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The Effect of Corporate Governance on Bank Credit Risk:

The Case of Listed Banks in Ghana

By

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DECLARATION

I hereby declare that this submission is my own work towards the award of an MSC and that, to the best of my knowledge, it contains no material previously submitted by another person or any material which has been accepted for the award of any other of the University, except where due acknowledgement has been made in the text.

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DEDICATION

This work is dedicated to my husband, parents and entire family for their support throughout my academic journey.

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I am grateful to the Almighty God for His continuous guidance, blessings and favor has seen me come this far. I am grateful to our supervisor for his support, guidance and encouragement. I am grateful to grateful to my husband and family for their continuous support and encouragement. Finally, I am grateful and thankful to any other person that contributed to the completion of this study and my studies in one way or the other.

ABSTRACT

The study sought to assess the corporate governance of commercial banks and the impact it has on the credit risk of listed commercial banks within the country. The study specifically sought to assess the impact of board composition, board size, board independence, board meeting frequency and the CEO duality on the credit risk of the banks. In all, eight commercial banks were used for the study and data was collected from the annual reports of these selected listed commercial banks. The study was conducted based on five years. In the analysis of the data gathered from the annual reports of the banks, descriptive, correlation and regression techniques were adopted for the study. The findings of the study showed that there was no positive significant relationship between most of the corporate governance variables (board composition, board frequency meeting, independence of the director and CEO duality) and the credit risk of the banks. However, only board size demonstrated a significantly negative effect on credit risk. Despite the results of the analysis showing that there was correlation between three of the corporate governance components and the credit risk of the bank, the relationship was not significant. The study recommended that there is a need for an overhaul of the banking laws to further interpret the corporate governance rules to the commercial banks and there is the need for similar studies to be conducted in other sectors.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In recent times, the financial sectors around the world have witnessed numerous failures of financial institutions. This has led to the buttressing of the significance of corporate governance within the financial sector and the role they play in the effectiveness of banks. (Alabede, 2016). In 2017, the bank of Ghana affirmed corporate governance as a causal factor for the collapse of many financial institutions within the country (Otteng-Abeyie, Affram, & Mensah, 2018). Corporate governance is considered the key component for the growth of banks as well as the development of the economy (Sajid, Rashid, & Faqir, 2012). Corporate governance provides the framework for setting the objectives of the organization and the means of achieving them as well as monitoring the performance of management. The aim of corporate governance is to address the conflicting views of the firm's stakeholders which creates agency problems. Best corporate governance ensures stabled firm financial performance and also shields the company from financial failures and crises.

Banks are fundamental players in the financial sector of the country as its bad or good performance affects the economy. Henceforth, the management of bank assets has become a great concern to managers and stakeholders all over the world 2014 (Chude & Chude, 2014). According to Chude and Chude (2014), People who have shares in the various banks are most often ignorant on the techniques board of directors use in running the organization. This has drawn the attention to corporate governance to help shareholder to know whether the organization is being managed on their favor or not (OECD, 2008). Poor corporate governance contributes to financial distress and failures of many banks in the contemporary times and has become worrisome in the banking industry (Ahmad & Adhariani, 2017). Banks in Ghana are not exempted from this phenomenon as it has experienced many failures.

The Ghanaian financial industry in general has experienced distress among the different tiers of financial institution within the country. Notable among them in Ghana are Microfinance institutions which includes DKM, Multi Credit Microfinance and Unity Trust Microfinance and Commercial Banks which includes Beige bank, Royal Bank and many more (Samanhyia , Oware, & Anisom-Yeboah, 2018) . These issues faced by the banks posits a lot of implication on the economy and the individual such as the loss of trust in the Ghanaian banking system by depositors, economic instability and chaos among others (Brownbridge & Gockel, 2006). In the banking sector, corporate governance plays a significant role in running their activities (Lakshan & Wijekoon, 2012). One of the significant areas that have been associated with the bank's ability to practice effective corporate governance is the management of the credit risk of the bank.

Research on corporate governance has indicated that the primary aim is to ensure the shareholder's wealth is maximized (Black, Jang, & Kim, 2006). This means that effective corporate governance practices will lay emphasis and concentration on ensuring the adequate performance of the management of the bank, efficient resource allocation, undertaking informed investment decisions and ensure the overall reliability in the reporting activities of the organization. These activities when effectively done, will enhance on the financial health of the organization, enhance on information availability and lead to the reduction of the risk of default at the long run (Warga & Welch, 2003). On the other hand, a bank with a weak corporate governance structure have numerous consequences on the operations of the bank with a study on the recent financial crises attributing to a larger extent, banks having huge non-performing loans on the books and making uninformed investment decisions. Generally, this has been attributed to the weak corporate governance structures of these banks (Kirkpatrick, 2019). Thus, corporate governance structures within the banking industry plays a vital role in the overall operations and performance of the banks and can be the defining factor in the bank been distressed or otherwise.

1.2 Problem Statement

Streams of literature have been conducted on the relationship between corporate governance mechanisms and risk with much dominance in the developed economies (Andres and Vallelado, 2008: Hilman and Dalziel, 2003; Switzer and Wang, 2013; Pathan and Faff, 2013; Choi and Hassan, 2015; Ginka et al, 2012). However, within the Ghanaian society several researches have focused on corporate governance effect on performance and/or distress or technical efficiency (Appiah et al, 2017; Saka et al, 2012; Appiah, 2011; Tornyeva and Wereko, 2012), with only Bokpin (2016) examining the relationship between risk taking, regulation and bank governance. This notwithstanding Bokpin only focused on ownership concentration and board composition but however failed to explore the relationship risk management parameters and corporate governance mechanisms. This research seeks to fill this gap in literature on the effect of corporate governance mechanism on credit risk within the Ghanaian banking industry.

The Ghanaian banking industry presents an interesting case study as there has been several rural banks and commercial banks being closed down due to financial distress as result of poor corporate decisions (Ghana Banking Survey, 2019). In the year 2012, fifteen rural banks were declared distressed. In addition, there have been the closure of seven commercial banks, 23 savings and loans, 192 microfinances and 30 rural banks from 2017 to 2019 (Ghana Banking Survey, 2019). Based on this backdrop, the study sought to assess the relationship between the corporate governance structures and the credit risk of listed banks in Ghana.

1.3 Objectives of the Study

The general objective of the study is to assess the relationship between corporate governance and the credit risk of the various listed commercial banks within the Ghanaian Banking sector. Specifically, the study sought to achieve the following objectives:

1. Assess the relationship between the board size and credit risk of the listed banks.
2. Examine the relationship between CEO duality and the credit risk of the listed banks.
3. Determine the relationship between the board composition and the credit risk of the listed banks
4. Assess the effect of board meeting frequency on the credit risk among listed commercial banks
5. Examine the relationship between the independence of the directors and the credit risk of the bank.

1.4 Research Questions

The study sought to answer the following research questions:

1. What is the relationship between the board size and the credit risk of listed banks in Ghana?
2. How does the CEO duality component of corporate governance relate to the credit risk of listed banks in Ghana?
3. How significant is the board composition to the credit risk of listed banks in Ghana?
4. What is the relationship between the board meeting frequency and the credit risk of listed commercial banks in Ghana?

5. How does the independence of the board relate to the credit risk of listed banks in Ghana?

1.5 Significance of the Study

The conduction of the study is significant for various factors. It seeks to address the issue of corporate governance structures and how it relates with the credit risk of various listed commercial banks within the Ghanaian banking sector.

Firstly, the study will inform industry players such as the management of the banks, policy makers and the regulatory body on ways through which the credit risk which is one of the crucial risks faced by the commercial banks within the country could be managed using corporate governance practices and the specific areas to emphasis on. This will give these industry players a scientific proof to base their decisions and practices regarding corporate governance on.

