KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

KNUST SCHOOL OF BUSINESS

AN EMPIRICAL ANALYSIS OF THE IMPACT OF CORPORATE GOVERNANCE ON THE PROFITABILITY OF PUBIC LISTED COMPANIES IN GHANA: A PANEL DATA APPROACH

BY

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THIS THESIS IS SUBMITTED TO THE KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF

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DECLARATION

'I hereby declare that this submission is my own work towards the Master of Business Administration in Strategic Management and Consultancy Degree and that, to the best of my knowledge and belief, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgment has been made in the text

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DEDICATION

This work is dedicated to God Almighty, who through His blessings has led me through this research and to my dear husband for his encouragement.

ABSTRACT

The financial and non-financial sector in the Ghanaian economy has been recently exposed to lots of crises mainly due to corporate fraud and scandals. The negative effects of these crises on the stakeholders of PLCs have, therefore, necessitated the review of corporate governance codes in the country. The study employs the dynamic panel data model to examine the effect of corporate governance on the profitability of PLCs. To achieve this objective, the study obtains data on 25 PLCs from 2017 to 2021. This study aims at examining the effect of corporate governance on the profitability of PLCs in Ghana. To achieve objective, the study with four objectives by investigating the effect of each of the four corporate governance variables on the profitability of PLCs. The study employs corporate governance variables such as CEO duality, independent audit committee, board size and independent directors and the performance variables include the Return-On-Equity, Return-On-Asset and Tobin's Q. The findings of the study indicate that only CEO duality has a significant effect (0.024176) on the ROA of PLCs in Ghana. In appendage, only CEO duality (0.043246) and independent auditor (-1.180545) have a significant effect on the ROE of PLCs. Moreover, only CEO duality (0.0032) has a significant effect on the TQ of PLCs. PLCs should look at practicing the one-tier system as that improves the profitability of the firms. In appendage, PLCs should ensure that the acquisition of independent audit committees would not financially drain the companies. Hence, the firms need to be prudent in the acquisition of independent auditors.

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CD	CEO Duality
PLCs	Public Listed Companies
ROA	Return On Assets
ROE	Return on Equity
TQ	Tobin's Q
DPD	Dynamic Panel Data
CG	Corporate Governance
IAC	Independent Audit Committee
AR	Autoregressive
FA	Firm Age
LV	Leverage
ADF	Augmented Dicky Fuller
PP	Phillips Perron
BS	Board Size
GMM	Generalized Method of Moments

CHAPTER ONE

1.0 Introduction

This chapter presents the background of the study, statement of problem, justifications, objectives and research questions of the study. In appendage, this chapter consists of the scope and the significance of the study.

1.1 Background to the Study

Corporate Governance is a framework adopted by companies for direction and control (Cadbury Report, 1999). It allocates the rights and responsibilities in the corporation to members including the shareholders (owners), the board, managers, and other stakeholders. Additionally, corporate governance defines the procedures and rules governing corporate affairs decisions (Khan, 2011). According to Keasey and Wright (1993), corporate governance, in other words, implies a system put in place to ensure effective regulation, monitoring, and control of companies for achieving the set objectives. In the early 2000s, the collapse of large firms like Enron in the USA, Vivendi Universal in France, the recent scandal at Parmalat in Italy, and others in the early 2000s due to the financial scandals gave prominence to the issue of corporate governance (Berndt & Leibfried, 2007). Furthermore, corporate governance gained more prominence following the 2007 financial crisis which crippled the financial sector and global economy at large. Therefore, there have been continuous attempts made by scholars and policymakers to promote corporate governance to ameliorate corporate fraud and scandals in firms (Zhou et. al., 2018). Corporate governance has been defined and practiced differently in different countries attributed to the different powers that owners, managers, and providers of capital wield (Craig, 2005). An important objective of

corporate governance is to utilize mechanisms to help minimize principal-agent conflict by ensuring accountability and transparency for implementers of policies in organizations. In the Ghanaian dynamic economy, CG has become essential in directing and controlling companies. The direction by which firms undertake their core activities is very important as it supports the organizational environment for firm's core activities, and it serves as the main factor affecting firms' efficiency and profitability (Appiah et. al., 2017).

A large number of research on corporate governance have supported the evidence that CG improves firms' performance (Abor et. al., 2007; Hu et. al., 2008; Asare et al. 2022; Appiah et. al., 2017; Sarpong et al., 2022). Nonetheless, few studies have reported that CG undermines firms' performance (Hutchinson, 2002). Moreover, some studies argue that there are no significant relationships between the performance of firms and CG (Prevost et al., 2002; Park et. al., 2004). Meanwhile, there have been mixed findings in studies that examine bank performance and CG relationship (Adusei, 2011; Appiah et al., 2017). Nevertheless, there is only a handful of studies carried out in public listed firms, particularly in Ghana.

This study seeks to find out the effect of CG variables on the profitability of PLCs. This study depends on the agency theory and resource dependency theory. The study, also, makes a contribution to knowledge by creating awareness among the stakeholders about the relevance of CG in public listed companies in Ghana. The study employs CG variables that are most widely used in literature and have shown a significant contribution to the profitability of firms. These variables employed are also some of the main corporate governance variables emphasized in the

corporate governance codes. Similarly, the study employs two important performance variables such as ROA, TQ and ROE.

1.2 Statement of Problem

Recent financial crises in the country experienced from 2017 to 2018 have been greatly attributed to inefficiencies and irresponsibility of players in both the capital market and credit market associated with fraudulent corporate governance issues (Torku, 2020; Avortri C. and Agbanyo R. 2020). These events have further increased the uncertainties in the sector and established doubts and anxiety among investors and corporate players concerning the control and direction of firms in Ghana. Notwithstanding the numerous studies on CG in Ghana, recent developments in the control of firms still remain problematic considering numerous crises emanating from corporate failure, indicating that further evidence is required to clarify things. This study is, as a result, focused in this direction to reveal more evidence on the dilemma in corporate governance, and to bring forth evidence that could explain the recent crises in Ghana. Admittedly, previous studies have improved our knowledge of the association between firms' probability and CG in Ghana, but there are still gaps left to be explored. Generally, one area left to be explored area is the contribution of corporate governance to performance in public listed firms. This study, as a result, adds to the literature by assessing the significance of CG in public listed firms. Moreover, the study extends to investigating how CG can improve public listed firms' performance and efficiency.

1.3 Objectives of the Study

The study's main objective is to investigate the impact of CG on the profitability of public listed firms in Ghana.

The following are the specific objectives of the study:

1) To examine the effect of board size on the profitability of PLCs in Ghana
2) To analyze the effect of the independent board on the profitability of PLCs in Ghana
3) To examine the effect of independent auditor on the profitability of PLCs in Ghana
4) To examine the effect of dual leadership on the profitability of PLCs in Ghana?

1.4 Research Questions

1) What is the effect of board size the on profitability of PLCs in Ghana?
2) What is the effect of an independent board on profitability of PLCs in Ghana?
3) What is the effect of independent auditor on the performance of PLCs in Ghana?
4) What is the effect of dual leadership on the profitability of PLCs in Ghana?

1.5 Significance of the Study

The study will provide significant contributions to the following stakeholders:

1. The study will inform the SEC about the effect of the CG variables on the profitability of PLCs. This will provide more insight into those variables that significantly influence the profitability of PLCs and, hence, would serve as a guide to the SEC in the future when reviewing the corporate governance codes.

2. Shareholders, who are the owners of the companies, have keen interest in the performance of their companies as that will affect the value of their shares. Therefore, shareholders would be well informed about this study's outcome when making fundamental decisions about governance issues in public listed companies. Shareholders would be informed which corporate governance area to take the most when taking decisions for the improvement the performance of public listed companies and, hence, the value of wealth of their shares.

3. The study would inform the public listed companies about the need to consider corporate governance as an effective tool in the improvement of the performance of the companies. In appendage, the findings of the study would inform public listed companies about which of the corporate governance variables to specifically consider in ensuring efficiency and performance of the companies.

4. The study will inform future researchers about how different their scope of study should be. Future researchers can use this current study as a foundation to improve upon their research. They can include more corporate governance variables, performance indicators, control variables, a different methodology and different control variables.

1.6 Justification of the study

The study focuses on public listed firms on GSE as literature on public listed firms in Ghana remains scanty. Also, since public-listed firms have more responsibility to the public, they are required to uphold the trust of the public in high esteem. Therefore, it is important to appreciate the impact of the CG variables on the efficiency and profitability of public listed firms in Ghana to contribute to knowledge and inform the stakeholders well about the need to ensure the practice of the recent corporate governance provisions in their organizations.

1.7 Research Methodology

The study will employ secondary sources of data from the Ghana Stock Exchange. Specifically, the annual reports of the various public listed firms from 2017 to 2021 would be used to obtain the data. The documents provide valuable information about the firms and helped us to sort out the CG variables, board size, gender diversity, independent board, and independent audit committee.

The financial statements found in the annual reports of these firms provide good measures of the control variables including performance variables; ROE, ROA and TQ of these firms. The reasons for employing the information in the annual reports and the financial statements of these public

listed firms are that these documents are audited by external auditors. This makes any information therein to be credible, accurate, and complied with the IFR as the reputation of these firms depends on the information. The study employs the dynamic panel data model for the empirical estimation and analysis.

1.7 Scope of the Study

The study assesses the effect of CG variables on the profitability of PLCs in Ghana focusing on:

i) Variables such as independent audit, CEO duality, board size, and independent board as indicators of CG

ii) Profitability variables such as ROA, TQ and ROE

iii) Both financial and non-financial PLCs on the GSE

iv) The study period covers from 2017 to 2021

1.8 Limitations of the Study

The study employs encountered some limitations in the course. The limitations include difficulty in the accessibility and availability of data, time constraints and financial constraints.

1.10 Organisation of the Study

The study consists of five chapters. The first chapter consists of background to the study, statement of problem, objectives of the study, justification, research methodology, scope, and limitations of the study. Chapter two includes definition of key concepts, discussion of topical issues and conceptual framework. Chapter three explains the methodology and organizational profile; research design, population, sampling technique and sample size, data collection method and data analysis and profile of study of the organization. Chapter four presents the findings and their analyses. Chapter five includes summary of findings, conclusions and policy recommendation.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The study attempts to assess the effect of CG on the profitability of PLCs in Ghana. This chapter presents the definition of the key concepts, a discussion of some topics and a conceptual framework for the study.

2.1 Definition of key concepts

2.1.1 Corporate Governance

CG has been defined to refer to the mechanism through which companies are controlled and directed (Cadbury, 1999). Effective corporate governance ensures allocating scarce funds to projects with highest returns in order to maximize economic efficiency (Solomon, 2020). There are two major categories of CG mechanisms- internal and external mechanisms. Whereas the internal mechanisms consist of board size, board of directors and independence of board, the external mechanisms consist of market for corporate control, market for managerial talent and labour and competitive market conditions.

