		0.459	Ad. R-sq		0.209	

The significance levels are denoted as follows: \* significant at 10% significance level, \*\* significant at 5% significance level and \*\*\* significant at 1% significance level.

Source: Field data (2020)

In Table 9, the panel regression analysis based on random effect is outline. The findings show that board independence – BODINDP (p. value = 0.097) and bank age – BANKAGE (p. value = 0.043) have significant effect on

banks return on equity. An inverse relationship exist between board independence and return on equity (ROE).

However, a positive significant relationship exist between bank age and return on equity (ROE). On the contrary, no significant effect was established among female board size – FBSIZE (p. value = 0.802) and return on equity (ROE), board size - BODSIZ (p. value = 0.196) and Total assets (p. value = 0.292) have no significant effect on banks return on equity (ROE).

**Table 10: Panel Regression Results Using Random Effect (ROA)**

ROA Std.	Coef.	Err.	z	P>z	[95% Conf.Interval]	
BODINDP	-5.756	1.662	-3.46	0.001***	-9.012	-2.499
FBSIZE	-1.248	2.239	-0.56	0.577	-5.637	3.141
BODSIZ	0.244	0.135	1.82	0.069*	-0.019	0.508
BANKAGE	0.012	0.007	1.71	0.088*	-0.002	0.026
TotalAssets	1.691	9.871	1.71	0.087*	-2.461	3.620
_cons	4.251	1.831	2.32	0.020	0.66	7.841
Number of obs		84		Wald chi2(5)		26.05
Number of groups		11		Prob > chi2		0.0001
R-sq		0.668		Ad. R-sq		0.252

The significance levels are denoted as follows: \* significant at 10% significance level, \*\* significant at 5% significance level and \*\*\* significant at 1% significance level.

Source: Field data (2020)

Table 10 above outline the panel regression analysis using random effect. The results identify shows that board independence – BODINDP (p. value = 0.001), board size – BODSIZ (p. value = 0.069), bank age – BANKAGE

(p. value = 0.088) and total assets (p. value = 0.087) have significant effect on banks return on assets (ROA). A negative significant effect was established between board independence and return on assets.

However, a positive significant effect was also established between board size, bank age, total assets and return on assets. Conversely, no significant effect was identify among female board size and return on assets.

### Hausman Test

Hausman test is carried out to choose among the fixed effect model and the random effect model which one is appropriate for analysis of the study. A null hypothesis of the random effect model being appropriate is set. The alternative hypotheses is that the fixed effect is appropriate. Torres-Reyna (2007) is expressed that a p. value less than 5 percent in Hausman test depicts that the null hypothesis should be rejected. Hence, the alternate hypothesis is then accepted.

**Table 11: Hausman Test for Fixed Effect and Random Effect for ROE**

	Coefficients			
	(b) fe	(B)V_B)) re	(b-B) Difference	sqrt(diag(V_b- S.E.
BODINDP	11.297	-22.524	33.821	12.245
FBSIZE	-20.971	4.386	-25.357	12.844
BODSIZ	2.790	1.422	1.368	1.113
BANKAGE	-0.7912	0.141	-0.932	0.790
TotalAssets	-1.42	3.14	-1.74	8.18
<b>Vb.</b>	<b>Chi-Sq. Statistic</b>			<b>Prob &gt; chi2</b>
ROE	12.02			0.017

Source: Field data (2020)

Findings from Table 11, which shows the Hausman test for ROE model selection between the fixed effect and random effect indicates p. value of 0.017. This p. value is less than 5%, which indicates that the null hypothesis (thus, the random effect model being the appropriate model for data analysis) should be rejected. Hence, the alternative hypothesis is accepted. Therefore, the fixed effect model is the appropriate model adopted for analysing the ROE results for this study.