Again, the study will provide policy makers with information on the dynamics of the Ghanaian banking industry. This will provide guidance or serve as a source to these policymakers whenever a suitable policy is been designed to regulate the banking industry. Lastly, the study will serve as a base upon which further studies in the area of corporate governance and credit risk could be based on. It would contribute to literature by adding up to the existing materials on corporate governance and filling the gap of research on the role it plays in the credit risk of the listed commercial banks within the country.

1.6 Scope and Limitations

The study sought to assess the relationship between corporate governance and the credit risk of listed commercial banks within the Ghanaian banking industry. The study is limited to the eight listed commercial banks within the industry and will use the available data retrieved from the annual reports of the banks for the past 5 years (2014-2019). The study is limited to assessing the board size, CEO duality, board independence, frequency of meetings and the composition of the board and the credit risk of the commercial banks. Finally, the study does not consider financial data of unlisted banks, microfinance firms, insurance firms and savings and loans institutions

1.7 Organization of the Study

This research paper is organized into chapters, with the chapters being organized as below:

Chapter one focused on the introductory aspects of the research topic, it gave a general introduction to the research. This chapter is made up of the following, the background of the study, the statement of the problem, purpose of the study, the objectives of the study, the research questions, the significance of the study, limitation of the study and the organization of the study. Chapter Two reviews the related literature on the topic under study. The researchers considered theoretical literature available on the subject matter, the theories underpinning the study, conceptual framework and the empirical review of related studies. Chapter Three deals with the methodology of the research. That is the various methods that the researcher adopted in carrying out the research. This chapter includes the sources of the data, primary and or secondary, the sampling techniques used and the reasons for employing such techniques, model specification and estimation, definition and measurement of variables used in the study. Chapter Four is concerned with the discussion of data, analysis of data and the interpretation of the data collected. That is, how the data was processed, presented, arranged etc. to bring out the meaning in them so to help achieve the objectives of the study. The chapter is made of absolute figures, correlation and regression in analyzing the data collected. Chapter Five deals with summary of findings, making conclusions, recommendations from the findings of the study and areas for further research.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter contains an inspection of literature relating to the subject under study. It outlines the conceptual framework, empirical evidence and opinion of other researchers who have already delve into corporate governance and financial distress.

2.1 Conceptual Review

This section presents the conceptual review. Corporate governance and credit risk are the main constructs used in the study.

2.1.1 Corporate Governance Concept

Corporate governance are the processes and systems in an organization that provide tactical guidelines on how organizations are managed to achieve their set goals as well as addressing the needs of interested parties (Abdullahi, 2000). Good corporate governance improves organizational performance and prevent financial distressed (Hodgson, Lhaopadchan, & Buakes, 2011). Corporate governance can also be defined as the established guidelines, practices and procedures that organizations utilize to steer and govern their operations in an attempt to accomplish their goals (Abernethy, Grafton, & Soderstrom, 2020). It is the relationship between managers, board of directors and stake holders. Corporate governance has been viewed as the manner in which the organization's power is exercised in the stewardship of the firm's assets and resources with the general objective of maintaining and increasing the value of shareholders through the concept of the firm's corporate vision (PSCGT, 2010).

Corporate governance is one of the utmost scopes of an organization's management system. Companies utilize it as they make every effort to attain their goals. It is in fact a key contributing factor to the future progress and survival of an organization as it outlines vital policies upon which the organization can reduce all possible threat to the efficient performance of the organization. The key measures of corporate governance are the board constituent, ownership and quality of the audit committee. Corporate governance provides motivation to management at the topmost level to accomplish the goals of the organization without deteriorating the interest of stakeholders. It spells out the right and responsibilities of various stakeholder in the corporation such as the board, managers and shareholders (OECD, 2008). According to the Cadbury committee report, good corporate governance must cover four aspects; the establishment of the board of directors that has a clear responsibility and who role of directing and governing is unique from the management of the organization; the establishment of various checks and balances within the governance structure of the organization; the availability of a well-balanced board which consist of executive and non-executive directors and to ensure there is transparency in the board's activity of directing and controlling the organization (Cadbury Committee, 1992).

In an age of progressively growing competitive market, organizations are obliged to unceasingly advance as well as improve all aspects of its business. It is then vital for companies to create value for owners and other interested parties by embracing good corporate governance. Corporate governance protects organizations from financial distress (Hodgson, Lhaopadchan, & Buakes, 2011). (Bradart, 2014), recognized four tools that are key to an effective corporate governance. Structure of the board of directors, size of the board, independence of the board and activities of the board.

2.1.1.1 Role of Board Activities

Board of directors are group of people appointed by an organization's shareholders to represent the shareholder and ensure that the organization is well managed on their behalf. Board of directors assess management performance and make major decisions in the organization as well as declare dividends. Board activities actually determines the firm's value. Meeting forms an important part of the activities of board of directors by means of improving the effectiveness of the board as well as stabilize the fortification of managers. But too much meeting in organization limit opportunities for directors to properly exercise control over management. However, board meeting is more responsive than taking an initiative (Jensen, 2003).

For an effective corporate governance, board of directors must have foresight and be fine structured to control and implement policies that can guide the workers towards achieving the objectives of the organization. An effective corporate depends mainly on the board of directors, henceforth appointment of board of directors should be tactically be done since they are well thought out as the main corporate governance tool to prevent a firm from being distressed financially (Walsh & Seward, 1990).

2.1.1.2 Role of Board Size

The issue of board size has been discussed by various authors and researches. The size of the board has been the issue of discussion among these studies with some indicated the need to have a larger board size and others indicating otherwise. The size of the board needs to be restricted to a certain number as having a larger board might lead to the organization having various members who will play no active role and will just be free riding (Huafang & Jianguo, 2017). On the other hand, having a board with a smaller size comes along with its own issues and vital among them is the possibility of lacking the diversity of knowledge, skills and experience needed in the board for the undertaking of various significant decisions for the organization (Weir & Laing, 2011). Again, having a larger board of director's helps to raise the disciplinary control over the CEO than a smaller board of directors.

Studies have shown that companies that run into liquidation are as a result of small number of board of directors. The number of board of directors should be more so as to make sure corporate governance becomes effective (Gales & Kesner, 1994). The various assertions by different studies and authors signify that a company's board size should be sizeable enough to be able to meet the company's requirements and also be able to fit the various committees needed for the smooth running of the organization.

2.1.1.3 CEO Duality

In any organization, the highest positions held by individuals is the Chief Executive Officer (CEO) and the chairman of the Board of the organization. In some situations, or organizations, an individual handle both positions and in others, separate individuals handle those two positions, this is known as separate leadership structure. In instances where the two position are held by a single individual, they are viewed to hold excessive powers within the firm and it comes with its own disadvantages to the firm; this situation is mostly known as a combined leadership structure (Cadbury Committee, 1992). The main role of the board of the organization as a supervisory of the various decisions and investments undertaken by the management stand to be defeated when the position of the board chairman and the CEO is handled by one individual. This is because the person will be dominant within the organization to the extent that there won't be any effective monitoring when this happens (Lam & Lee, 2013).

There is more effectiveness in organizations that practice the separate leadership structure with the separation of the positions of the CEO and the board chairman ensuring there is independence in the supervising of the higher management of the organization by the board. This will ensure there is greater transparency and accountability within the organization (Monks & Minnow, 2014). Despite this, there have been various instances where different authors have also argued that the combination of the position of the CEO and the board chairman have added advantages to the organization. Some of these assertions includes: the combining of the CEO and board chairman role strengthens the organizational leadership (Suryanarayana, 2005) and also the combination of both positions has significant impact on the Return on assets (ROA) of the organization (Dehaene, De Vuyst, & Ooghe, 2011). Thus, both leadership structures of the organization have its own advantages and disadvantages to the organization.