2.1.1.1 Board Size

Board size is the aggregate number of directors on a board (Zubeltzu-Juka et. al., 2020; Shukla et. al., 2020). An optimal size of board should be composed of both executive and non-executive and/or independent directors (Goshi et al., 2002). To ensure effective governance of a corporation, the board should be effectively structured. The board size for companies varies across countries due to differences in countries' cultures. As a result, there is no optimal and standard board size for companies in the world. For instance, countries such as UK, Netherland and Switzerland have small board size whereas Germany, Belgium, France, and Spain have a large board size (De Andres et al., 2002; Ahmed et. al., 2017). In appendage, whereas some have argued that board size should compose of eight to nine members (Haron et. al., 2020), others have argued that number of members on the board should range between (Zabri et. al., 2016). Moreover, an optimal board size have been argued by some authors to consist of members of seven or less (Zabri et. al., 2016). Similarly, other authors have argued that large companies should have an optimal board size of sixteen or more directors (Saidat et al., 2018). In contrast, Florackis et. al., (2008) suggested that only an effective board should be comprised of less than seven members. Boards with members of just five were the highest performers in Singapore and Malaysia (Mak et. al., 2003). Actually, there is no optimal board size for a firm (Conger et. al., 2009).

2.1.1.2 Board Independence

Board independence is the ratio of the number of independent directors to the total number of directors (Prabowo et. al., 2011). Worded differently, board size refers to the proportion of independent directors on the board (Abdullah et. al., 2004). BMB Listing Requirements proposes that firms should have at least three independent directors on the board to make it balanced. Thus, the higher the number of independent directors on the board, the more independent the board is (Zabri et. al., 2016).

2.1.1.3 Independent Audit Committee (IAC)

The audit committee safeguards and oversees financial reporting and the interest of shareholders. Recent studies have reported the positive impact of IAC on the profitability of firms. The audit committee is regarded as an essential variable of CG as the presence of IAC can control the dubious conduct of managers (Bansal et. al., 2016). The quality of disclosure of financial reporting improves the performance of firms and strengthens investor trust (Cohen, 2011). The quality of financial reporting disclosure rests on the shoulders of the audit committee. The presence of an IAC might help prevent financial frauds, thereby curtailing funds embezzlement and company losses. Thus, this ensures proper and efficient investment to improve profitability of firms. In appendage, the image and reputation of the company will be improved and, hence, increase investor trust and confidence (Bansal et. al., 2016). The presence and independence of audit committees are important in all Governance codes all over

the world. The more independent the members of the board are, the lesser the likelihood of occurrence of corporate fraud (Abdul Rahman, 2006).

2.1.1.4 CEO duality (Dual Leadership)

Dual leadership, also known as CEO duality (CD), is a dichotomous variable. CD is where the CEO and chairman of the board is vested in one person. As a result, the typology of the board structure can either be a one-tier system or a two-tier system (Coleman et. al., 2006). In the one-tier system, one person occupies both positions of CEO and chairman of the board, whilst the two-tier system has a different persons occupying the positions of board chairman and CEO. The one-tier system has been identified with agency problem and conflict of interest (Hidayyat, 2021) and, hence, supporting the two-tier system. One- tier system increases the incidence of agency problems. The effectiveness of the board in monitoring top management is reduced when a firms practices the one-tier system (Abdullah et. al., 2017). In appendage, Yermack (1996) argues that the two-tier system make firms more valuable. Whereas decision control is the right to monitor and approve proposals, decision management refers to the right to formulate and enforce new proposals for utilizing firms' resources (Fama et. al., 1983). By entrusting decision control and decision management in separate hands, checks and balances will be established to avoid any type of opportunistic behavior. As a result, decision control and management should be in separate hands to overlap of responsibilities and hence conflict of interests. Thus, the two-tier system should more effectively control agency problems. A two-tier system permits firms to acquire an optimal amount of debt in their capital structures (Fosberg, 2004). Fosberg (2004) also finds that, firms practicing the two-tier leadership system have higher debt/equity ratios, though the relationship is statistically insignificant.

2.1.2 Firm Performance

Performance variables are variables that measure the profitability of firms. The most notable performance variables include the ROE, ROA, TQ, Return on Capital Employed, among others. This study employs ROE, ROA and TQ as the indicators of the profitability of PLCs. In appendage, the variables used to measure these performance indicators are readily available in the firms' financial statements. Furthermore, these performance indicators measure the value of shareholder wealth (ROE) and the market value of the firm (ROCE). For public listed firms, market value and value of shareholder wealth are of more interest to the public. Hence, these two performance indicators employed would better inform the public about the viability of investing in these firms and whether they would be getting value for money.

2.1.2.1 Return-On-Asset (ROA)

There is a large number of studies in the literature that have employed ROA as their performance measure (Brown and Caylor, 2005; Cheng, 2008; Brick et al., 2006; Jackling and Johl, 2009). ROA is defined as the earnings before interest and taxes divided by the total assets of the firm for the fiscal year (Epps and Cereola, 2008). ROA incorporates the firm's profitability and efficiency by shareholders and stakeholders. ROA represents the actual firm value (Ponnu, 2008) and widely accepted measure of performance (Kim, 2005).

2.1.2.2 Return-On-Equity (ROE)

ROE is defined as earnings before interest and taxes divided by the total equity of the firm for the fiscal year. Shareholders trust the use of ROE as performance measurement for a corporation (Johnson and Greening, 1999). Also, it is appropriate for both in short-term and long-term for investors (Brealey and Myers, 2000). Overall, ROE is a measure that shows an investor how much profit can be generated by the firm, using the money invested from its shareholders (Epps and Cereola, 2008).

2.1.2.3 Tobin's Q

TQ was propounded by James Tobin in 1969, a laureate in economics. James Tobin proposed the sum of capitalization (market value) on the stock market of all firms should be the same as their replacement costs. TQ, therefore, refers to the ratio of the capitalization of a firm's assets to the replacement value of the firm. To measure the firms' assets market value, the total market value of the firm's outstanding debt and shares. Also, the replacement value is measured by using the assets' book value. A TQ with a ratio greater than 1 shows that the capitalization of the firm outweighs the book value or that the market is overvalued. Similarly, a TQ that is less than 1 is an indication that the capitalization of the firm is less than the book value or the market is undervalued.

The use of TQ in this study is to overcome the distortions inherent in the accounting measures (Benston, 1985). The distortions in the accounting measures are due to the failure to consider systematic risk differences, tax laws, and temporary disequilibrium effects. Hence, when accounting measures of performance for firms are used they sometimes create estimation bias

(Wernerfelt and Montgomery, 1988). Also, TQ doesn't depend on accounting profits which are subject to creative accounting techniques to suit the manager's interest. TQ is, further, future-oriented as it incorporates both current and future information. This to the fact that TQ is the current worth of future cash flows (Wahla et. al., 2012).

Public listed firms are required to disclose their financial status periodically and, as such, reporting a good market value of the firms is a good signal for performance. Stakeholders, especially creditors and other investors are more interested in the market value as that explains the current market performance of firms. This is because the market performance of the public listed firms presents an incentive for making investment decisions in those firms.

2.2 Discussion of specific topical issues

2.2.1 Corporate Governance in Ghana

In 1963, Ghana's Companies Code introduced a CG regime to regulate the formation and operation of firms in Ghana. The corporate governance regime's provisions are largely based on Common Law in England and similar to the 1964 Companies Act in the UK. In 993, the Securities Industry Law created the SEC in Ghana in line with the provisions of the CG provisions. The main purpose of establishing the SEC was to supervise the control of firms and stock exchanges in Ghana. Also, the listing rules on the GSE have helped to regulate the firms and develop a good corporate governance system in Ghana. Nevertheless, the SEC and GSE listing rules requirements for CG were confined only to the audit committees. According to the Listing Regulation LI 1509 of the GSE 1990, companies were required to submit, as part of the procedures for listing on the

Exchange, a document specifying the operation, existence, and effectiveness of the audit committee. Similarly, SECG has made it compulsory that firms submit yearly operation and effectiveness of the audit committee. Moreover, the listing rules of GSE failed to stipulate the number of non-executive boards and their qualifications (GSE, 1990). Therefore, the requirements were narrower (Owusu et. al., 2016) and making enforcement relatively weaker than in other countries exposing the deficiencies in the provisions of the Ghanaian Code (ROSC, 2004).

Ghana introduced a new governance code in 2003 to provide formal procedures for corporate governance practices. This new code mandates the firms to adopt the elements of the code or explain the reasons for rejecting the specific elements of the code. Accompanying the annual report of the firm should include a statement presented by the board explaining how they have adopted the provision of the CG in the code. Contrary to the GSE listing rules and SECG regulations, this new code extended the onerous focus on audit committee to include thirty-three (33) provisions encompassing all the six corporate governance areas: audit committee, board composition, disclosure practices, financial affairs, remuneration committee, and auditing and shareholder rights. Moreover, the code recommends that firms should have at least three audit committees on the board with the most proportion being non-executive directors. Additionally, the code further recommends that these non-executive directors who should represent the audit committee must have adequate knowledge about finance. This code, as a result, significantly broadened the CG in Ghana.

The six broad governance areas in Ghana's code are consistent with the corporate governance principles of the OECD (Owusu and Weir, 2006). In fact, most developing countries set their

corporate governance codes in accordance with the OECD principles (McGee, 2010). Also, the Ghanaian code is in accordance with the recent governance framework set out by the UK for their firms which encompasses the Chair of the board, the effectiveness of the board, the accountability of the board, the setting of remuneration and the board's relationship with shareholders.

In 2019, there was a passage of new Companies Act (Act 992) together with directives from the SEC, BOG and the Registrar of Companies to introduce an innovative way of corporate management in Ghana. The new corporate governance system came with an additional regulatory system and incorporated technology in regulatory matters. Other new regulations include recognizing the minority shareholders' rights, the appointment criteria and duties of the directors, the appointment criteria, qualification, and duties of company secretaries, the ownership criteria, and major transactions as well as the extensions in the names of the companies (Chambers and Partners, 2022).

In the new Act 992, the registration and regulations of firms in Ghana have been handed to the newly established office of the Companies Registrar. Also, the Companies Registrar doubles as a Liquidator of companies as well as provides guidelines for the conduct of operations of firms in Ghana. There is now a virtual registration of companies, reservation of names, conversion of companies and filing of particulars. There will be no certification to start a business but only the issuance of a certificate of incorporation. This is to simplify the process of registration. Hence, no minimum capital requirement would be needed from a firm before the business commences. Nevertheless, companies with foreign participation would still be required to comply with the rules of GIPC.

Companies in the new Act 2019 can be registered even with no accompanying constitution or regulation except for unlimited companies. Companies registered with the new Act must have the following suffixes such as (Public Limited Company or PLC, Private Unlimited Company or PRUC, Limited Company or LTD, Limited by Guarantee or LBG, Public Unlimited Company or PUC) added to their names to give them identity and indicate the kind of relationship they have with their stakeholders. That is, the purpose is to help for easy identification of the types of business firms do and to advise the public to know who they are dealing with.

Similarly, Act 992 has further strengthened the qualifying criteria, duties, and liabilities of persons appointed companies' directors. This has increased the integrity, diligence, and competence of the directors in the conduct of their duties with the companies. There shall be a statutory declaration included in the application for incorporation of firms by directors to show they are clean of any criminal charges levelled against them in the past 5 years. The criminal charges include dishonesty or fraud, or relating to incorporation, promotion, or management of a company or declaration of insolvency or whether they have the particulars and date of the insolvency.

Also, the position of the company's secretary has been enhanced through the qualifying criteria with a higher level of educational qualification and acquired experiences in that position. Under the Act, Company Secretary is required to be appointed by the companies based on the qualification requirements in the Act.