**Table 12: Hausman Test for Fixed Effect and Random Effect for ROA**

	Coefficients			
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fe	re	Difference	S.E.
BODINDP	1.072	-5.756	4.684	2.145
FBSIZE	-0.865	-1.248	0.384	2.316
BODSIZ	0.552	0.245	0.308	0.189
BANKAGE	-0.196	0.013	-0.209	0.117
TotalAssets	-6.95	1.69	-2.38	1.33
<b>Vb.</b>	<b>Chi-Sq. Statistic</b>			<b>Prob &gt; chi2</b>
ROE	7.95			0.093

Source: Field survey (2020)

Using the Return on Assets (ROA) as the dependent variable the Prob > chi2 (p. value) is greater than 5 percent (thus, 0.093) as outline in Table 12. This makes the fixed-effect estimation model not appropriate for analyzing the panel data set. Hence, the null hypothesis is rejected. Therefore, the alternate hypothesis is adopted for the study. Thus, the random-effect estimation is deemed appropriate for the study.

## **Discussion**

### **Performance (Profitability) trend of banks in Ghana**

The performance trend of the banks in terms of their profitability (return on equity) depicts an up and down performance.

At one given point in time return on equity (ROE) is constant specifically for 2010 (18.9%) and 2011 (18.9%) year of assessment. A return on equity growth is recognized in 2012 (23.2%) and 2013 (26.5%). The increase in return on equity (ROE) is attributable increase total equity mainly from rise in retaining earnings and in increase in net profit of banks. A declining state in return on equity are recorded in 2014 (26.3%), 2015 (12.8%) and 2016 (9.7%) year of assessment. This is mainly attributed to the manifestation of the banking crises. The lowest return on equity was recorded in 2016 representing 9.7% where the banking crises was at its peak. The initiation of banking restructuring programs involving banks recapitalization and closure of non-liquid banks in the period of 2017/2018 yielded positive results by showing sign of relief in terms of growth in return on equity of 15.6 percent in 2017 as compared to 9.7 percent in 2016.

The performance results in terms of return on assets (ROA) is not quite different from that of return on equity (ROE). The return on assets slightly decline in 2011 (2.7%) as compared 2010 (3.0%). It showed a robust and constant increase in 2012 (3.6%) and 2013 (4.2%). However, there was a persistent decline in return on assets in 2014 (3.9%), 2015 (2.0%) and 2016 (1.7%) mainly due to the banking crises that bedevil the nation. Then performance in began to pick up in 2017 by recording return on assets of 2.3 percent higher than that of the figure reported in 2016 (1.7%).



Comparing the performance results for both return on equity (ROE) and return on assets (ROA) it can be recognized the performance trend is similar in term of the ups and downs in their profitability performance.

For both return on equity (ROE) and return on assets both 2014, 2015 and 2016 witnessed a consistent decline in profitability. Again, in 2017 both return on equity (ROE) and return on assets (ROA) increased.

### **Board characteristics of listed banks in Ghana**

Majority of listed banks in Ghana are dominated by non-executive directors representing 72.7% of the total board size. This is an indication that majority of the board of directors are independent of the executive directors and organization as a whole. This is because they are not employees of the company. There are representation of female directors of listed banks board, representing 17.5%. On an average listed banks have 9 members on their board. This is an old number that enhances decision making processes. It can also be noted that the number of executive directors are minimal as compared to non-executive directors.

### **Effect of board independence and listed banks financial performance**

The discussion of findings are based on the fixed random effect model for the effect of board characteristics on return on equity (ROE) as outline in Table 6 and random-effect estimation for effect of board characteristics on return on Assets (ROA) as shown in Table 9 as the appropriate model based on the Hausman test. The findings show that independent board of directors have no significant effect banks financial performance (ROE). However, based on the random effect estimation model independent board of directors have significant negative effect on listed banks return on assets (ROA).

This is an indication that increase in the number of independent directors could result in a corresponding decrease in return on assets. This findings is in line with Mohan & Chandramohan (2018) who established no significant relationship between non-executive and independent directors and firms' performance (ROE). However, this findings contradicts Saidat et al., (2019) whose findings asserts that significant relation between Financial Performance (ROE) and Board Independence, but its supports if findings that significant relationship exist between board independence and banks return on assets (ROA).