2.1.1.4 Board Composition

The composition of the Board of an organization elaborates on the manner in which the board is represented by both executive and non-executive directors. The board should be able to undertake various objective decisions and needs to be independent to be able to make judgements on the affairs of the company. This means that the board needs to undertake general decisions which should involve all the individuals and not just a small group of people. The executive directors on the board play a significant role; they mostly bring their expertise, knowledge and skills on board and helps the organization to grow (Weir & Laing, 2011). Despite their knowledge on the business and expertise, they are mostly not well positioned to conduct effective monitoring on the CEO due to the role they play within the firm and due to the fact that they report also to the CEO (Daily & Dalton, 2003).

Due to this, it is recommended that the board of an organization should contain more non-executive members who are in the position to conduct effective supervisory on the management of the organization due to their independence from the management of the firm. In most cases, studies have shown and supported the non-executive members of the board as playing vital role and undertaking decisions which are in favor of the organization as compared to the executive directors. This has been attributed to the fear of running their image and also ensuring the interest of the firm is protected.

2.1.1.5 Role of Board Meeting Frequency

The board of directors of the organization plays an advising and monitoring role within the organization. The advising role has to do with the overall corporate direction of the organization, the monitoring role has to do with the ensuring and supervising of the daily operations of the organization which allows the directors to undertake various checks and balances to avoid any conflict of interest between the management and the owners of the organization (Coles, Daniel, & Naveen, 2008). These roles of the board could be achieved effectively when there are frequent meetings conducted to monitor and undertake crucial decisions regarding the direction of the firm. The number of times required for the board to meet in a year has been discussed by different corporate governance agencies and in different studies. Despite the frequency been different depending on the organization, the effectiveness of the board is mostly measured by the frequency of these meetings and the activities they undertake (Fich & Shivdasani, 2013).

The conduction of frequent board meetings helps in the effective monitoring of the activities of the management of the firm and ensuring the board is always aware of the organizational operations so as to make informed decisions and undertake corrective measures. Thus, the effectiveness or the general performance of the organization have been deduced to have a significant impact on the performance of the firm (Harris & Raviv, 2008). THE board, having frequent meetings enhances on their oversights role by giving the board more time to decide on strategies, monitor the management and set various corrective measures. Despite the advantages or benefits of having frequent board meetings, there are various costs that come as a disadvantage to the firm; they include sacrificing of the managerial time, various expenses such as travel and other fees and allowances paid to the members of the board (Conger, Finegold, & Lawler, 2009). This infers that having regular board meetings brings more benefits to the firm which outweighs the disadvantages that comes with it.

2.1.1.6 Independence of the board

Independent directors are those directors who have no interest in the organization. This is usually done to make sure that directors are not influence by interest in the company to ensure proper co-ordination of the activities of the organization. On the other hand, independent directors may not be fair than internal ones and may monitor the activities of the organization well and this may prevent financial distress. Again, shareholder may bear unreasonable amount of risk that may contribute to the crisis of the firm and bankruptcy. The way dependent directors may respond to organizational crisis would not be the same as independent directors in light of the fact that independent directors have no interest in the company (Mace, 1986).

2.1.5 Credit Risk

Credit risk is defined as the chance that a debtor of a financial instrument who can be an individual, a company or even a country may not repay the principal and any additional investment related cash flows according to the terms that were specified in the agreement (Greuning & Bratanovic, 2013). Simply, it is defined as the risk of a default on a debt that may arise from a borrower failing to make the required payments (Basel Committee on Banking Supervision, 2000). The committee further explained that credit risk is the probability that a counterparty will fail to meet their commitments as per the agreement of the contract between the lender and the borrower. It has been defined as the measure of the creditworthiness of a borrower. In the operations of banks, credit risk is one of the crucial risk they face due to the lending activities they undertake.

2.2 Element of Corporate Governance

Corporate governance varies crosswise countries and organization imitating opposing societal values and also competitive conditions. In core countries effective corporate governance encompasses a well-organized and controlled security market, equal dealings of local and foreign investors, implementation of policies protecting the right of shareholders, laws to protect fraudulent activities and significant disclosure prerequisite. On the other hand, many developing countries have not yet come up with their regulatory and legal terms enforcing private and public institution for a good corporate governance (Gregory & Simms, 1999).

Four important areas corporate governance should focus on to be effective were given by Millstein (1998): They are:

2.2.1 Fairness

Fairness has to do with unbiased treatment without refinement. Corporate governance structure should ensure that all stakeholders are treated equally including local and foreign shareholders and must be given equal opportunity to comment when their rights are dishonored. Therefore, there should be laws to regulate this. Another aspect of the fairness is to ensure that the right of shareholder is protected and safeguard their ownership (Millstein, 1998).

2.2.2 Responsibilities

Responsibilities are what one is require to do in a job. Corporate governance should have acknowledged the rights of stakeholders as proven by laws and inspire lively corporation between companies and stakeholders in creating treasure, businesses and the sustainability of financially comprehensive business. This is for the fact that all stakeholders must obey all rules and regulation concerning the corporation in which they run.

2.2.3 Accountability

Accountability is being held answerable for your actions. An effective corporate governance holds managers accountable to the company and shareholders. Directors should avoid selfishness in terms of decision making and act attentively and on a completely informed basis, thus managers should not do anything in their own capacity but rather inform shareholders and owners of any decisions that they take.

2.2.4 Transparency

It is well considered as a pillar in corporate governance. It is the openness of all activities that happen in a corporation. Corporate governance should make certain timely and precise disclosure of all matters concerning the organization including performance, ownership and control of the company. Other components that are crucial to transparency in corporate governance include voting rights, identity of board members and executive compensation.

2.3 Theoretical Framework

2.3.1 Agency Theory

The study was underpinned by the Agency Theory which explains the relationship between the principals (owners of an organization) and the agents (management). The theory helps to determine solutions to various issues that might arise as a result of the relationship that exist between the principals and the agents. The theory encompasses the analysis of an organization to include the separation and control as well as managerial motivation. The theory seeks to explain and resolve the various disputes over priorities between the principals and the agents (Daily & Dalton, 2003). Due to the principals mostly not inclusive in the day-to-day activities of the organizations, the agents (management) of the organization undertake various functions on their behalf. The issue comes in when the priorities of the management is different from that of the principal and this results in the principal agent problems. The agency theory was based on the assertion of Berle and Means (1932). They indicated that the separation between the owners of the company and the control of the firm affords the management the chance to undertake activities that seeks to serve their own selfish mandate (Berle & Means, 1932).

The owners (principals) of most of the commercial banks within the country are mostly not involved in the daily operations or hold active position in the banks. The operations of the banks are then given to various individuals whose mandate is to see to the day-to-day operations of the bank. There have been many instances whereby these agents (management and executive members) of the banks have been associated with undertaking different activities which seek to enrich and satisfy their selfish desires and not the maximization of the shareholder's wealth which should be the main objective of the bank. The agency theory is rooted in the idea that there is a great chance individual will be more passionate about satisfying their own ambitions and wants and will chose those ones over that of others. Corporate governance structures give a clear guideline on how the organization is to be managed listing the roles and responsibilities of all parties and providing roadmap as to how the needs of interested parties will be achieved.

2.3.2 Stewardship Theory

The stewardship theory unlike the agency theory which seeks to interpret the relationships between the principals (owners of an organization) and the agents (management) by way of rationalizing and opportunistically, the stewardship theory which contracts with the agency theory seeks to look beyond mere commercial or economic activities but also looks at some non-monetary intentions for management activities which involves the needs to heighten performance, self-fulfillment and internal satisfaction.

With regards to stewardship theory, manager (agent) is entrusted to make decisions which conforms to objectives of the organization as well as maximizing the wealth of shareholders. Stewards appointed are oblige to act in the interest of their shareholders. A steward is required to maximize and safeguards shareholders worth by performance which derives a steward's fulfilment and a sense of achievement. Davidson and Davis (1991)

According to Daily et al. (2003) Managers are poised to maximize the financial performance and returns of an organization for their status and to be safe guarded as a decision maker of the organization for which they gain fulfilment for their great achievement. The problem of agency or transaction cost directing and monitoring the activities of directors (agent) is low because these directors regard themselves as stewards which has develop some sought of fulfilment or satisfaction from high performing organizations.