One unprecedented provision of CG code in the Act is the introduction of 'Beneficial Ownership'. This provision is to help identify the exact owners and controllers of the affairs of the companies. This provision has further improved the transparency in the profiling of companies. Moreover, unlike hitherto, shareholders have to approve decisions by the board before they can be implemented. The idea, inter alia, is to ensure corporate accountability, minimize losses and protect companies assets. Minority shareholders have been given the right to ensure the accountability of the directors at law court through a derivative.

The Act has improved the process of auditing by requiring companies auditing to be done in relation to the standards of the International Financial Reporting Standard. Also, companies are required to not use the same auditors for more than six consecutive years. However, the auditor is eligible for reappointment after a period of not less than six years. The new law has given the shareholders some power to influence the major transactions the companies will undertake. In situations of procurement, acquisitions or purchases, dispositions (transfer, gifting, or selling), and transactions that will affect the rights and interests of the companies. This provision is to deny the board of directors of absolute authority to enter into any major transactions without the prior consent of the shareholders. This new provision, as a result, strengthens the democracy of shareholders. Also, shareholders are empowered to ensure their companies' rights through derivative actions.

Moreover, the new provision has improved upon the protection of minority shareholders. This protection is provided through the buy-out of dissenting shareholders. This new provision minimizes dissention in a company and grants relief to minority shareholders against oppression.

Any person who subscribes to the shares of a company is required to be 18 years and above. However, persons below 18 years can subscribe to share in a company only if those shares are held in trust for them and that there are deeds to confirm for either share incorporation or transfer.

2.3 Theoretical Review

There are a lot of governance theories that explain the profitability of firms. This section presents the main theories employed to explain the relevance of CG in the efficiency and performance of firms, particularly public listed firms.

2.3.1 Agency Theory

Agency theory has been linked to the field of economics (Eisenhardt, 1989) where shareholders' interests are not upheld but rather individual families pursuing their own interests (Eisenhardt, 1989). Agency theory is the first and major issue discussed when corporate governance issues are being discussed (Achim and Borlea, 2013). Agency theory dates back as far as in the 1930s when separation was seen as very important in the control of government (Berle and Means, 1932), though the theory gained much more prominence in corporate governance issues in the 1970s. The separation of ownership from management was imperative to ensure that the government does what is best in the interests of the citizenry. Agency theory describes the conflict of interest that arises in the management of a firm when ownership and management of the firm are in separate hands (Aguilera et al., 2008). Here, the agent represented by the managers may be inspired to pursue policies that are more in their interests than in the interests of their owners, who are the principals (Williamson, 1975). Even though managers are perceived to be rational, they do not

always pursue the interests of shareholders. Therefore, CG is an effective tool for resolving the problem of agency (Jensen and Meckling, 1976). The information superiority of the management leads to the asymmetry of information as one of the problems of separation of ownership from management. The problem of adverse selection due to information asymmetry reduces the value of the equity of firms in the market and, hence, affects the wealth of shareholders. Good CG practices with well-diversified, independent expertise and experienced directors can help information asymmetry problems by preventing the selfish interest of agents (Wiseman et al., 2012). Additionally, a larger proportion of outside directors can minimize the self-interest of managers and, hence, minimize the cost of agency (Kelton and Yang, 2008). As a result, a firm controlled by independent directors would help enhance the compliance of firms with disclosure requirements and increase firm profitability

2.3.2 Resource Dependency Theory

The resource dependence theory is based on the activities of a firm. It is based on the view that, because firms are considered open systems, the foundations for resource allocation decisions are related to the social relations and the environment within which they operate. This indicates that these firms rely on other companies for some services that are essential to them. This theory appreciates the role of managers in allocating the firm's resources taking into consideration the environment within which they operate (Hillman et al., 2009).

This theory emphasizes the fundamental concept of the 'network' of the CG construct. Resource dependency theory explains how firms access resources such as expertise and capital to run a firm. The basis of resource dependency theory rests on power manifested in the stewardship of resources

for strategic management of firms and optimal capital budgeting (Pfeffer and Salancik, 1978; Pfeffer and Moore, 1980; Mudambi and Navarra, 2004). One main source of power in resource dependency theory is the bargaining power, which implies how extensive managers and boards can influence the efficient allocation of scarce available resources (Osborne and Rubinstein, 1990; Hillman et al., 2009). Together with the agency theory, the theory of resource dependency is one of the two pillars for analyzing and evaluating decision-making in multinational companies by firms. An adequate amount of resources available to the board of directors can determine the profitability of firms (Pfeffer, 1973). However, boards that have more independent directors are found to be favored by the resource dependency theory (Haniffa and Hudaib, 2006). The broad expertise, network with the outside environment, and qualification embodied by the independent directors can aid increase access to contracts, capital, contacts, and financial information (Nicholson and Kiel, 2003). This would help enhance the financial performance positions of firms and hence, increase the performance of firms.

2.4 Conceptual Framework

Based on the theoretical review, the following variables – CEO Duality, Board size, Board Independence, and Independent Audit Committee were identified to measure the corporate governance variables. Business performance was considered as the dependent variable. The study investigated the association between the dependent and independent variables among the public listed companies in Ghana. Firm Age and Leverage were considered the controlled variables.

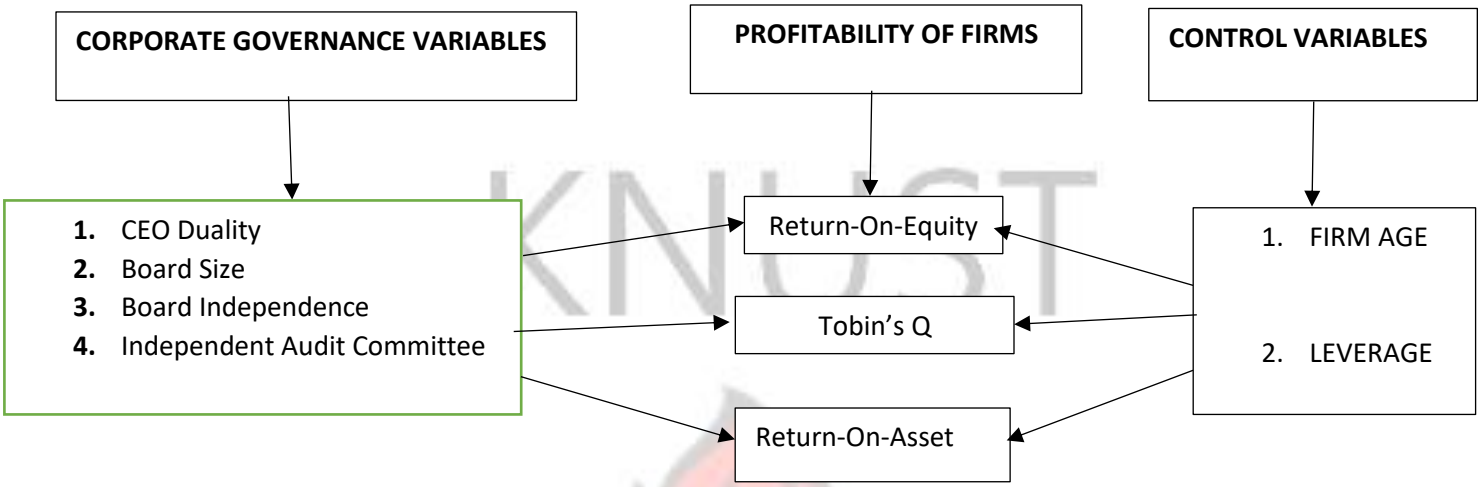

Figure 1: The Conceptual Framework of the Study

2.4.1 Relationship between CG variables and Profitability of Public Listed Firms

2.4.1.1 Chief Executive Officer (CEO) Duality and Firm Profitability

CEO duality is where the firm entrusts the role of the CEO and the role of the chairman to one person. That is, both roles are vested in one person. When the same person holds the position of the CEO and chairperson of the board, it is said that dual leadership exists. Theoretically, studies have empirically examined the relationship between dual leadership and profitability of firms. The proponents of the stewardship theory, the same person should be made to occupy the positions of both the CEO and chairperson. They believe this can lead to the performance of the board in decision-making and improve firm performance (Donaldson and Davis, 1991). It is also believed that dual leadership could help reduce the asymmetry of information and facilitate access to financial resources, reducing the capital cost of firms and improving the performance of firms (Ritchie, 2007). Moreover, lending their support to the stewardship theory, Brickley et. al., (1997)

asserts that CEO duality can likely reduce incomplete communication between the chairman and the CEO. In the appendage, they argued that the CEO duality reduces inconsistencies in decision-making and internal conflicts. CEO duality affords the person the opportunity to use the director's knowledge, information, and expertise to improve the effectiveness of the firm (Daily et. a., 1993). Rechner et. al., (1991) argue that firms with CD have stronger financial performance than other firms.

An important research question is not only whether CEO duality affects firms' profitability but also in what direction. Different studies in the current literature have provided contrasting findings in this regard. Some studies challenge the CEO duality, because it is not in the best interest of stakeholders (Kaymak et. al., 2008; Lin, 2011; Ujunwa, 2012). For instance, Bliss (2011) argues that CEO duality is reduces board independence. However, Dahya et al. (2000) and Brickley et al. (1997) argue that a dual CEO role was important as it saved time in decision-making. Moreover, there are several other studies (Dharmadasa et al., 2014; Schmid et. al., 2008; De Oliveira Gondrige et al., 2012) report no significant relationship between CD and firm profitability.

However, proponents of agency theory suggested that the tow-tier leadership system should be practiced to ensure effective checks and balances (Hashim and Devi, 2009; Goyal and Park, 2002). Similarly, the entrenchment theory explains the CEO duality. Entrenched CEOs capitalize on information asymmetry to have absolute knowledge of firms' finances. This would, therefore, invite the CEO to award projects to friends and families to the detriment of shareholders. When there exists dual leadership, there would be a conflict of interests which will undermine the effective and monitoring power of the board. Wahab et. al., (2015) suggested a significant impact of the separation of CEO and chairman on the profitability of firms in Malaysia. Biekpe and Kyereboah-Coleman (2006) report a negative relationship between a one-tier board and

performance where one person functions as a CEO and chairman of listed firms in Ghana. The study explained that the dual leadership role vested in one person reduces the monitoring power of the top management and undermines the effectiveness of the board on top management. Nyarko et. al., (2017) argued that there is improvement in the quality of decision making, board monitoring, and firm performance when there is no CEO duality. In 2017, the Bank of Ghana stated that there must separation of persons occupying the positions of Managing Director and Board Chair, especially in foreign banks in Ghana. Current literature has supported the report that the separation of the CEO from the board Chairman is very important to the profitability of firms. Sanda et al (2003) report that a two-tier leadership structure has positive effect on firms' performance.

H_1: CD has significant negative impact on firm profitability

2.4.1.2 Board size and Firm Profitability

Board size is defined as the number of directors represented on the board of a firm. The influence of the size of the board on performance has been widely studied with contrasting results. The size of the board affects the quality of the discussions of the board and the board's ability to make the best possible corporate decisions (Lawal, 2012). Ibrahim (2019) examines the effect of board size on the financial distress of listed companies in Indonesia. The study used logistic regression and reported that has a significant negative effect on the financial distress of the companies. Lakshan and Wijekoon (2012) investigated the effect of board size on the corporate failure of Sri Lanka's listed companies. Through logistic regression, the researchers reported that board size has no significant effect on corporate failure. Studies undertaken by Faff and Pathan (2013), Lamichhane

(2018), and Bhattrai (2017) also suggest that large board size leads to poor performance of firms due to increased time spent on decision making. In Nigeria, Darko et. al., (2016) examine the effect of board size on firm profitability among the listed company. The study reported board size has insignificant effect on the profitability of firms.