#### **Effect of female board size and banks financial performance**

It is interesting to note that for both return on equity (ROE) and return on assets (ROA) based on fixed effect panel regression no statistical significant effect were established between it and female board size. The reason is that till date female representation on corporate board remain lesser or inadequate in order to influence the financial and economic decisions of the firms. It was surprising to note that some of the banks do not have female representation on their board and average mean of female board size is 0.20 representing 20% of total board size (refer to Table 3). This is an indication till date males play dominant role on corporate boards than their female counterparts. This findings is in line with Salloum and Azoury (2012) and Siantar (2015) who opined that female representation on corporate board in itself is not an end to enhanced financial performance. They are of the belief that female directors' composition do not significantly influence firms' performance.

### **The effect of board size on firms performance**

Findings from Table 5 and Table 6 reveal that board size has a significant positive effect on banks performance (ROE and ROA) at 10 percent and 5 percent significant level respectively. This is an indication an increase in board size can lead to increase in banks performance (ROE and ROA). The findings reveal that the minimum board size is six (6) and maximum board size is twelve (12). Also, an average of 9 member are on listed banks board. This findings contradicts Samuel (2013), Obradovich (2013) and O'Connell and Cramer (2010) who are all of the view that a negative significant relationship exist between firms' performance and board size. Also, it contradicts Mohan & Chandramohan (2018) who identified significant negative effect of board size on firms performance (ROE). Further, the findings disputes Ibrahim and Samad (2011) and Bennedsen, Kongsted and Nielsen (2008) arguments that no significant connection exist between board size and firms performance (ROA) for non-family businesses.

### **Effect of control variables (Total Assets and Bank Age) on listed banks performance**

Findings from Table 5 identified no significant effect of bank age on banks performance (ROE). Again no significant effect was recognised between total assets (bank size) and bank performance (ROE). This finding contradict Boone et al., (2007) and Segarra & Teruel (2007) whose studies suggest that businesses performance could differ subject to the size of the business. Thus, an upsurge in business total asset base could result in an enhanced performance and this could be attainable only if the firm makes optimum use of its assets.

It also opposed the results of Bokpin (2013) assertion that bank size matters in explaining profitability (positive association between bank size and bank profitability).

However, when return on assets (ROA) was used a measure of banks performance, the findings suggested that bank age has significant positive effect on banks performance. This is an indication that as the banks age increase it results in corresponding increase in return on assets (ROA). This can be as a result of experience and familiarity the bank gains within the banking sectors through its continuous operations over time. Conversely, no significant effect was identify for total assets (bank size) and banks performance. This also contradicts Hassan, (2013), Joh, (2003) and Kyereboah-Coleman (2007) who identify a positive effect on bank size on bank performance by arguing that bigger companies may benefit from economies of scale and scope than small ones.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **Introduction**

This final chapter provides summary for the findings outlined and discussed in chapter four. It makes justifiable conclusions based on the finding and as well makes necessary recommendation to enhance the subject area.

#### **Summary of Findings**

The principal aim of this study was to examine the effect of board of directors' characteristics on banks performance. The study is specifically based on the following objectives: (1) to determine the performance trend (profitability) of the banks, (2) to established the board characteristics of listed banks in Ghana and (3) to examine the effect of board characteristics on the performance (ROA and ROE) of listed banks in Ghana. A total of eleven (11) banks were covered by the study. A panel data regression analysis (fixed-effect and random-effect estimation based on Hausman Test) was used to establish the relationship that exist among the board of directors characteristics (board size, non-executive board of directors and female board of directors) and that of firms performance.

The findings reveal that the performance trends for both ROE and ROA rise between 2010 to 2013 and then continuously fall from 2014 to 2016. It rose again in 2017. Also, 72.7 percent of the board of directors are independent directors, 17.5 percent of the board are females and on an average the 9 members constitute the size of listed banks board. Also, board size has significant positive effect on both ROE and ROA (bank performance).

Likewise, significant negative effect exist between bank age and bank performance (ROA). Again, no significant effect was identify between board independence and bank performance (ROE), however, there is significant negative relationship between independent board of directors and ROA. Female board size has no significant effect on bank performance (ROE and ROA). Likewise, Bank size measured by total assets has no significant effect on listed banks performance (ROE and ROA). Finally, bank age has significant positive effect on performance (ROA). However, no significant effect exist between bank age and bank performance when return on equity (ROE) was used as a measure of banks' performance.