2.3.3 Stakeholder Theory

This theory emphasis on the relationships between management and all stakeholders rather than only the investors of an organization. Stakeholder theory can be described as anyone or group of persons affected by the company and its workings or persons whose actions and inactions has an impact on the organization directly or indirectly.

At large, it seeks to look beyond just the interest of the shareholder but also includes employees, customers, creditors, competitors and the general public as a whole.

Sundaram & Inkpen (2004) believes that the needs of each and every stakeholder can be dealt with by the stakeholder theory. On other hand, Smallman (2004) argues that, identifying the real stakeholders are usually difficult and that an effort to meet their needs may lead to corrupt activities. Some advocates of the theory have argued that there should be a just representation of each stakeholder group on a board, that way, anytime there is a board meeting, it meets the expectation of all stakeholder groups (Ping, Cheng and Wing, 2011).

2.3.4 Credit risk Theory

One of the major risk banks face is credit risk which can threaten their survival. Credit risk has been around throughout the ages where financial institutions made use of actuarial techniques pre-1984. Robert Merton in 1974 introduced the credit risk approach otherwise called structural theory. The Merton credit risk model aid financial analysts and investors in understanding whether an entity or borrower would have the capacity in meeting its debt obligation or likely to default. The structural model quantifies credit risk by the probability of default.

Three quantitative credit risk analysis tactics exist to date (Crosbie et al., 2003): operational techniques, reduced appraisal form and incomplete information method. There is a risk of nonpayment when a bank grants credit to its customers. Effective and efficient management of loan recovery and repayments through the establishment of robust controls, procedures, structures and systems to reduce banks' bad loans is termed credit risk (Naceur & Goaied, 2003).

2.4 Empirical Evidence

Corporate governance practices within the organization has been used in solving the agency problem that may arise due to the separation of the ownership role and the management role. These corporate governance mechanisms or practice are kept in place within the organization to ensure the issue is solved. These activities help to check the management of the firm and ensure their decisions and activities is in the interest of the owners and not their selfish desires (Andres & Vallelado, 2008). The banking industry is not an exception to the usage of corporate governance practices and there have been studies that have presented diverse conclusions on the role played by corporate governance mechanisms on the credit risk of the banks. With the Ghanaian banking industry facing some challenges which has led to the closure and consolidation of some banks, the issue of corporate governance and it role within the banking system has become even more crucial. Despite the importance, there has been minimal studies conducted in that regard as compared to other facets of the operations of banks.

2.4.1 Board Size and Credit Risk

The number of individuals on the board influences the decisions taken by the board which intend have a relationship with the overall performance of the firm. A study conducted on the board size and different indicators of the organizational performance showed that the larger the size of the members on the board, the lees effectiveness of the various internal controls which worsens the agency problem (Jensen, 2003). This brings various issues between the owners of the firm and its management. On the other hand, having a large board size have been asserted by Hilman and Dalziel (2003) to have a positive significant or impact on the credit risk of the bank. According to them, having a larger board size means having individuals with different backgrounds and expertise which helps the bank to undertake effective decisions which minimizing their risk (Hilman & Dalziel, 2013). Switzer and Wang (2013) explored the relationship between corporate governance structures and credit risk of US commercial and savings banks. The results showed that after controlling for firm specific characteristics, there is significant association of lower credit risk to larger boards and older chief financial officers of commercial banks

A study conducted on larger bank holding companies in the United Kingdom on the structure of the board and the performance of the banks concluded that the relationship between the size of the board and the credit risk of the bank is not clear with the size having both positive relationships and negative in most banks studied (Adams & Mehran, 2012). Again, a study conducted on the board of 25 selected banks within Europe and the financial crisis showed that banks with smaller board size have been deemed to be effective and having a significantly positive relationship with the credit risk of the bank (Ladipp & Nestor, 2014). This assertion was supported by a study on various banks within the United states which sought to assess whether the board size have any effect on the overall performance of the bank with specific look at the credit risk of the banks (Pathan & Faff, 2013). A study was conducted on the board size and the performance of banks within the Tunisian banking industry and the study concluded that the presence of a larger boar size contributes to the increasing of the overall risk level of the bank. This is due to the lack of an effective control mechanism within such banks (Moalla, 2011).

2.4.2 CEO Duality and Credit Risk

In organizations, the highest positions an individual could ever hold are the beard chairman position or the Chief Executive Officer position. Whereas in some cases both positions are held by the same person, it is the other way around in other firms. According to Jensen (2003), there is the need for the position of the board chairman and the chief executive officer to be separated and held by different individuals. In a study conducted to access the CEO duality and the effectiveness and risk of banks within the Malaysian economy, the study concluded that in the case where the CEO also holds the position of the board chairman, the overall performance of the bank decreases and also increases the various risk whiles decreasing the effectiveness of the board functions of the bank (Bliss, Muniandy, & Majid, 2007). A similar conclusion was brought up in a study on problem loans in Middle East and North Africa (MENA) countries which showed that the practice of having one individual hold the position of CEO and the board chairman leads to power concentration which increases the risk of having problem loans (Boudriga, Boulila, & Jellouli, 2012).

On the other hand, a study conducted on the CEO duality and the ownership structure of Arab banks showed that CEO duality reduces the risk involved in the bank activities. The study concluded that having the same person hold both positions leads to the reduction of bank risks which includes credit risk, various agency problems and reduces the overall probability of the firm going bankrupt (Chahine & Tohme, 2009). They argued that the CEO is more knowledgeable in the different operational areas of the organization and therefore when they hold both positions, they bring on board their knowledge, expertise and skills and also ensure a strong correlation between the decisions of the board and the activities of the organization.

2.4.3 Board Composition and Credit Risk

The board of the organization plays a critical role in the performance and the overall strategic direction of the firm. The members that make up the board is very significant since they are responsible for the undertaking of the critical decisions of the organization. There have been various studies on the role played by the composition of the board and the performance of the organization and these studies have come up with varying conclusions. A study conducted on 440 banks from 32 countries concluded that a board composing of individuals who are more shareholder-friendly are willing to take more risk which intend increases the credit risk of the bank and vice versa (Berltratti & Stulz, 2012). Again, a study conducted on banks in japan showed that the composition of the board had a significantly positive impact on the credit risk of the bank (Horiuchi & Shimizu, 2011). A study on 38 MENA listed banks indicated that the credit risk of the banks depended on the concentration of the board (Boussaada & Labaronne, 2015). Lu and Boateng (2018) examined the effects of board composition and monitoring on the credit risk of the United Kingdom banking sector. The findings of the study revealed a significant influence of CEO duality, pay and board independence to credit risk, thus a positive relationship. Additional findings from the study showed a significantly negative effect of board size and women included on the board on credit risk.

2.4.4 Board Meeting Frequency and Credit Risk

The frequency of meetings held by the board and the various activities they undertake are used as significant indicators in measuring the performance or effectiveness of the board. According to Carcello et al. (2012) on a study conducted on the board characteristics and audit, having frequent board meetings helps the board to be able to deliberate on issues properly before final decisions are taken and this has a positive significant effect on different facets of the organization's performance. In the case of the bank and giving bad loans, having frequent meetings ensures the board is always aware of the subsequent decisions taken and undertaking various steps to ensure they are rectified to avoid the issue of having high non-performing loans on the books of the banks (Carcello, Hermanson, Neal, & Riley, 2012). It also enhances the board oversight activities of the board whiles ensuring the appropriate decisions are taken by the management.