However, in Ghana, studies by Biekpe (2006) and Nyarko et. al. (2011) suggest that large board size has direct impacts the performance of firms. The reason they gave was that a large board is composed of people with distinctive intelligence that leads to improved decisions and hence enhancement in performance of firms. However, Adusei (2011) argued that a large board size decreases the profitability of firms due to increased remunerations and costs for maintaining the board and inadequate communication among the directors. Also, Sarpong et. al., (2018) reported that board size has no significant effect on financial performance in the manufacturing sector in Ghana. Darko et.al., (2016) employed a panel and cross-sectional data set of 20 selected firms between 2008 and 2012 to investigate the impact of some selected CG variables such as board size on the profitability of listed companies on the GSE. The study reported that board size has an irrelevant effect on the profitability of firms.

H_2: Board size has significant positive impact on firm profitability

2.4.1.3 Board Independence and Firm Profitability

Studies have reported inclusive findings of the role of board independence on the profitability of public listed entities. For instance, the Basel Committee (2015) forcefully argued that banks should have an expert and independent board of directors to help manage risk and improve the performance of banking firms. In Iran, Mashayekhi and Bazaz (2008) reported a significant

positive effect of board independence on the profitability of firms. The researchers used public listed companies listed on the Tehran Stock Exchange (TSE) from the period 2005to 2006. A similar result was reported in Sri Lanka among public listed companies. Lakshan and Wijekoon (2012) investigated the effect of CG on the corporate failure of Sri Lanka's listed companies. The study employed logistic regression as an analytical tool to examine the effect of corporate governance variables such as the outside board of directors on corporate failure. The findings show that outside directors have a significant negative impact on corporate failure. This implies that companies that recruit an independent board of directors reduce their risk of business failure. However, the findings from the study from Indonesia presented a contrary finding. Ibrahim (2019) examines the impact of CG on financial distress. The study employed logistic regression to assess the effect of independent commissioners (board) in financially distressed firms. The study report that both independent commissioners and managerial ownership have no significant impact on financial distress.

In Ghana, studies have presented contrary results to the findings of (Ibrahim, 2019). For example, Andol et. al., (2022) report a significant positive effect of the independent board on the performance firms in Ghana. Sarpong et.al., 2018 employ the generalized least squares (GLS) and panel regression models to examine the effect of CG on the financial performance of manufacturing firms in Ghana. The study reveals that there exists a significant impact of board independence on ROA and ROE.

On the contrary, Darko et.al., (2016) employed a panel and cross-sectional data set of 20 selected firms between 2008 and 2012 to investigate the impact of some selected CG variables on the performance of the PLCs on the GSE. The study reported that independent directors have a significant inverse effect on the performance of firms. However, Abor et. al., (2016) discovered that foreign ownership and independent boards act as a watchdog over managers who are opportunists to enhance the quality of accounting information. Owusu and Weir (2016) examined the effect of CG on the performance of Ghana's listed firms. Employing a panel data analytical model and fixed effect regression as methodologies, the study revealed that board independence has a significant direct effect on the profitability of listed firms.

H_3: Board independence has significant positive impact on profitability of firms

2.4.1.4. Independent Audit Committee and Firm Profitability

The audit committee safeguards and oversees financial reporting and the interest of shareholders. Recent studies have reported the positive effect of the independent audit committee on the performance of firms. Lakshan and Wijekoon (2012) investigated the effect of CG characteristics on the corporate failure of Sri Lanka's listed companies. The study employed logistic regression as a methodology to examine the effect of CG variables – CEO duality, outside directors, audit committee, outsiders' ownership, audit opinion, remuneration of board members, and board size on business failure in the country. The researchers found CG variables such as audit committees prevent corporate failure in Sri Lanka. A similar study was conducted in Indonesia. Rochman et. al. (2016) examine the relationship between corporate social responsibilities and CG among the Indonesian public listed companies. The study employed content analysis and multiple regression analysis as a methodology for the study. The study found that audit committee effectiveness has

positive effects on corporate social responsibilities disclosure in the annual reports. However, in Nigeria, Uzonwanne et. al. (2016) report that an audit committee has insignificant impact on the performance of firms. Bukit et. al., (2009) suggest that IAC toned down earnings management. Abbott (2002) also revealed that IACS has negative impact on earnings management. Zraiq et. al., (2018), Nurul et. al., (2018) and Ibrahim et. al., (2019) argue that IAC enhance performance of firm.

In Ghana, a series of studies have been conducted with conclusive findings. For example, Nyarko et. al., (2017) and Boachie (2021) report that IAC has direct effect on firms performance. However, Darko et.al., (2016) and Akpey et. sl., (2016) report that the audit committee has an insignificant effect on the performance of firms in Ghana. The Bank of Ghana (2018) reported that dubious transactions and fraudulent financial reporting led to the collapse of many banks. This was attributed to the inefficiencies in the work of the audit committee. Hence, it is a fact that an IAC ensures the performance of firms in Ghana and protects shareholder interests

H_3: Independent audit committee has a significant positive effect on profitability of firms

2.3.2 Control Variables

2.4.2.1 Leverage and Firm Profitability

Leverage is the ratio of both short-term and long-term debts to the total assets of a firm. According to the Modigliani-Miller framework, the capital structure of a firm does not significantly affect its market value. Some authors argue that higher debt levels reduces the agency cost of the firm indicating a significant direct relationship between capital structure and firm performance (Al-

ahdal et. al., 2021; Hongli et. al., 2019; Phan et. al., 2017). Therefore I have taken leverage as one of the two control variables in our study.

However, many other authors such as Bui (2017); Gondrige et al. (2012), Fauzi et. al., (2012), Lama (2013), Ramli et. al., (2019); Dey et. al., (2018) and Olokoyo (2013) found that high leverage results in a lower financial performance of firms. This means that the higher the leverage, the lower the accounting performance of firms but also the higher the market value of firms. This contradiction between the results of the two separate groups of authors may be because of over-leveraged of some firms. Furthermore, Olokoyo (2018) argues that high leverage has negative impact on smaller size firms but a positive impact on bigger size firms.

2.4.2.2 Firm Age and Firm Profitability

Age of a firm refers to the time that passes by since the incorporation of the firm. There is mixed relationship between firm performance and firm age. Mature firms perform well as compared to newly established firms due to the development of goodwill over time (Haron, 2018). However, the complacency and rigidity of older firms make it difficult for them to adopt new technologies (Sharma et. al., 2003). Hence, the study employs firm age as a control variable to assess its effect on firm performance.

CHAPTER THREE

METHODOLOGY AND ORGANISATIONAL PROFILE

3.0 Introduction

The study seeks to investigate the impact of CG on the profitability of public listed firms. This chapter presents the methods used in analyzing the study. This chapter explains the justification of the study by employing the necessary and appropriate methods for estimation and analysis.

3.1 Research Design

There are numerous research designs that have been employed over the period in the literature. There have been studies adopting qualitative, other studies employing a quantitative and still others adopting mixed research design. This study adopts a quantitative research design and employs the dynamic panel data model for analyzing and interpreting the data. The study further adopts the comparative research technique to establish the cause and effect of the independent variables on the dependent variables. To examine the impact of a variable (independent variable) on another variable (dependent), quantitative analysis is the most appropriate method. This study attempts to examine the effect of CG on public listed companies over a five year time period from 2017 to 2021. The study employs a dynamic panel data model (DPD) for the analysis. This is because, the data encompasses both time series units (2017-2021) and cross-sectional units (25 companies). Also, the DPD model is suitable for analysing the dynamic relationship between dependent variable(s) and independent variables over a period of time.

To examine the impact of one variable on another variable, quantitative research is the most appropriate method. This method permits the investigation of both the direction and magnitude of the impact of the independent variables on the dependent variables. The advantages of adopting a quantitative research method include; that it is the most powerful tool for gathering empirical data for a study. Researchers are able to evaluate their hypothesis with a quantitative research design. However, results obtained from the quantitative research method are only numerical responses with little insight into the thoughts, emotions, motivations, and drivers of the group.

3.2 Population of the study

The study covers PLCs, both financial firms and non-financial firms, in Ghana. These public listed companies are those registered and listed on GSE. Hence, the targeted population includes all public listed firms. The list of the firms has been provided in the appendix.

3.3 Sampling technique and sample size

The study employs 25 PLCs over a five-year period from 2017 to 2021. I use 125 data points. This sample size is employed in order to be able to empirically examine the impact of CG variables on the performance of PLCs. Also, the availability of data informed the choice of the sample size. The period employed for the research is crucial as it is the period during which Ghana experienced the most recent financial crises due to corporate governance scandals and failures. I employed the purposive sampling method to obtain the data. The public listed companies are composed of 10 financial firms and 15 non-financial firms.

3.4 Data collection method

The study employed secondary sources of data from the GSE. Specifically, I went through the annual reports of the various public listed firms from 2017 to 2021. The documents provide valuable information about the firms and help us to sort out the CG variables, board size, independent board, independent audit committee, gender diversity and CEO duality.

The financial statements found in the annual reports of these firms provide good measures of the variables employed in the studys. The reasons for employing the information in the annual reports of these public listed firms are that these documents are audited by external auditors. This makes any information therein to be credible, accurate, and complied with the International Financial Regulation (IFR) as the reputation of these firms depends on the information. Additionally, the information is made available for approval by the shareholders of these firms. However, the annual reports of some listed firms cannot be accessed on the exchange.

The study focuses on public listed firms on the GSE as literature on public listed firms in Ghana remains scanty. Also, since public-listed companies have more responsibility to the public, they are required to uphold the trust of the public in high esteem. Hence, corporate governance in public listed firms must be taken more seriously. Therefore, it is imperative to appreciate the effect of the CG variables on the efficiency and performance of public listed companies in Ghana to contribute to knowledge and inform the stakeholders well about the need to ensure the practice of the recent corporate governance provisions.

3.5 Method of Data Analysis

3.5.1 Model Specification

The main aim of the study is to investigate the effect of the CG variables on the profitability (performance) of public listed firms. Hence, ROA, Earnings per Share and ROE are the dependent variables whereas the board size, independent board, independent audit, gender diversity and CEO duality committee are the independent variables. The study also employs control variables such as firm size and financial leverage.

The model for the estimation is specified below

$$Y_{it} = \beta_0 + \beta_1 G_{it} + \beta_2 C_{it} + \gamma_i + \delta_t + e_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (1)$$

Where Y_{it} denotes the performance variables such as ROE, ROA and TQS, G_{it} is the CG variables such as size of board, independent board of directors, independent auditor, CEO duality, gender diversity and C_{it} represents the control variables such as firm age and leverage.

γ_i is the individual specific effect, δ_t is the time specific effect and e_{it} is the residual term

The study examines four hypotheses:

$H_{1:}$ there is no significant relationship between CEO duality and the profitability of PLCs.

$H_{2:}$ there is no significant relationship between the board size and the profitability of PLCs.

$H_{3:}$ there is no significant relationship between the independent board and the profitability of PLCs.

$H_{4:}$ there is no significant relationship between the audit committee and the profitability of PLCs.