### **Conclusions**

In conclusion, emphasis can be made that among the board characteristics variables employed for the study, only board size has significant positive effect for both return on equity (ROE). Thus, an increase in board size can result in an increase in bank performance. However, board independence, board size, board age and total assets have significant effect on listed banks return on assets (ROA). Board independence and board size have negative significant effect whereas bank age and total assets also have significant positive effect.

Again, banks with greater age tends to have better return on assets (ROA) as compared to banks with lower age. This could be attributed to grown age banks experience and familiarity with the banking sector.

Finally, it can be emphatically stated that female representations on listed banks board are relatively inadequate to yield the needed results in terms of enhancement of firms' performance. This may be a contributing factor why

female board size does not influence listed banks' performance (ROE and ROA).

### **Recommendations**

In line with the findings and conclusions outlined above, the following recommendations can be outlined:

First, banks should increase their board size in relation to its size (total assets) in order to achieve a better financial performance. Increase in board size that does not correspond to bank size (total assets) could drain the financial fortunes of the bank.

Second, banks should make constant efforts to increase female representations on their board so as to fully benefit that comes along with high female board size (Such as low appetite to risk). Failure to do so makes the few females on banks' board not extremely active. Bank of Ghana should implement gender diversity quota to help streamline over-dominance of male representations on banks' board.

Third, increasing of non-executive/independent directors on banks' board should not only be a paramount strategy in order to minimize agency-related problems but ensure continuous examination of such independence.

This can be achieved by instituting a yearly evaluation of independent status of non-executive directors to ensure that they are executing their task in the manner as expected of them.

### **Suggestions for Further Research**

First, expanding the scope to include all banks in Ghana and some selected banks in Africa may help improve the reliability and validity of the study findings.

Second, expansion can be made to include other board directors' characteristics such as average board of directors' age, board chairman's age, CEO age, Board expertise in finance, board meetings, board committees etc. to help improve the predictive ability of the model in used.



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## APPENDIX A

Banks	Year	TotAssets	BODSIZ	EXEBOD	NONEXEBOD	BODINDP	FBODSIZE	AGE	ROE	ROA	EBODSIZ	NEBODSIZ	FBSIZE
ACCESS	2017	3,199,566	8	2	6	0.8	2	8	6.3	0.9	0.3	0.8	0.3
ACCESS	2016	2,679,608	9	2	7	0.8	2	7	9.8	1.6	0.2	0.8	0.2
ACCESS	2015	2,424,439	8	3	6	0.8	1	6	22.4	3.3	0.4	0.8	0.1
ACCESS	2014	1,718,712	8	4	4	0.5	1	5	29.4	5	0.5	0.5	0.1
ACCESS	2013	991,334	9	5	4	0.4	1	4	21.1	4.6	0.6	0.4	0.1
ACCESS	2012	797,291	8	5	3	0.4	0	3	20.4	4.3	0.6	0.4	0.0
ACCESS	2011	280,724	9	6	3	0.3	0	2	8.6	3	0.7	0.3	0.0
ACCESS	2010	196,784	9	6	3	0.3	0	1	9.6	6.1	0.7	0.3	0.0
ADB	2017	3,545,143	9	1	8	0.9	2	49	5.5	0.7	0.1	0.9	0.2
ADB	2016	3,035,493	8	1	7	0.9	2	48	-15.4	-2.3	0.1	0.9	0.3
ADB	2015	2,134,147	6	1	5	0.8	2	47	-23.7	-3.7	0.2	0.8	0.3
ADB	2014	2,156,740	7	2	5	0.7	2	46	13.9	2.2	0.3	0.7	0.3
ADB	2013	1,621,761	8	2	6	0.8	3	45	28.7	5	0.3	0.8	0.4