A study conducted to assess the board meeting frequency and the performance of banks listed on the Amman Stock Exchange involved 125 firms and 579 observations concluded that the board meeting frequency was significantly and positively related to the overall performance of the banks. Furthermore, the study indicated that the board meeting frequency leads to better decisions been taken by the bank which reduces the risk of the banks in general (Al-Daoud, Saidin, & Abidin, 2016).

2.4.5 Board Independence and Credit Risk

In the assessment of corporate governance structures, the independence of the board is one of the most researched area. The board within firms are made up of various internal directors and external directors. The internal directors mostly have internal knowledge on the activities of the organization as compared to the external directors who are mostly added to the board due to the knowledge and expertise in a particular field. The presence of both set of directors within the board have their advantages and disadvantages to the firm. In a study on corporate governance systems and mechanisms, it was concluded that having external directors in the board is more significant to the firm's ability of controlling and avoiding various risk due to the ability of these set of directors to question the decisions of the management of the organization as compared to the internal ones who mostly hold lower positions than the manager (Thomson & Conyon, 2012). Again, the external directors have been marked to engage in various activities that are in the interest of the shareholders unlike the internal directors who might engage in various activities such as giving out loans without doing proper background checks which leads to the firm having higher non-performing loans on their books (Ginka, Brockman, Sales, & Zagorchev, 2012).

A study conducted by Pathan (2009) on the boards, power of CEOs and the risk faced by banks concluded that there is a negative relationship between board independence and the bank risks. According to him, independent are mostly sensitive to fulfilling various regulatory requirements and are mostly caught between honoring the interests of the shareholders or honoring that of the regulatory requirements (Pathana, 2009). Again, a study conducted on selected commercial banks in Korea concluded that there exists a negative relationship between the independence of the board and the risk faced by the banks (Choi & Hasan, 2015).

2.5 Conceptual Framework

The conceptual framework of the study is a structure which the researcher believes explains best the natural progression of the phenomenon to be studied (Camp, 2001). The conceptual framework is linked to the various concepts discussed and covered in the study; empirical research and various significant theories used in the promotion of the knowledge promoted by the researcher. Basically, the framework is the researcher's way of explaining how the research will be conducted. The figure below presents the conceptual framework adopted for the conduction of the study.

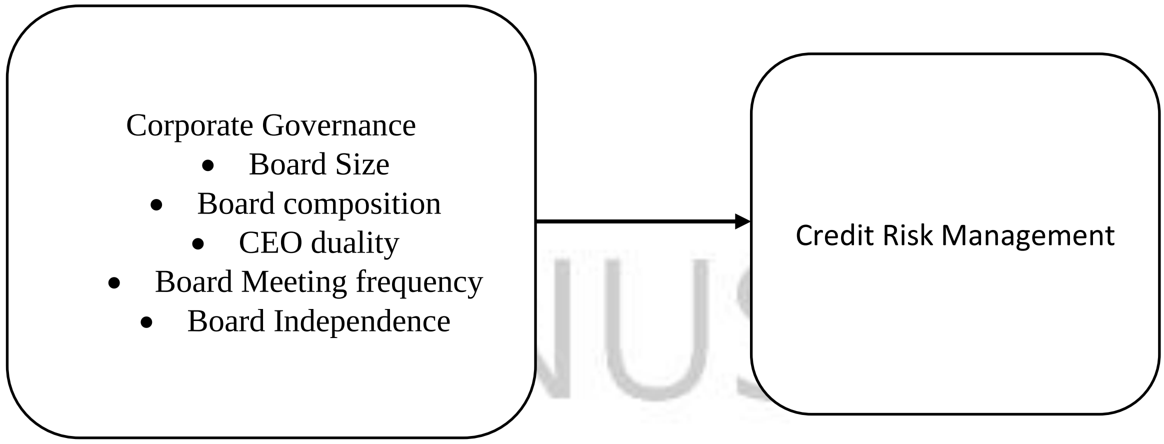

Figure 1: Conceptual Framework of the Study

Source: Researcher's Construct

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The methodology outlines the various research tools that were adopted for the conduction of the study. Specifically, it outlines the research design adopted, the population of the study, the sampling techniques and the sample size for the study, data collection tools adopted for the study, data analysis techniques and the various pre-test tools adopted to ensure the reliability and the validity of the data used for the study.

3.1 Research Design

The research design looks at the general plan of the research been conducted; it presents the various ways through which the researcher goes about in the achievement of the objectives of the study by way of gathering the data, sources of data, the intent behind it and justification of the design used (Saunders, Lewis, & Thornhill, 2019). There are several options available in research but the choice largely depends on the various objectives of the study. Since the researcher sought to assess the relationship between corporate governance and credit risk, the use of explanatory research design is convenient for the undertaking of the study due to its applicability in examining cause and effects relationships.

The study adopted a quantitative approach in the collecting and analyzing of the data for the study. This selection has been arrived at due to the use of panel data. Also, this research is centered on listed banks, hence the case study approach is appropriate (Saunders et al., 2019).

3.2 Population of the Study

The population for the study is the various commercial banks that are listed on the Ghana Stock Exchange. Based on checks on the listed companies on the GSE, there are eight (8) listed banks on the Ghana Stock Exchange. The following are the banks listed on the Ghana Stock Exchange: Eco bank Ghana Limited, Republic Bank Ghana Limited, Standard Chartered Bank Ghana Limited, GCB Bank, The Trust Bank Limited, Access Bank Ghana, Agricultural Development Bank and the Cal Bank PLC. Data from 5 years (2012 to 2016) were extracted for the study.

3.3. Sample Size and Sampling Techniques

The sample size for the study was all the eight listed commercial banks on the Ghana Stock Exchange. The researcher adopted a purposive sampling technique in the selection of the banks used for the study based on a filtering criterion. The filter criteria used in this research was that to be eligible for selection, the bank has to have available complete audited financial statements on their websites, must be solvent within the sampling period and should not have merged within the sampling period. In this regard, the researcher used all the eight banks listed on the stock exchange met these criteria and as such chosen for the assessment of the relationship between corporate governance and the credit risk of the banks.

3.4 Data Collection

In the conduction of the study, secondary data was entirely used by the researcher. Specifically, the data used for the study was sourced from the audited annual reports of the banks for both the corporate governance and credit risk parameters. The macro economic variables, GDP and inflation rate were extracted from the website of both Bank of Ghana annual reports. This yields 40 bank year observations.

3.5 Data Analysis

In analyzing the data required for the study, Microsoft Excel and the Statistical Package for Social Studies (SPSS) was adopted and used by the researcher. The researcher used both inferential and descriptive statistics for the analysis of the data gathered from the annual reports of the banks. Specifically, linear regression and correlation analyses were utilized in determining the relationship between the corporate governance of the banks and the credit risk of the banks. The table below presents the various variables for the study and the measures used by the researcher in calculations.

3.5 Model Specification

In the analysis of the data and the determining of the relationship between the variables, a regression model was adopted by the researcher. Specifically, a pooled regression model was adopted by the researcher in the data analysis. The pooled data regression model was adopted to enable the running of the various observations together by neglecting cross-section and time series. With the use of the pooled data, the regression analysis was conducted without specifying the specific banks nor the years of the observation.

The pooled regression model for the study was adopted from the model as originated by Nzioki (2016) and modified by the researcher to fit the study being conducted. The regression model is presented below:

$$CRM_{i.t} = k_i + {}_1BS_{it} + {}_2CEO_{it} + {}_3BMF_{it} + {}_4BC_{it} + {}_5IndD_{it} + {}_6Inf_{it} + {}_7GDP_t + {}_8LEV_{it} + {}_9FS_{it} + +\varepsilon_{i.t} \quad \dots\dots\dots\dots\dots (1)$$

Where;

Dependent Variable

CRM = Non-Performing Loans/ Total Loans of the banks.