Several papers have assessed the effect of CG variables on firms' performance. However, studies on the association between CG variables and the public listed firms' performance are scanty in the literature. This study employs the panel fixed effect model for the empirical estimation and analysis.

The dynamic panel model is specified below to follow:

$$ROE_{it} = \beta_{1i} + \beta_2 ROE_{it-1} + \beta_3 CD_{it} + \beta_4 IA_{it} + \beta_5 IB_{it} + \beta_6 BS_{it} + \beta_7 FA_{it} + \beta_8 LV_{it} + \varepsilon_{it} \quad (2)$$

$$ROA_{it} = \beta_{1i} + \beta_2 ROA_{it-1} + \beta_3 CD_{it} + \beta_4 IA_{it} + \beta_5 IB_{it} + \beta_6 BS_{it} + \beta_7 FA_{it} + \beta_8 LV_{it} + \varepsilon_{it} \quad (3)$$

$$TQ_{it} = \beta_{1i} + \beta_2 TQ_{it-1} + \beta_3 CD_{it} + \beta_4 IA_{it} + \beta_5 IB_{it} + \beta_6 BS_{it} + \beta_7 FA_{it} + \beta_8 LV_{it} + \varepsilon_{it} \quad (4)$$

ROE = Return on Equity ROA = Return on Assets IA = Independent Audit Committee

TQ = Tobin's Q CD= CEO Duality IB = Independent Board BS= Board Size

FA = Firm Age LV = Leverage

β_{1i} is assumed to vary among the independent variables whereas β_2, β_3, β_4, β_5, β_6 and β_7 are assumed to be fixed for all individuals. All changes in the behavior of the individuals are assumed to be incorporated in β_{1i}, which is called the individual heterogeneity. β_{1i} is also called the fixed effects. These individual intercepts included are to control for features of individual-specific and time-invariant. The parameters β_2, β_3, β_4, β_5, β_6 and β_7 for the independent variables. The fixed effect model best suits panels that are short and wide. Hence, given that the panel is short (2017-2021) and wide (25 firms), the fixed effect model is the best and most appropriate model for this

study. Only two variables, CEO duality (CD) and independent audit committee (IA) are indicators or dummy variables.

$$CD_{it} = \begin{cases} 1 & i = 1 \\ 0 & otherwise \end{cases} \qquad IA_{it} = \begin{cases} 1 & i = 1 \\ 0 & otherwise \end{cases}$$

CEO duality is equal to 1 if there are dual leadership roles

CEO duality is zero (0) if there is no dual leadership

Independent audit committee presence indicates 1

Independent audit committee absence indicates 0

Dependent Variables: Performance Variables

$$ROE = \frac{profit\ after\ tax}{total\ equity} \qquad (5)$$

$$ROA = \frac{profit\ after\ tax}{total\ assets} \qquad (6)$$

$$TQ = \frac{market\ value\ of\ the\ firm + total\ liabilities}{total\ asset\ value + total\ liabilities} \qquad (7)$$

Independent Variables: Corporate Governance Variables

Board Size = Total number of directors on the board

Independent Board = number of independent non-executive directors divided by the overall number of directors

CEO duality = this is a dummy variable which indicates 1 the role of the CEO and the chairman of the firm is vested in one person and indicates 0 if the different persons are the CEO and the chairman

Independent auditor = this is also a dummy variable indicating 1 if the firm has an independent auditor and 0 if the firm does not have an independent auditor.

Control Variables

Firm age is the period the firm has been in operation from the year of its establishment till date

Leverage is the total debt owed by the firms measured by finding the ratio of total debts to the total assets of the firm.

3.5.2 Dynamic Panel Data Model

The nature of many economic problems are dynamic and to understand the adjustment, the panel data structure is the most appropriate. For instance, dynamic economic models involving variables such as demand, wage, employment, investment of firms all have lagged or past values as dependent variables. Panel data usually employs the within transformation in fixed effect models or differencing to deal with unobserved heterogeneity. A DPD incorporates a lagged dependent variable to permit partial adjustment mechanism for the model (Christopher, 2013). .

Only minor complications occur with the incorporation of independent variables when estimating the parameters. These complications arise due to the number of moment conditions employed in GMM estimation or the number of instrumental variables in instrumental variable estimation. In appendage, the dimensions of time in the datasets contribute to the complications in the DPD model. Panel datasets that have large T (time-series) and small N (cross-section) require more specialized techniques for estimation. However, most panel datasets have both large T and N.

The following error component model will help simplify things:

$$y_{it} = \gamma y_{i,-1} + \beta' x_{it} + \alpha_i + \varepsilon_{it} \qquad (8)$$

Where i = 1,.., n and t = 1, .., T . λ_t and α_i are the time-specific effects and unobserved individual, and ε_{it} the error term with E(ε_{it}) = 0,and E($\varepsilon_{it}\varepsilon_{js}$) = σ_{t2} if j = i and t = s, and E($\varepsilon_{it}\varepsilon_{js}$) = 0 otherwise. In a DPD model, the selection between a random-effects and a fixed-effects model has implications for estimation that are different from static model.

In a DPD model with small T and large N, fixed-effect model comes with a challenge. The challenge results due to the demeaning process creating a correlation between error and the regressors (Econometrica, 1981). The mean of the lagged dependent variable has observations 0 through T − 1 on y, and the mean error contains contemporaneous values of ∈ for t = 1 . . . T. The resulting relationship makes the estimated coefficient of the lagged dependent variable. Nickell demonstrates that the inconsistency of $\hat{\rho}$ as N → ∞ is of order 1/T, which may be quite sizable in a "small T" context. If ρ > 0, the bias is invariably negative, so that the persistence of y will be underestimated.

For reasonably large values of T, the limit of ($\hat{\rho}$− ρ) as N → ∞ will be approximately −(1 + ρ)/(T − 1): a sizable value, even if T = 10. With ρ = 0.5, the bias will be -0.167, or about 1/3 of the true value. This biasedness will not be removed even if more regressors are included. In fact, the biasedness worsens if there is a correlation between the regressors and lagged dependent variable to some extent. However, the biasedness is not as a result of an auto correlated error process, ∈ . The bias will still persist even if the error process is i.i.d. The bias will even worsen if there is an auto correlated error process due to the problem of obtaining a consistent estimate of the AR

parameters in that context. The one-way random effects model faces the same problem. By assumption, ui is found in the value of yit and, hence, the lag of yit depends ui.

To solve this problem, we should find the first difference of the original model. The first differencing gets rid of both the constant term and the individual effect:

$$\Delta yit = \rho\Delta \gamma y_{i-1} + \Delta Xit\beta_2 + \Delta\varepsilon_{it} \qquad (9)$$

Correlation still exists between the differenced of γi_{-1} and ε_{it}.

However, an instrument variables estimator replaces the individual fixed effects. Hence, from lag 2 of y, instruments are introduced for them. If $\in$ is i.i.d., t, then will be correlation between lags of y and lagged values of y. (and its difference) but uncorrelated with the composite error process. Even if we had reason to believe that $\in$ might be following an AR(1) process, we could still follow this strategy, "backing off" one period and using the third and fourth lags of y. This approach is the Anderson–Hsiao (AH) estimator.

The DPD method is usually credited to Arellano and Bond (AB) (Rev. Ec. Stud., 1991), but they in fact expanded work of Holtz-Eakin, Newey and Rosen (Econometrica, 1988). It is based on the notion that the instrumental variables approach noted above does not exploit all of the information available in the sample. By doing so in a Generalized Method of Moments (GMM) context, we may construct more efficient estimates of the dynamic panel data model.

Arellano and Bond argue that the Anderson–Hsiao estimator, while consistent, fails to take all of the potential orthogonality conditions into account. A key aspect of the AB strategy, echoing that of AH, is the assumption that the necessary instruments are 'internal': that is, based on lagged values of the instrumented variable(s). The estimators allow the inclusion of external instruments as well.

Consider the equations

$$y_{it} = Xit\beta_1 + W_{it}\beta_2 + v_{it}$$

$$v_{it} = u_i + \epsilon_{it} \qquad (10)$$

Where Xit includes strictly independent exogenous variables, Wit are preset independent variables (including lags of y) and independent endogenous variables. These independent variables may have correlation with ui. Taking first-difference of the equation gets rid of ui and its related omitted-variable bias.

The AB method, and its expansion to the 'System GMM', is an estimator is suited for situations with: 'large N, small T' panel; a linear model; a dynamic dependent variable, relying on its lags; independent endogenous variables: relating to current and past errors; individual fixed-effects; and heteroskedasticity and autocorrelation within individual units' errors. The AB estimator establishes a GMM problem whereby the model is specified as a system of equations, one per time period, and each equation has different instruments. Also, the set up each time period has different numbers of instruments. The efficiency of AB estimator improves as more orthogonal conditions exist as time passes by. However, the number of instruments produced will be quadratic in T, the

length of the time-series available. If T < 10, that may be a considerable number, but for T > 10, it may be necessary to restrict the number of lags.

A potential weakness in the AB-DPD estimator was later reported by Arellano and Bover (1995) and Blundell and Bond (1998). For variables that are near to a stochastic process, the lagged levels are poor instruments for first difference. Their dynamic model involves both lagged differences and lagged levels. Difference GMM is the original model and system GMM is the extended model. The shortcoming of the System GMM estimator includes more restrictions introduced in addition to the original conditions on y.

3.5.3 Diagnostic tests

Sargan–Hansen test is an appropriate evaluation method for DPD estimator due to the presence of instruments. In his routine, instruments can be “GMM-style" or “IV-style". The former are set up per the AB logic, introducing more lags; the latter are set up as is in the instrument matrix. System GMM estimator set up instruments as differenced equations, the level equations or both. Also, AR test is an important diagnostic in DPD estimation for autocorrelation of the errors. There should be presence of serial correlation in the residuals of the differenced equation, but if there is no serial correlation presence, the differenced residuals should not exhibit significant AR(2) behavior. If a significant AR(2) statistic is encountered, the second lags of endogenous variables will not be suitable instruments for their current values. If T is fairly large, the number of instruments will be large to match up increasing number of lags and this reduces efficiency.

3.5.4. Unit Root Tests

It is basic that a data with features of time series follow a particular stochastic and stationarity process. This is because of the fact that time series data establish historical relationships by using past data. In panel data model analysis, there are various methods for unit root tests. These methods include Breitung (2000), Levin, Lin and Chu (2002) and Im, Pesaran and Shin (2003), Augmented Dicky-Fuller Chi-Square and Philips-Perron Fisher Chi-Square. All these tests are employed in determining the stationarity of the variables.

The hypotheses for the various unit root tests are stated as follows:

Null Hypothesis: Panel data has a unit root (non-stationary)

Alternate Hypothesis: Panel data has no unit root (stationary)

However, some selected methods can be used for the tests depending on their availability and their convenience. For all methods, the tests should be statistically significant at 1%, 5% or 10% for the null hypothesis to be rejected. Nevertheless, when the probability value of the tests are greater than all the significance levels, then the null hypothesis cannot be rejected. Those methods with a greater number of statistical significance should be used to make the decision. For example, given that three methods were employed in the unit root tests and two methods proved that there is the statistical significance of the variable, then their results override the only one method that reports there is no statistical significance.