ADB	2012	1,444,223	7	1	6	0.9	2	44	13.5	1.8	0.1	0.9	0.3
ADB	2011	1,205,757	8	2	6	0.8	2	43	19.1	2.8	0.3	0.8	0.3
ADB	2010	964,503	8	2	6	0.8	1	42	10.4	1.8	0.3	0.8	0.1
CAL	2017	4,212,638	10	2	8	0.8	2	27	22.4	3.4	0.2	0.8	0.2
CAL	2016	3,599,355	10	2	7	0.7	1	26	1.4	0.2	0.2	0.7	0.1
CAL	2015	3,351,039	10	2	8	0.8	1	25	31.6	4.8	0.2	0.8	0.1
CAL	2014	2,707,542	9	2	8	0.9	0	24	35.8	5.2	0.2	0.9	0.0
CAL	2013	1,558,962	9	2	7	0.8	1	23	32.6	5.9	0.2	0.8	0.1
CAL	2012	1,159,345	10	2	8	0.8	1	22	24.3	4.3	0.2	0.8	0.1
CAL	2011	786,063	8	2	6	0.8	1	21	19.7	2.3	0.3	0.8	0.1
CAL	2010	499,751	7	1	7	1.0	1	20	11.5	1.8	0.1	1.0	0.1
EGH	2017	9,098,692	11	3	8	0.7	2	27	24.9	2.8	0.3	0.7	0.2
EGH	2016	8,025,510	9	3	7	0.8	2	26	34.2	4.1	0.3	0.8	0.2
EGH	2015	6,587,487	10	3	7	0.7	3	25	37.2	5	0.3	0.7	0.3
EGH	2014	5,669,630	10	3	7	0.7	3	24	39.5	5.5	0.3	0.7	0.3



EGH	2013	4,624,405	10	4	6	0.6	3	23	33.4	4	0.4	0.6	0.3
EGH	2012	3,378,843	11	5	6	0.5	3	22	31.4	4.2	0.5	0.5	0.3
EGH	2011	2,128,006	9	4	5	0.6	3	21	27.9	3.3	0.4	0.6	0.3
EGH	2010	1,521,229	8	3	5	0.6	3	20	26.8	3.9	0.4	0.6	0.4
SOEGEH	2017	2,789,742	11	3	8	0.7	1	42	17.4	3.2	0.3	0.7	0.1
SOEGEH	2016	2,448,836	11	3	8	0.7	1	41	19.2	2.6	0.3	0.7	0.1
SOEGEH	2015	2,002,742	11	3	8	0.7	1	40	16.9	2.2	0.3	0.7	0.1
SOEGEH	2014	1,675,949	11	3	8	0.7	1	39	22.4	3	0.3	0.7	0.1
SOEGEH	2013	1,216,553	11	3	8	0.7	1	38	18.8	3	0.3	0.7	0.1
SOEGEH	2012	1,088,927	11	3	8	0.7	1	37	17.8	2.8	0.3	0.7	0.1
SOEGEH	2011	841,077	11	3	8	0.7	1	36	15.2	2.7	0.3	0.7	0.1
SOEGEH	2010	885,913	11	3	8	0.7	1	35	16.7	2.8	0.3	0.7	0.1
UT	2014	1,628,412	7	2	5	0.7	2	24	7.9	0.7	0.3	0.7	0.3
UT	2013	1,336,336	7	2	5	0.7	2	23	7.6	0.7	0.3	0.7	0.3
UT	2012	986,905	6	2	4	0.7	2	22	16.3	2.1	0.3	0.7	0.3