Independent Variables

$k_{i=}$ Constant or intercept

BS = Board Size;

CEO=. CEO duality;

BMF = Board Meeting frequency;

BC = Composition of the board;

IndD= Independence of Directors;

Control Variables

Inf= Inflation rate;

GDP= Gross domestic product;

LEV= Leverage;

FS = Size;

ε = Standard Error Term

The table below presents a summary of the variables given above and ways through which they are measured

Table 1: Variable Measurement

Variable	**Measure**
Credit Risk	Non-performing loans/ Total Gross Loans
Board Size	Natural log (Ln) of total number of directors in the board
CEO Duality	Dummy variable; 1= in the board and 0= otherwise
Board Meeting Frequency	Natural log (Ln) of number of board meetings held in the year
Board Composition	Non-executive directors/total directors
Independence of Directors	Independent directors/total directors
Leverage	Total debt/total assets
Size	Natural log (Ln) of total assets
Inflation rate	Change in consumer price index
GDP	Change in gross domestic product

3.5.3 Significance Test

After the analysis has been conducted with the various statistical tools, the findings are deemed to be significant is the P value produced is less than 0.05. Thus, the elements of corporate governance are deemed to be significant is the P Value result of the analysis is less than 0.05 and vice versa.

CHAPTER FOUR

DATA PRESENTATION AND DISCUSSIONS

4.0 Introduction

This section of the study emphasizes and elaborates on the analysis of the data gathered on the credit risk and the various corporate governance mechanisms. The results of the analysis are discussed as against the various objectives of the study which is done as against related studies conducted in the same area of the study. The analysis of the data was conducted using various descriptive statistic methods, regression and correlation tools. The various data analysis techniques used by the researcher was based on the objectives of the study. With the overall aim of the study seeking to assess the relationship between credit risk and corporate governance of various listed commercial banks in Ghana, the analysis solely depends on the secondary data gathered from the annual statements of all eight (8) commercial banks used for the study.

4.1 Descriptive Statistics

The table below presents the descriptive analysis of the various variables used for the conduction of the study. The table presents the results of the descriptive statistics (Minimum, Maximum, Mean and Standard deviation) of the variables used.

Table 2: Descriptive Statistical Analysis of Variables

	N	Minimum	Maximum	Mean	Standard deviation
Board Size	40	2.08	2.71	2.3058	.17270
CEO Duality	40	1	1	1	.000
Board Meeting Frequency	40	1.39	2.71	2.0512	.31854
Board Composition	40	.33	.88	.5770	.13286
Independence of Directors	40	.23	.63	.3773	.08944
Leverage	40	.23	.64	.4525	.10342
Size	40	13.5890	21.6190	15.88673	2.4375970
Credit Risk	40	.0183	.6672	.148223	.1325772
Inflation	40	.0713	.1745	.137780	.0395940
GDP	40	.0218	.0929	.50260	.281030
Valid N (Listwise)	40				

The table above presents the results of the descriptive analysis conducted on the various variables used in the conduction of the study. With regards to the Board Size which is calculated by the Natural logarithm of the total number of members in the board of the banks, the minimum number was 2.08 whereas the maximum number was 2.71 with a mean of 2.3058. CEO Duality which indicates or represents whether the CEO or the Managing director in some cases of the bank serves on the board in addition to their role as the CEO had a minimum figure of 1 and a maximum of 1. This implies that with all the banks used for the study, the CEO's played double roles as the main CEO of the bank and also a member of the Board of Directors of the bank. The Board Meeting Frequency (calculated as the Natural Logarithm of number of meetings held in a year) had a minimum figure of 1.39 and a maximum of 2.71 with a mean of 2.0512.

The Board Composition (calculated as the Non-Executive Directors/Total Directors) of the companies used for the study had a minimum of 0.33 and a maximum of 0.88 with a mean of 0.5770 which implies that the minimum number of Non-Executive Directors in the banks used was 33% and the maximum was 88% whereas the average was 57.70%. The Board Independence (calculated as total Independent Directors/Total Directors) had a minimum figure of 0.22 and a maximum of 0.63 with a mean of 0.3773. This implies that the minimum percentage of independent directors in the banks was 22% whereas the maximum was 63% with an average of 37.73%. With regards to leverage (calculated as total debts/total assets) which was an internal control variable, the analysis indicated a minimum of 23% and a maximum of 64% with an average of 45.25%.

Another internal control variable used for the study, Size (calculated as the Natural logarithm of the total assets) had a minimum of 13.5890 and a maximum of 21.6190 with an average of 15.8867. The researcher used two external variables for the conduction of the study, inflation rate and the GDP for the period used. The inflation had a minimum of 0.0713 and a maximum of .1745 with a mean of .137780. The GDP had a minimum of 0.0218 and a maximum of 0.0929 and a mean of 0.0503. The independent variable used for the study was the credit risk of the banks which had a minimum of 0.183 and a maximum of 0.6672 with a mean of 0.1482. This implies that out of the 8 banks, the minimum credit risk was 1.83% and a maximum of 66.72% with an average of 14.82%.

4.2 Correlation Coefficient between variables

The table below presents the correlation analysis conducted between the various corporate governance components and the credit risk of the banks used for the study.

Table 3: Correlation Analysis of Variables

	CRM	BS	CEO	BMF	BC	IndD	LEV	FS	INF	GDP
CRM	1.000									
BS	0.1708	1.000								
CEO	0.095	0.5344	1.000							
BMF	0.0813	0.189	0.2752	1.000						
BC	0.0095	0.3037	0.1969	0.0549	1.000					
IndD	0.1698	0.2171	0.0515	0.2163	0.1542	1.000				
LEV	0.3996	0.202	0.0172	0.1106	0.2079	0.1097	1.000			
FS	0.0774	0.411	0.4663	0.2786	0.154	0.1824	0.146	1.000		
INF	0.1633	0.0312	0.0479	0.0208	0.1355	0.2487	0.1366	0.0309	1.000	
GDP	0.1195	0.022	0.054	0.0982	0.1146	0.2616	0.1057	0.0484	0.962	1.000

Notes- CRM connotes credit risk, BS connotes board size, CEO connotes CEO duality, BMF connotes board meeting frequency, IndD is independence of directors, LEV connotes leverage, FS connotes firm size, INF connotes inflation and GDP connotes gross domestic product

The table above presents the results of the correlation analysis of the various corporate governance components and the credit risk of the organization. It can be observed from the results of the analysis that among the five components used for the analysis, all of the corporate governance components were positively correlated with the credit risk of the banks. Specifically, the Board Meeting Frequency (r=.0813), The Board composition (r=.00095) and the independence of Directors (r=.1698). This implies that a rise in the above components will lead to a positive rise in the credit risk of the banks. The Board size component of the bank's corporate governance was also positively correlated with the credit risk of the bank (r=.1708) and CEO Duality with 0.095 correlation coefficient. This also implies that an increase in the board size of the banks will lead to a negative effect on the credit risk of the stated banks used for the study.

With regards to the level of significance of the various corporate governance components, the results of the analysis show that at a significant level of $p>0.05$, the various corporate governance tools or components did not have any significant impact on the credit risk of the stated banks used. Specifically, the significant levels of the various components were Board Size (p=.016), Board Meeting Frequency (p=.423), Board Composition (p= .831) and the independence of Directors (p= .241). The significance level above gives more evidence to show that the various corporate governance components did not have significant relationships with the credit risk of the banks.

4.2.1 Multicollinearlity

In the testing of the multi collinearity among the independent variables used for the analysis, the Variance Inflation Factor (VIF) was used by the researcher with a cutoff point of 5.0. what this means is that in the diagnostic test below, there is no multicollinearity if the VIF figure is below the threshold of 5.0 and suspect of multicollinearity when the VIF figure is between 5.0 and 10 and serious multicollinearity when the VIF is higher than 10.

It can be observed from the table above that there is no issue with the correlation among the independent variables used for the study. The highest of the independent variables if 1.072 which indicates there is no problem of multicollinearity among the variables used for the study.