3.6 Profile of study of the organization/area

The research covers public listed companies in Ghana. In appendage, the study consider certain corporate governance variables and their relationship with performance of public listed companies. The selected indicators to represent the CG variables are in line with the most recent revised corporate governance provisions and well informed by the literature.

Similarly, the performance indicators: ROA, ROE and Tobin's Q, are carefully selected based on literature on the relationship between CG and firms performance. Also, ROE and Earnings per Share are very important to investors and, hence, the profitability of public listed companies proxied by ROE, ROA and TQ serve as good information to these investors.

3.6.1 Corporate Governance in Ghana

In 1963, Ghana's Companies Code introduced a CG regime to regulate the formation and operation of firms in Ghana. The corporate governance regime's provisions are largely based on Common Law in England and similar to the 1964 Companies Act in the UK. In 993, the Securities Industry Law created the SEC in Ghana in line with the provisions of the corporate governance provisions. The main purpose of establishing the SEC was to supervise the control of firms and stock exchanges in Ghana. Also, the listing rules on the GSE have helped to regulate the firms and develop a good CG system in Ghana. Nevertheless, the CG requirements in the listing rules of the GSE and the SECG regulations were confined only to the audit committees.

According to the Listing Regulation LI 1509 of the GSE 1990, companies were required to submit, as part of the procedures for listing on the Exchange, a document specifying the operation, existence, and effectiveness of the audit committee. Similarly, SECG has made it compulsory that firms submit yearly operation and effectiveness of the audit committee. Moreover, the listing rules of GSE failed to stipulate the number of non-executive boards and their qualifications (GSE, 1990). Therefore, the requirements were narrower (Owusu and Weir, 2013) and making enforcement relatively weaker than in other countries exposing the deficiencies in the provisions of the Ghanaian Code (ROSC, 2004).

Ghana introduced a new governance code in 2003 to provide formal procedures for corporate governance practices. This new code mandates the firms to adopt the elements of the code or explain the reasons for rejecting the code's specific elements. Accompanying the annual report of the firm should include a statement presented by the board explaining how they have adopted the provision of the CG in the code. Contrary to the GSE listing rules and SECG regulations, this new code extended the onerous focus on audit committee to include thirty-three (33) provisions encompassing all the six corporate governance areas: audit committee, board composition, disclosure practices, financial affairs, remuneration committee, and auditing and shareholder rights. Moreover, the code recommends that firms should have at least three audit committees on the board with the most proportion being non-executive directors. Additionally, the code further recommends that these non-executive directors who should represent the audit committee must have adequate knowledge about finance. This code, as a result, significantly broadened the CG structure in Ghana.

The six broad areas of governance in Ghana's code are consistent with the corporate governance principles of the OECD (OECD, 2004). In fact, most developing countries set their corporate governance codes in accordance with the OECD principles (McGee, 2010). Also, the Ghanaian code is in accordance with the recent governance framework set out by the UK for their firms which encompasses the Chair of the board, the effectiveness of the board, the accountability of the board, the setting of remuneration and the board's relationship with shareholders.

In 2019, there was a passage of new Companies Act (Act 992) together with directives from the SEC, BOG and the Registrar of Companies to introduce an innovative way of corporate management in Ghana. The new corporate governance system came with an additional regulatory system and incorporated technology in regulatory matters. Other new regulations include recognizing the minority shareholders' rights, the appointment criteria and duties of the directors, the appointment criteria, qualification, and duties of company secretaries, the ownership criteria, and major transactions as well as the extensions in the names of the companies (Chambers and Partners, 2022).

In the new Act 992, the registration and regulations of firms in Ghana have been handed to the newly established office of the Companies Registrar. Also, the Companies Registrar doubles as a Liquidator of companies as well as provides guidelines for the conduct of operations of firms in Ghana. There is now a virtual registration of companies, reservation of names, conversion of companies and filing of particulars. There will be no certification to start a business but only the issuance of a certificate of incorporation. This is to simplify the process of registration. Hence, no

minimum capital requirement would be needed from a firm before the business commences. Nevertheless, companies with foreign participation would still be required to comply with the rules of GIPC.

Companies in the new Act 2019 can be registered even with no accompanying constitution or regulation except for unlimited companies. Companies registered with the new Act must have the following suffixes such as (Limited Company or LTD, Limited by Guarantee or LBG, Public Unlimited Company or PUC, Private Unlimited Company or PRUC, Public Limited Company or PLC) added to their names to give them identity and indicate the kind of relationship they have with their stakeholders. That is, the purpose is to help for easy identification of the types of business firms do and to advise the public to know who they are dealing with.

Similarly, Act 992 has further raised the criteria, duties, and liabilities of persons appointed as directors of companies. This has increased the integrity, diligence, and competence of the directors in the conduct of their duties with the companies. There shall be a statutory declaration included in the application for incorporation of firms by directors to show they are clean of any criminal charges leveled against them in the past 5 years. The criminal charges include dishonesty or fraud, or relating to incorporation, promotion, or management of a company or declaration of insolvency or whether they have the particulars and date of the insolvency.

Also, the position of the company's secretary has been enhanced through the qualifying criteria with a higher level of educational qualification and acquired experiences in that position. Under

the Act, Company Secretary is required to be appointed by the companies based on the qualification requirements in the Act.

One unprecedented provision of CG code in the Act is the introduction of 'Beneficial Ownership'. This provision is to help identify the exact owners and controllers of the affairs of the companies. This provision has further improved the transparency in the profiling of companies. Moreover, unlike hitherto, shareholders have to approve decisions by the board before they can be implemented. The idea, inter alia, is to improve corporate accountability, minimize losses and protect the assets of companies. Minority shareholders have been given the right to ensure the accountability of the directors at law court through a derivative.

The Act has improved the process of auditing by requiring companies auditing to be done in relation to the standards of the International Financial Reporting Standard. Also, companies are required to not use the same auditors for more than six consecutive years. However, the auditor is eligible for appointment again after a period of at most six years. The new law has given the shareholders some power to influence the major transactions the companies will undertake. In situations of procurement, acquisitions or purchases, dispositions (transfer, gifting, or selling), and transactions that will affect the rights and interests of the companies. This provision is to deny the board of directors of absolute authority to enter into any major transactions without the prior consent of the shareholders. This new provision, as a result, strengthens the democracy of shareholders. Also, shareholders are empowered to ensure their companies' rights through derivative actions.

Moreover, the new provision has improved upon the protection of minority shareholders. This protection is provided through the buy-out of dissenting shareholders. This new provision minimizes dissention in a company and grants relief to minority shareholders against oppression.

Any person who subscribes to the shares of a company is required to be 18 years and above. However, persons below 18 years can subscribe to share in a company only if those shares are held in trust for them and that there are deeds to confirm for either share incorporation or transfer.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter presents the empirical results of the study. The results of the study are presented in chronological order. Firstly, I presented the summary statistics followed by unit root tests to assess the stationarity of the variables. In addition, I presented the empirical results from the dynamic panel data model of analysis and the associated diagnostic tests.

4.1 Summary Statistics

The table 1 below introduces the descriptive statistics of the variables employed in the study. The total sample of 125 was employed for the panel of 25 cross-section units (25 public listed companies) and 5 time series units (2017-2021). From the results in the table above, firm age (FA) has the highest mean value of 32.74400 whereas ROA has the least mean value of 0.049201. FA has the highest maximum value of 70.0000 whereas CEO Duality (CD) and IA have the lowest minimum value of 1.0000. Similarly, BS has the highest minimum value of 2.00000 whereas IB, IA, LV and CD have the lowest minimum values of 0.0000. Moreover, FA has the highest standard deviation of 19.52909 whereas TQ has the lowest standard deviation of 0.138123.

Table 1: Summary Statistics

	BS	CD	LV	ROE	TQ	FA	IB	IA	ROA
Mean	9.148664	0.072000	0.169337	0.228717	0.610344	32.74400	0.615501	0.976000	0.049201
Median	9.000000	0.000000	0.080000	0.152000	0.582000	29.00000	0.600000	1.000000	0.032000
Maximum	17.00000	1.000000	1.386000	7.690000	1.160000	70.00000	12.00000	1.000000	7.690000
Minimum	0.583000	0.000000	0.000000	1.722000	0.003000	2.000000	0.000000	0.000000	-1.722000
Std. Dev.	3.065262	0.259528	0.225877	0.909431	0.138123	19.52909	1.071413	0.153665	6.220533
obsevations	125	125	125	125	125	125	125	125	125

Note: CD denotes CEO Duality, BS denotes Board Size, LV is core Leverage,, IA is Independent Auditor, IB is Independent Board and FA represents firm age.

4.2 Panel Unit Root Tests

To conduct efficient, consistent and reliable econometric estimation and analysis, the stationarity of the variables employed in the study must be established. That is, stationary variables avoid spurious regression in econometric estimation. Therefore, unit root tests are applied to the variables to examine their stationarity. For a panel data model, the Levin, Lin and Chu t, PP-Fisher Chi-squarem, Shin W-stat and Breitung ADF-Fisher Chi-square and Im, Pesaran and t-stat unit root tests were employed for the tests. From table 2, it is evident that all the five tests confirm the stationarity of the variables including ROE, IB and BS at the levels I (0). Similarly, four tests, except Breitung t-stat, confirm the stationarity of the variables including TQ, ROA and LV at the

levels I (0). However, FA is non-stationary at the levels as three of the tests, except PP-Fisher Chi-square and Levin, Lin &Chu t, report statistical insignificance. Hence, FA was differenced and unit root test was conducted. The unit root tests report stationarity of FA at first difference [1(0)].

Table 2: Panel Unit Root Tests

TEST	BS	FA	DFA	ROE	TQ	IB	LV	ROA
L,L&C	-17.290***	-8.790***	-8.493***	-22.648***	-655.595***	-52.2143***	-16.003***	-63.593***
ADF-F	85.98***	4.392	6.668**	87.786***	81.6274***	85.5372***	75.102***	77.009***
PP-F	84.5859***	8.658***	7.120**	147.535***	0.0000***	124.629***	125.212***	120.195***
Im. P&SW	-6.069***	-0.886		-4.684***	-29.3079***	-8.21652***	-2.938***	-5.595***
Bret. Test	-0.235***	-1.000		-0.350***	0.90693	-0.21439**	6.037	1.303

Note: *** and ** denote a 1% and 5% statistical significance respectively. L. L &C denotes Levin, Lin &Chu t, ADF-F denotes Augmented Dicky-Fuller Fisher test, PP-F denotes Phillips-Perron Fisher test, Im P& SW denotes Im, Pesaran and Shin W-stat, and Bret. Test denotes Breitung t-stat FA firm age at the levels and DFA first difference of firm age.

4.3 Empirical Results

Table 3 above presents the estimable results of the dynamic panel model the table shows results for the three performance variables, ROA, ROE, and TQ. Considering ROA, public listed companies' performance [ROA(-1)] in the previous period has a significant negative effect on current performance (ROA), all else equal. ROA in the previous year has a -0.410838 impact on current ROA, all else equal.