UT	2011	712,864	6	2	4	0.7	2	21	21.3	1.8	0.3	0.7	0.3
UT	2010	516,632	6	2	4	0.7	2	20	19.4	1.9	0.3	0.7	0.3
SCB	2017	4,776,984	8	3	5	0.6	2	121	30.8	5.9	0.4	0.6	0.3
SCB	2016	4,373,564	8	3	5	0.6	2	120	29.3	5.1	0.4	0.6	0.3
SCB	2015	13,075,497	6	1	5	0.8	1	119	11.9	2	0.2	0.8	0.2
SCB	2014	3,506,297	8	3	5	0.6	2	118	39.4	5.9	0.4	0.6	0.3
SCB	2013	2,988,358	8	3	5	0.6	2	117	42.7	7	0.4	0.6	0.3
SCB	2012	2,390,684	8	4	4	0.5	1	116	43.8	5.7	0.5	0.5	0.1
SCB	2011	1,971,062	7	4	3	0.4	1	115	33.4	3.9	0.6	0.4	0.1
SCB	2010	1,677,882	8	4	4	0.5	1	114	36.8	4.3	0.5	0.5	0.1
TB	2017	6,154,574	9	2	7	0.8	2	20	12	2	0.2	0.8	0.2
TB	2016	5,208,072	10	2	8	0.8	2	19	15.1	2.2	0.2	0.8	0.2
TB	2015	4,904,308	8	1	7	0.9	1	18	21.7	3.5	0.1	0.9	0.1
TB	2014	4,662,239	8	1	7	0.9	1	17	35.2	4.8	0.1	0.9	0.1
TB	2013	4,629,850	8	1	7	0.9	1	16	31.1	4	0.1	0.9	0.1

TB	2012	4,335,718	8	1	7	0.9	1	15	19.3	3.7	0.1	0.9	0.1
TB	2011	4,077,158	8	1	7	0.9	1	14	34.3	4.1	0.1	0.9	0.1
TB	2010	3,415,510	8	1	7	0.9	1	13	24	3.1	0.1	0.9	0.1
GCB	2017	9,558,151	12	3	9	0.8	2	64	19.1	2.2	0.3	0.8	0.2
GCB	2016	6,049,604	12	3	9	0.8	4	63	29.5	4.9	0.3	0.8	0.3
GCB	2015	4,641,166	11	2	9	0.8	3	62	30	5.3	0.2	0.8	0.3
GCB	2014	4,232,819	12	3	9	0.8	3	61	40.9	6.4	0.3	0.8	0.3
GCB	2013	3,391,100	11	3	8	0.7	2	60	45.3	6	0.3	0.7	0.2
GCB	2012	2,972,068	8	2	6	0.8	1	59	49.1	4.7	0.3	0.8	0.1
GCB	2011	2,454,564	10	2	8	0.8	3	58	9.8	0.7	0.2	0.8	0.3
GCB	2010	2,084,656	12	3	9	0.8	3	57	22.6	2.6	0.3	0.8	0.3
ECB	2017	376,655	11	2	9	0.8	1	6	1.2	0.2	0.2	0.8	0.1
ECB	2016	364,103	11	2	9	0.8	1	5	0.9	0.2	0.2	0.8	0.1
ECB	2015	349,440	11	2	9	0.8	0	4	2	0.4	0.2	0.8	0.0
ECB	2014	314,074	9	2	7	0.8	1	3	1.5	0.3	0.2	0.8	0.1

ECB	2013	245,231	9	2	7	0.8	1	2	7.9	2.3	0.2	0.8	0.1
ECB	2012	225,639	10	2	8	0.8	1	1	8.9	3.4	0.2	0.8	0.1
ECB	2011	200,275	10	1	9	0.9	0	0	5.7	2.5	0.1	0.9	0.0
HFC	2017	2,079,096	8	1	7	0.9	0	27	16.3	1.8	0.1	0.9	0.0
HFC	2016	1,856,171	8	2	6	0.8	1	26	-27.4	-2.1	0.3	0.8	0.1
HFC	2015	1,566,419	8	2	6	0.8	1	25	-21.8	-2.5	0.3	0.8	0.1
HFC	2014	1,324,350	10	3	7	0.7	2	24	23	4.1	0.3	0.7	0.2
HFC	2013	973,066	11	4	7	0.6	1	23	22.8	3.7	0.4	0.6	0.1
HFC	2012	587,787	10	3	7	0.7	2	22	10.2	2.2	0.3	0.7	0.2
HFC	2011	430,925	9	2	7	0.8	2	21	13.4	2.3	0.2	0.8	0.2
HFC	2010	361,411	9	2	7	0.8	2	20	10.9	2.1	0.2	0.8	0.2