Variable	VIF	1/VIF
GDP	15.88	0.062964
INF	15.36	0.065116
BS	2	0.498833
FS	1.92	0.521028
CEO	1.69	0.591359
IndD	1.49	0.668994
BMF	1.44	0.692763
BC	1.34	0.745302
LEV	1.18	0.845831
Mean VIF		4.7

4.2.2 Diagnostic Test

For the main regression analysis, the Hausman Test was run to ascertain the models to adopt. The rule of thumb was that the preferred model being the random effect model was made the null hypothesis with the alternate being the fixed effect model. Therefore, provided the test is significant that is less than or equal to 5% then the appropriate model has to be the fixed effect model.

Table 5: Test for preferred models

Model 1: Hausman test:	
chi2(8)	= 7.48
Prob>chi2	= 0.4858
Model 2: Hausman test	
chi2(4)	= 1.78
Prob>chi2	= 0.7769

Source: Author's Computation using Stata 11

From the analysis however, the level of significance from the Hausman tests showed that the null hypothesis is the best fitting for the models. Thus, the researcher adopted the random effect regression analysis.

Further analysis to ascertain the existence of serial correlation in the model using the Pesaran CD tests. For this, the findings of the study showed that there is no serial correlation for both models. This was denoted by Pesaran's test of cross-sectional independence = -0.043, Pr = 0.9655 and Average absolute value of the off-diagonal elements = 0.470 for the model 1. And Pesaran's test of cross-sectional independence = 1.409, Pr = 0.1589 with an Average absolute value of the off-diagonal elements = 0.496. Thus, confirming the non-existence of serial correlation in the models.

4.3 Unit Root Test

To ensure stationarity of the panel data for the multiple regression, the unit root test had to be performed in order to guide against misleading results. Pindyck and Rubinfeld (1998) have described regression results whose data contains unit root as "spurious results", that is, it does not reflect what it purports to measure. "Spurious results are fallacious or misleading. Adopting the Levin-Lin-Chu unit root test technique, it was initially discovered that, board meeting frequency, independence of directors and board composition were not stationary, meaning unit root existed, thereby making it difficult to accept the alternate hypothesis of the test. In order not to be implicated in spurious results, the first difference of the variables were examined. The examination and adoption of the first difference of the variables provides a strong evidence that stationarity now exist, therefore giving a better position to reject the null hypothesis of the Levin-Lin-Chu unit root test.

Table 5: Test for Unit Roots

	Levels of P-Values		Differences	
Variables	Without Trend	With Trend	Without Trend	With Trend
CRM	0.0041	0.0011	0.0003	0.0001
CEO	0.0071	0.0000	0.0000	0.0000
BMF	0.1368	0.004	0.0001	0.0003
BC	0.5013	0.0000	0.0000	0.0000
IndD	0.5431	0.0000	0.0001	0.0000
LEV	0.0000	0.0000	0.0001	0.0000
FS	0.0001	0.0000	0.0000	0.0000
Inf	0.0000	0.0000	0.0000	0.0000
GDP	0.0000	0.0000	0.0000	0.0000

4.4 Regression Analysis

In the analysis of the study variables, a regression analysis is adopted for the testing of the relationship between the variables involved in the study. The table below presents the Model summary to test the variations in the dependent variable (Credit risk) that can be explained by the independent variables (corporate governance components).

Table 6: Model estimation result summary (Pooled regression)

CRM	Coefficients	Std.Err	T-stats	P-value	95% confid	interval
BS	-0.2934	0.155834	-1.88	0.069	-0.61165	0.024859
CEO	0.027418	0.049059	0.56	0.58	-0.07277	0.127611
BMF	0.098365	0.071693	1.37	0.18	-0.04805	0.244781
BC	-0.11595	0.165716	-0.7	0.49	-0.45439	0.222486
IndD	0.234573	0.259823	0.9	0.374	-0.29606	0.765201
LEV	-0.64825	0.199837	-3.24	0.003	-1.05638	-0.24013
FS	0.014763	0.010803	1.37	0.182	-0.0073	0.036825
INF	2.278468	1.881302	1.21	0.235	-1.56366	6.1206
GDP	2.89067	2.695462	1.07	0.292	-2.6142	8.395538
_cons	0.188614	0.626787	0.3	0.766	-1.09146	1.468685

Notes- CRM connotes credit risk, BS connotes board size, CEO connotes CEO duality, BMF connotes board meeting frequency, IndD is independence of directors, LEV connotes leverage, FS connotes firm size, INF connotes inflation and GDP connotes gross domestic product

Note: significant difference 1%***, 5%** and 10%*

From the results in the table above, some discussions on the effect of corporate governance on bank credit risk in Ghana are as follows:

Board size is statistically significantly negative to credit risk and this finding is consistent with the finding of Salhi and Boujelbene (2012) and contradicts the findings of Switzer and Wang (2013), Adams and Mehran (2012) and Pathan and Faff (2013). This can be interpreted as there is a possibility of worsening credit risk management as the size of the board increases.

Board meeting frequency is statistically insignificant to credit risk. The frequency by which the board meets have been deemed to have a relationship with different performance areas of the organization. The result is at variance with the findings of Carcello et al (2012) and Al-Daoud et al (2016) who indicated that board meeting frequency had significant impact on the performance areas of the organizations which includes the reduction of risk factors with the firm.

Board composition indicates a negative but insignificant influence on credit risk. This contrast the findings of Bertratti and Stulz (2012) and Horiuchi and Shimizu (2011) who found a positively significant nexus. This implies that as the number of independent directors' increases on the board it does not affect the fall in credit risk.

Board independence had no positive significant relationship with the credit risk of the commercial banks. This is against the assertion of Choi and Hasan (2015) who indicated that there was a relationship between the independence of the Board and the credit risk of the bank.

With regards to the role played by CEO Duality in the credit risk management of the bank, the analysis showed that there is no significant relationship between these two variables. This implies that the CEO acting as the board chairman would not have any significant effect on the credit risk of the bank. This finding opposes the assertion of Chahine and Tohme (2009) who asserted that the possibility of the CEO acting in both roles leads to the reduction of the risks of the banks such as the credit risk.

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1 (Without control variables)	.446[a]	.199	.108	.1252433
2 (With control variables)	.614[b]	.377	.216	.1173796

a. Predictors: (Constant), Board Composition, Independence of Directors, Board Meeting Frequency, Board Size

b. Predictors: (Constant), GDP, Size, Leverage, Inflation, Board Composition, Independence of Directors, Board Meeting Frequency, Board Size

The table above presents the model summary which provides the figures for R and R^2. The figures shown in the table indicates two different regression results. The ***a*** represents the results without the control variables whereas ***b*** represents the results with the control variables. The R figure in ***a*** show a correlation of 0.446 which implies a low degree of correlation between the variables and the credit risk of the bank. Again, the R^2 in ***a*** show a correlation of 0.199 which implies that 19.9% of the total variations in the credit risk of the banks (dependent variables) by the independent variables which is very small.

In b (with the control variables), the R figure was 0.614 which shows a larger correlation as compared to the one without the control variables. With regards to the R^2 which explains the level of variation that is explained by the independent variables, the figure of 0.377 (37.7%) showed a lesser percentage of the variations in the credit risk of the stated banks explained by the various corporate governance components.

The table below presents the ANOVA statistics of the various variables used for the study. The table presents two different results; the first without the control variables and the second with the control variables.

Table 9: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.136	4	.034	2.175	.092b
	Residual	.549	35	.016		
	Total	.685	39			
2	Regression	.258	8	.032	2.344	.042c
	Residual	.427	31	.014		
	Total	.685	39			

A. Dependent Variable: Credit Risk
B. Predictors: (Constant), Board Composition, Independence of Directors, Board Meeting Frequency, Board Size
C. Predictors: (Constant), GDP, Size, Leverage, Inflation, Board Composition, Independence of Directors, Board Meeting Frequency, Board Size

It can be observed from the table above that the significant level in each situation is higher than the significant level of 0.05. This implies a non-significance in the model predicting the outcome variable (dependent variable). In the first instant where control variables are not used, the significant level of 0.092 is higher than 0.05 which implies a statistical insignificance in predicting the dependent variable. Similarly, in the second instance where the control variables were introduced in the analysis, the significant level of 0.042 was higher than the significance level of 0.05 which shows statistical insignificance in the prediction of the outcome variable.