Table 3: DYNAMIC PANEL MODEL ESTIMATION

Variables	TQ	Std. Error	P-Value	ROE	Std. Error	P-Value	ROA	SE	P-Value
(-1)	0.0087	0.0206	0.6721	-0.4588	0.0553	0.0000	-0.4108	0.0837	0.0000
BS	0.0103	0.0097	0.2931	0.0084	0.0143	0.5594	-0.0030	0.0024	0.2161
IB	0.0185	0.0228	0.4195	-0.0176	0.0816	0.8296	-0.0360	0.0221	0.1074
DFA	0.0066	0.0006	0.0000	-0.0035	0.0018	0.0550	-0.0002	0.0003	0.5974
CD	0.0240	0.0032	0.0000	0.0432	0.0038	0.0000	0.02418	0.0009	0.0000
LV	-0.0113	0.0418	0.7883	-0.4588	0.0553	0.0000	-0.4108	0.0430	0.3560
IA	-0.0168	0.0219	0.6721	-1.1805	0.1477	0.0000	0.0314	0.0221	0.4032

Note: (-1) is the lag of the dependent variable, CD denotes CEO Duality, BS denotes Board Size, LV is core Leverage, IA is Independent Auditor, IB is Independent Board and FA represents Firm age.

Regarding the independent variables, board size has a negative effect son ROA or profitability of public listed firms. Specifically, board size negatively affects ROA of about 0.0038. However, the effect of board size on ROA is statistically insignificant. Independent board in public listed firms negatively affects the ROA of the firms. Specifically, the profitability (ROA) of the firms falls by 0.0360 when the number of independent executives on the boards increases by one member, all else equal. However, the negative effect of independent board on ROA is statistically insignificant. The presence of independent auditor has positive effect on the ROA of public listed firms.

Specifically, the presence of independent auditor has a significant effect of 0.0314 on ROA of public listed firms in Ghana, all else equal. Similarly, the presence of dual leadership in public listed firms has significant positive effect on the ROA of these firms. This outcome agrees with the findings of Brickley et. al., (1997); Dahya et al. (1996). Given the presence of CD, ROA increases by 0.024176, all else equal. This could be that the presence of CD in public listed firms reduces the costs and expenses to be incurred in two-tier leadership style. The reduction in the costs and expenses by acquiring only one office and imposing the dual role of CEO and board chairman in one person improves the profitability (ROA) of public listed companies.

Regarding the control variables, both firm age and leverage have negative impact on ROA. Firm age negatively affects the performance of the public listed firms by about 0.0002 whereas leverage negatively affects the firms' performance by about 0.4108, all else equal. However, neither leverage nor firm age has a significant effect on the ROA of PLCs.

Similarly, the table presents the results of ROE from the dynamic panel model estimation. In the table, it is reported that the profitability in the previous year [ROE(-1)] has a significant negative effect on current ROE of PLCs at 1% significance level. It is reported that the current performance of the public listed firms increases by 0.458825 given that past performance of the firms fell by I unit, all else equal.

Regarding the independent variables, only independent audit and CEO duality have significant impact on performance (ROE) of public listed firms. Board size has insignificant positive impact on the profitability (ROE) of public listed firms in Ghana. Specifically, an increase in the number of members on the board affects the profitability of the firms to also increase by 0.0084, all equal. Independent board has insignificant negative impact of -0.0176 on the ROE of public listed firms. Specifically, the presence of independent audit committee has significant (1%) negative impact on ROE of the firms. This finding is agrees with the outcomes of Abbott (2002) and BOG (2018). Specifically, IA has -1.180545 significant impact on ROE, all else equal. This implies the presence of an independent audit committee will affect the performance (ROE) of the public listed companies to fall by 1.180545. This may be caused by increased expenses on commissions, fees, bonuses and allowances given to these external auditors. These remunerations bloat the costs of the firms affecting the profit margin to fall. CD has significant (1%) positive impact on ROE. This outcome agrees with the finding of Brickley et. al., (1997); Dahya et al. (1996). Similarly, the presence of dual leadership in public listed companies affects the profitability (ROE) of the companies to increase by 0.043246, all else equal. This implies that the presence of dual leadership into one person minimizes the expenses in terms of remunerations that could have been spent on two offices occupied by two persons. Hence, this helps to reduce the costs and improves upon the profit margin of the companies.

Considering the control variables, both firm age and leverage have significant negative impact on the ROE of public listed firms in Ghana. Firm age affects the ROE of public listed firms by about -0.0035 at a 10% significance level. This outcome agrees with the findings of Sharma et. al.,

(2003). This implies that as the age of the firms increase, the profitability or performance of the firms will fall by 0.0035 per year.

Similarly, leverage affects the ROE of the firms by about -0.4588 at a 1% significance level. This outcome agrees with the results of Ahmed et. al., (2018) who studied the impact of financial leverage on firms' performance. This implies that the more levered public listed firms are, the lower their profitability or performance. This may be caused by increased cost of debts which eventually will affect the profit margin (ROE) of the firms.

Similarly, the table presents the results for TQ performance variable. The past value of TQ [TQ(-1)] has an insignificant impact of 0.0087 on the current TQ, all else equal. This implies that an increase in performance [TQ(-1)] will cause the current performance (TQ) of the firms to also increase, even though it is insignificant.

Among the independent variables, all variables have positive impact on the firm performance (TQ) except IA. However, only CD is statistically significant at 1%. Both board size and board independence have insignificant positive impact on TQ of the firms. Specifically, whereas board size has 0.0103 impact on TQ of the firms, board independence has 0.0185 impact on the TQ of the firms, all else equal. Similarly, IA has insignificant negative impact on the TQ of public listed firms in Ghana. Specifically, whereas IA has -0.0168 impact on TQ of the firms, all else equal.

However, CD has significant positive impact of 0.0032 on TQ, all else equal. This finding agrees with the findings of Brickley et al. (1997); Dahya et al. (1996). This implies that the presence of CD affects the profitability of the PLCs to increase by 0.0032, all else equal.

Considering the control variables, whereas FA has positive impact on TQ of PLCs, LV has negative impact on TQ of PLCs. However, only the FA is statistically significant at 1% significance level. This outcome agrees with the findings of (Mousa et al., 2012). FA has about 0.066 significant impact on firm performance, all else equal. This implies that as the age of the firms increase, there will be an improvement on their profitability or performance by 0.066 per year. This can be attributed to the experiences the firms may have acquire as they age in the business they are engaged in.

Table 4: Diagnostic Tests

		Return-On-Asset (ROA)		
Test Order	m-Statistic	rho	SE(rho)	Prob.
AR(1)	-0.984179	-0.789224	0.801910	0.3250
AR(2)	-0.299195	-0.045805	0.153093	0.7648
		Tobin's Q		
AR(1)	-1.498195	-0.450856	0.300933	0.1341
AR(2)	-1.551995	-0.018440	0.011882	0.1207
		Return-On-Equity (ROE)		
AR(1)	-1.213205	-46.697986	38.491413	0.2251
AR(2)	-0.776829	-6.737438	8.672996	0.4373

Table 3 reports the diagnostic tests for the DPD model analysis. The results for both the AR(1) and AR(2) are reported for all the three performance variables. From the results, both AR(1) and AR(2) have p-values of greater than 0.05 and 0.1 for all the performance variables. This is an

indication of the absence of serial correlation in the residuals. This indicates that the results obtained by employing the dynamic panel data model are consistent and reliable.

CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.0 Introduction

This chapter presents the summary of the study and major conclusions from the entire study. Also, this chapter presents the recommendations for policy-making based on the results from the study.

5.1 Summary of findings

The main purpose of this study is to examine the impact of CG on the profitability of PLCs in Ghana. To achieve this objective, the study employs corporate governance variables such as CD, IAC, independent board and board size and performance variables including ROA, ROE and TQ for the analysis. The study further employs the dynamic panel data model on 125 observations encompassing 5-year time periods (2017-2021) and 25 public listed firms.

The study adopts three stages in order to empirically examine the relationship between the CG variables and performance of firms. Firstly, the study employed the panel unit root tests to establish the stationarity of the variables for consistent and efficient econometric estimation and analysis.

Secondly, the study employed the dynamic panel data model estimation technique to examine the relationship between CG and the profitability of PLCs. Finally, I employed the Arellano Bound diagnostic tests to examine the presence of serial correlation in the DPD model.

5.2 Conclusions

The main aim of this study is to examine the effect of CG on the profitability of public listed firms. CG has become one of the most discussed issue in recent years in Ghana. This is due to the recent crises in various sectors including the financial sector and the productive sector in the country. Therefore, the corporate governance provisions have been reviewed and new additions made to the old ones in the Corporate Governance Act 2019. This will further minimize corporate fraud and scandals in companies and protect the interests of depositors, investors, and stakeholders.

In public listed companies, corporate governance issues are considered more serious as the firms have a greater responsibility to the public. The requirements of CG in public listed companies are more intensive and extensive. Therefore, it is very important for stakeholders of these public listed firms to understand the relationships that exist between corporate governance variables and the profitability of these firms. To achieve this purpose I employed CG variables such as board size, board independence, independent auditor, and CD and examined their effect on performance variables such as TQ, ROE, and ROA of public listed firms. The study employed the dynamic panel data method of analysis to investigate the relationship.

From the results, it is reported that there is a significant relationship between past performance [ROA(-1)] and the current ROA of PLCs in Ghana. Specifically, ROA (-1) has a -0.4108 significant impact on ROA. Similarly, there is a significant impact of [ROE(-1)] of -0.4588 on the current ROE of PLCs. However, there is an insignificant impact of the past performance of [TQ(-1)] of 0.0087 on the current performance (TQ) of PLCs in Ghana.

In addition, the table reports a significant impact of CD (0.024176) on the ROA of firms. However, independent auditor (0.0314), board size (-0.0030) and independent board (-0.0360) have insignificant impact on ROA of these firms. Similarly, there is a significant impact of CEO duality (0.043246) and independent auditor (-1.180545) on the ROE of the firms. However, board size and the independent board has a respective insignificant impact of 0.0084 and -0.0176 on the ROE of the public listed firms in Ghana. In appendage, only CEO duality has significant impact (0.0032) on the Tobin's Q of the firms. However, there is an insignificant impact of board size (0.0103), independent auditor (-0.0168) and independent board (0.0185) on TQ of public listed firms in Ghana.

5.3 Recommendations

The following are some of the recommendations based on the findings for informed policymaking;

Corporations, especially public listed firms, should increase the number of independent directors on their board. This would help bring diversity in experience, expertise and knowledge to the

governance of the corporation. The presence of independent board of directors attracts lucrative investment funds for the firms which can help expand firms' businesses.

Public listed firms should be prudent in seeking the expertise of independent auditors in examining their periodic reports. The appointment of an independent auditor comes with expensive remunerations and fees which affect public listed firms' profitability. Hence, firms must balance between seeking a reputable independent auditor and minimum cost of remunerations.

Public listed firms should identify and acquire a less costly debt for their financing, operation and investment activities. This would help minimize the negative impact on both their market value and the returns to equity holders.

Policymakers should ensure firms especially publicly listed firms adhere to the new corporate governance principles.