Table 10: Coefficients

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.317	.577		.550	.586
	Board Size	-.325	.143	-.424	-2.271	.030
	Board Meeting Frequency	.092	.070	.221	1.315	.198
	Board Composition	-.101	.162	-.101	-.624	.537
	Independence of Directors	.214	.254	.145	.843	.406
	Leverage	-.657	.197	-.513	-3.337	.002
	Size	.013	.010	.245	1.285	.208
	Inflation	2.255	1.860	.674	1.213	.234
	GDP	2.875	2.665	.609	1.079	.289

a. Dependent Variable: CREDIT RISK

The table above presents the coefficients of the regression analysis which indicates the necessary information for the prediction of the dependent variable from the independent variables and also to determine the statistical level of the variables to the dependent variable. It can be observed from the table above that Board Size (β=2.271, p=.586), Board Meeting frequency (β=1.315, p=.198), Board Composition (β=0.624, p=.537), Frequency of meetings (β=.550, p=.586) and Board Independence (β=.843, p=.406) all didn't have any significant effect on the credit risk of the commercial banks. This implies that the changes in the credit risk of the commercial banks is not statistically explained or predicted by the various corporate governance components used.

4.4 Discussion of Findings

4.4.1 Relationship between the board size and credit risk of the listed banks

Board size is statistically significantly negative to credit risk. This can be interpreted as there is a possibility of worsening credit risk management as the size of the board increases. The result is inconsistent with Salhi and Boujelbene (2012) who indicated that the board size had a negatively significant relationship with the credit risk of the bank whiles it is inconsistent with, Pathan and Faff (2013). This implies that larger board size assist in decreasing credit risk taking activities. Lue & Boateng (2018) reported that women on the board and board size have a negative and significant influence credit risk. Likewise, the study Moussa (2019) examined the influence of internal corporate governance on credit risk of Tunisian banks and found that the larger the board size, the higher the credit risk with a lower credit.

4.4.2 Relationship between CEO duality and the credit risk of the listed banks.

Board meeting frequency is statistically insignificant to credit risk. The frequency by which the board meets have been deemed to have a relationship with different performance areas of the organization. The result is inconsistent with Harris and Raviv (2008) who indicated that board meeting frequency had significant impact on the performance areas of the organizations which includes the reduction of risk factors with the firm. Moreover, results of the study conducted is in tandem with Boussaada & Laboronne (2015) revealed CEO duality is not significant to credit risk.

4.4.3 Relationship between Board composition and the credit risk of the listed banks.

The study found that board composition had a positive insignificant influence on credit risk. This is in line with of Weir and Laing (2011) who indicated that the availability of executive directors has an insignificant role in the reduction of risk within the various sectors.

4.4.4 Relationship between Board independence and the credit risk of the listed banks

Board independence had no positive significant relationship with the credit risk of the commercial banks. This is against the assertion of Choi and Hasan (2015) who indicated that there was a relationship between the independence of the Board and the credit risk of the bank. Lue & Boateng (2018) also revealed that board independence has a positive and significant effect on credit of banks in the United Kingdom.

4.4.5 Relationship between CEO Duality and the credit risk of the listed banks

With regards to the role played by CEO Duality in the credit risk management of the bank, the analysis showed that there is no significant relationship between these two variables. This implies that the CEO acting as the board chairman would not have any significant effect on the credit risk of the bank. This finding opposes the assertion of Chahine and Tohme (2009) who asserted that the possibility of the CEO acting in both roles lead to the reduction of the risks of the banks such as the credit risk.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This section of the study emphasizes on the summary findings of the study, the various conclusions drawn, and recommendations in relation to the effect of corporate governance on credit risk of listed banks in Ghana. This chapter is summarized into four sections: Section 5.1 presents the research findings; Section 5.2 presents the conclusion followed by Section 5.3 the recommendations and finally Section 5.4 directions for future researches in the same area of study.

5.1 Summary of Findings

The study sought to assess the relationship between the corporate governance elements and the credit risk of listed commercial banks in Ghana. The study sought to assess the CEO duality, board composition, board size, board meeting frequency and the board independence and the relationship with the credit risk of the banks. Secondary data was collected from the annual reports of the selected commercial banks from 2012 to 2016. The study covered eight commercial banks within the country. In analyzing the data gathered from the annual reports, descriptive statistics, correlation and regression techniques were used in analyzing the data.

Relationship between Board Size and Credit Risk

The size of the company's board needs to be sizeable enough to be able to meet the company's requirements and to be able to undertake the necessary decisions for the smooth running of the company. The findings reveal a significantly negative effect of board size on credit risk.

CEO Duality and Credit Risk

On the nexus between CEO duality and credit risk, the findings of the results reveal an insignificant but positive effect on credit risk of listed Ghanaian banks.

Board Composition and Credit Risk

The findings report an insignificant but positive effect of board composition on credit risk.

Board Meeting frequency and Credit Risk

The Board of a bank is the highest decision-making body of the bank or company; they decide on the strategic direction of the bank. The board meet frequently for the discussing and reviewing of the activities or decisions they have made earlier. The frequency by which the board meets have been deemed to have a relationship with different performance areas of the organization. However, the results of the analysis showed that the Board Meeting frequency had no significant effect on the credit risk of the various listed banks. This finding is opposed to the assertions of Harris and Raviv (2008) who indicated that board meeting frequency had significant impact on the performance areas of the organizations which includes the reduction of risk factors with the firm.

Board Independence and Credit Risk

The independence of the board has been deemed to have different views and play different roles within the organization. The results of the data analysis showed that the board independence had no positive significant relationship with the credit risk of the commercial banks. This is against the assertion of Choi and Hasan (2015) who indicated that there was a relationship between the independence of the Board and the credit risk of the bank.

5.2 Conclusions

The issue of corporate governance has been discussed along all sectors and firms and it has proven to play significant role in the activities of the institutions. The concept has been viewed to play vital role in the achievement of higher performance and efficiency whiles ensuring the increase of stakeholder's value is achieved. From the foregoing findings of the study, the various all corporate governance but board size suggested an insignificant effect on credit risk of banks. Despite the findings showing small correlation between the variables, the significance test showed that the variations in the dependent variables that could be explained by the independent variable was very low signifying a weak relationship.

5.3 Recommendations

Based on the various findings and conclusions of the study, the following recommendations are suggested by the researcher:

i. Despite the study showing non-significant relationship with the credit risk of the bank, there is the need for the management and stakeholders of the banking industry within the country to put the measures needed to enhance on their overall performance through good corporate governance practices put in place by the management of the sector to ensure the achievement of transparency and accountability whiles enhancing the performance of the banks.

ii. The study revealed that the frequency of the board meetings was very low. There is the need to undertake frequent meetings to discuss issues that will help enhance on the operations of the banks. These banks need to put together various steps to ensure the frequency of meetings is enhanced.

iii. In light of recent happenings in the banking industry, there is the need for an overhaul of the various laws governing the banking industry's corporate governance activities.

This will help put an end to various issues faced within the industry.

5.4 Recommendations for Further Studies

With the foregoing results, there is the need to undertake future research in the area of corporate governance and the performance of other companies in different industries of the economy to be able to fully understand and appreciate the role played by corporate governance. Again, in the conduction to the study in future researches, there is the need to interview the various senior members of the companies used and not rely solely on the secondary data available. This will ensure the researcher is able to gather in depth information about the corporate governance practices of the firm.