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APPENDIX

f_id	FIRMS	ROA	ROE	TQ	IA	CD	IB	BS	LV	FA	year
1	ACCESS	0.009	0.063	0.003	1	0	0.75	8	0.107	8	2017
1	ACCESS	0.014	0.079	0.549	1	0	0.75	8	0.085	9	2018
1	ACCESS	0.037	0.216	0.525	1	0	0.75	12	0.082	10	2019
1	ACCESS	0.041	0.229	0.55	1	0	0.714	7	0.075	11	2020
1	ACCESS	0.043	0.236	0.55	1	0	0.714	7	0.105	12	2021
2	ADB	1	0.06	0.536	1	0	0.706	17	0.129	52	2017
2	ADB	0.16	0.92	0.552	1	0	0.778	9	0.076	53	2018
2	ADB	0.32	1.87	0.547	1	0	0.75	8	0.741	54	2019
2	ADB	1.14	7.69	0.587	1	0	0.8	10	0.055	55	2020
2	ADB	0.0001	0.121	0.635	1	0	0.8	10	0.046	56	2021
3	AFB	0.046	0.123	0.561	1	0	0.667	12	0.559	8	2017
3	AFB	0.021	0.213	0.526	1	0	0.8	10	0.532	9	2018
3	AFB	0.021	0.213	0.526	1	0	0.667	12	0.046	10	2019
3	AFB	0.046	0.123	0.561	1	0	0.667	12	0.556	11	2020
3	AFB	0.023	0.215	0.536	1	0	0.8	10	0.526	12	2021
4	AGA	-0.024	-0.063	0.615	1	0	0	4	0.309	13	2017
4	AGA	0.023	0.051	0.627	1	0	0	4	0.288	14	2018
4	AGA	-0.001	-0.003	0.621	1	0	0	4	0.189	15	2019
4	AGA	0.127	0.26	0.661	1	0	0	3	0.252	16	2020
4	AGA	0.081	0.159	0.671	1	0	0	3	0.24	17	2021
5	CAL	0.036	0.228	0.85	1	0	12	0.583	1.386	28	2017
5	CAL	0.028	0.197	0.925	1	0	0.6	10	0.538	2	2018
5	CAL	0.025	0.178	1.16	1	0	0.643	14	0.187	30	2019
5	CAL	0.027	0.189	0.538	1	0	0.75	12	0.265	31	2020
5	CAL	0.022	0.173	0.543	1	0	0.636	11	0.854	32	2021
6	CMLT	0.055	0.142	0.664	1	0	0.25	7	0.029	40	2017
6	CMLT	0.006	0.015	0.665	1	0	0.25	7	0	41	2018
6	CMLT	0.014	0.05	0.559	1	0	0.25	7	0.42	42	2019
6	CMLT	0.016	0.096	0.532	1	0	0.5	7	0.673	43	2020
6	CMLT	0.01	0.077	0.521	1	0	0	7	0.659	44	2021
7	DIGCUT	0.374	0.631	0.721	1	0	0	6	0.231	7	2017
7	DIGCUT	-0.134	-0.194	0.764	1	0	0	6	0.149	8	2018
7	DIGCUT	-0.188	-0.307	0.721	1	0	0	4	0.173	9	2019

7	DIGCUT	-0.121	-0.231	0.679	1	0	0	4	0.185	10	2020
7	DIGCUT	-0.032	-0.062	0.672	1	0	0	3	0.191	11	2021
8	ECO	0.028	0.245	0.53	1	0	0.727	11	0.022	28	2017
8	ECO	0.033	0.256	0.534	1	0	0.786	14	0.02	29	2018
8	ECO	0.034	0.249	0.536	1	0	0.636	11	0.004	30	2019
8	ECO	0.034	0.225	0.542	1	0	0.75	16	0.003	31	2020
8	ECO	0.032	0.217	0.54	1	0	0.636	11	0.035	32	2021
9	EGL	0.094	0.241	0.723	1	1	0.7	10	0.066	9	2017
9	EGL	0.074	0.112	0.636	1	1	0.889	9	0.081	10	2018
9	EGL	0.075	0.17	0.633	1	1	0.667	9	0.034	11	2019
9	EGL	0.084	0.192	0.64	1	1	0.6	10	0.042	12	2020
9	EGL	0.057	0.146	0.619	1	0	0.6	10	0.018	13	2021
10	ETI	0.01019	0.116	0.52544	1	0	0.85714	14	0.07707	32	2017
10	ETI	0.03186	0.178	0.5209	1	0	0.85714	14	0.09121	33	2018
10	ETI	0.01163	0.14579	0.09803	1	0	0.92308	13	0.00351	34	2019
10	ETI	0.0034	0.04356	0.52034	1	0	0.85714	14	0.07414	35	2020
10	ETI	0.0034	0.04356	0.52034	1	0	0.85714	14	0.07414	36	2021
11	FML	0.159	0.212	0.793	1	0	0.625	8	0	55	2017
11	FML	0.04	0.055	0.78	1	0	0.75	12	0	56	2018
11	FML	0.067	0.096	0.764	1	0	0.667	9	0.011	57	2019
11	FML	0.001	0.002	0.712	1	0	0.571	7	0.002	58	2020
11	FML	0.233	0.054	0.638	1	0	0.6	5	0.009	59	2021
12	GCB	0.024	0.193	0.534	1	0	0.533	15	0.1	64	2017
12	GCB	0.03	0.225	0.536	1	0	0.615	13	0.032	65	2018
12	GCB	0.034	0.24	0.538	1	0	0.667	12	0.037	66	2019
12	GCB	0.027	0.193	0.876	1	0	0.571	14	0.05	67	2020
12	GCB	0.031	0.212	0.54	1	0	0.8	10	0.054	68	2021
13	GGBL	0.043	0.026	0.673	1	0	0.714	14	0.406	26	2017
13	GGBL	0.044	0.081	0.684	1	0	0.778	9	0.199	27	2018
13	GGBL	0.027	0.06	0.648	1	0	0.75	8	0.166	28	2019
13	GGBL	0.017	0.04	0.634	1	0	0.778	9	0.152	29	2020
13	GGBL	0.081	0.192	0.633	1	0	0.5	10	0.123	30	2021
14	GOIL	0.063	0.177	0.608	1	0	0	16	0.05	57	2017
14	GOIL	0.061	0.2	0.591	1	0	0	9	0.101	58	2018
14	GOIL	0.053	0.177	0.587	1	0	0	9	0.111	59	2019
14	GOIL	0.043	0.15	0.583	1	0	0	10	0.117	60	2020
14	GOIL	0.085	0.315	0.578	1	0	0	10	0.089	51	2021
15	HORDS	0.041	0.047	0.882	1	1	0.4	5	0.007	18	2017
15	HORDS	0.056	0.068	0.851	1	1	0.4	5	0.007	19	2018
15	HORDS	0.07	0.077	0.917	1	1	0.4	5	0.01	20	2019
15	HORDS	0.035	0.036	0.967	1	1	0.6	5	0.067	21	2020
15	HORDS	0.023	0.024	0.964	1	1	0.6	5	0.007	22	2021
16	MAC	0.01	0.02	0.668	1	0	0.4	5	0.49	3	2017

16	MAC	0.045	0.092	0.659	1	0	0.4	5	0.505	4	2018
16	MAC	0.041	0.088	0.653	1	0	0.5	4	0.517	5	2019
16	MAC	0.01	0.022	0.657	1	0	0.5	4	0.545	6	2020
16	MAC	0.01	0.022	0.657	1	0	0.5	4	0.545	7	2021
17	MLC	-0.446	-0.089	0.667	1	0	0.12	9	0.036	47	2017
17	MLC	-0.045	-0.096	0.654	1	0	0.5	8	0.175	48	2018
17	MLC	-0.06	-0.098	0.72	1	0	0.625	8	0.085	49	2019
17	MLC	0.123	0.327	0.645	1	0	0.12	9	0.036	50	2020
17	MLC	0.045	0.096	0.651	1	0	1.625	8	0.085	51	2021
18	MTN	0.207	0.383	0.686	1	0	0.54	7	0.098	21	2017
18	MTN	0.179	0.313	0.7	1	0	0.778	9	0.08	22	2018
18	MTN	0.002	0.359	0.582	1	0	0.75	8	0.491	23	2019
18	MTN	0.098	0.418	0.567	1	0	0.8	10	0.02	24	2020
18	MTN	0.114	0.459	0.571	1	0	0.8	10	0.011	25	2021
19	RB	0.221	0.192	0.531	1	0	0	10	0.007	27	2017
19	RB	0.01	0.056	0.548	1	0	0	8	0.038	28	2018
19	RB	0.024	0.136	0.547	1	0	0	10	0.019	29	2019
19	RB	0.015	0.089	0.547	1	0	0	9	0.032	30	2020
19	RB	0.021	0.124	0.547	1	0	0	9	0.032	31	2021
20	SCB	0.054	0.308	0.553	1	0	0.4	10	0.018	21	2017
20	SCB	0.035	0.201	0.548	1	0	0.444	9	0.722	22	2018
20	SCB	0.037	0.242	0.541	1	0	0.545	11	0.036	23	2019
20	SCB	0.06	0.326	0.55	1	0	0.556	9	0.011	24	2020
20	SCB	0.043	0.266	0.544	1	0	0.545	11	0.024	25	2021
21	SIC	-0.059	-0.191	0.591	1	0	0.778	9	0.216	62	2017
21	SIC	-0.086	0.152	0.666	1	0	0.778	9	0.04	63	2018
21	SIC	0.0161	0.029	0.649	1	0	0.778	9	0.004	64	2019
21	SIC	0.0135	0.03	0.164	1	0	0.778	9	0.216	65	2020
21	SIC	0.047	0.093	0.669	1	0	0.778	9	0.093	66	2021
22	SOGEGH	0.032	0.174	0.551	1	0	0.501	14	0.037	42	2017
22	SOGEGH	0.018	0.088	0.557	1	0	0.417	12	0.04	43	2018
22	SOGEGH	0.029	0.16	0.55	1	0	0.818	11	0.04	44	2019
22	SOGEGH	0.03	0.1667	0.55	1	0	0.778	9	0.072	45	2020
22	SOGEGH	0.029	0.16	0.552	1	0	0.23	11	0.04	46	2021
23	TO	-0.017	-0.069	0.57	1	0	0.4	10	0.327	17	2017
23	TO	0.008	0.029	0.579	1	0	0.3	10	0.302	18	2018
23	TO	-0.204	-1.722	0.532	1	0	0.273	11	0.37	19	2019
23	TO	-0.186	5.817	0.492	1	0	0.2	10	0.484	20	2020
23	TO	0.015	0.173	0.561	1	0	0.2	10	0.46	21	2021
24	TOTAL	0.045	0.202	0.563	1	0	0.667	9	0.085	66	2017
24	TOTAL	0.051	0.228	0.563	1	0	0.889	9	0.087	67	2018
24	TOTAL	0.078	0.273	0.584	1	0	0.8	10	0.083	68	2019
24	TOTAL	0.135	0.322	0.633	1	0	0.889	9	0	69	2020

24	TOTAL	0.106	0.258	0.639	1	0	0.889	9	0	70	2021
25	UNIL	0.103	0.399	0.574	0	0	0.778	9	0.006	25	2017
25	UNIL	0.263	0.647	0.627	0	0	0.3	10	0.005	26	2018
25	UNIL	-0.281	-1.361	0.548	0	0	0.417	12	0.006	27	2019
25	UNIL	-0.15	-1.448	0.527	1	0	0.6	10	0.005	28	2020
25	UNIL	0.003	0.035	0.527	1	0	0.6	10	0.005	29	2021

LIST OF TABLES

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LIST OF ABBREVIATIONS

CD	CEO Duality
PLCs	Public Listed Companies
ROA	Return On Assets
ROE	Return on Equity
TQ	Tobin's Q
DPD	Dynamic Panel Data
CG	Corporate Governance
IAC	Independent Audit Committee
AR	Autoregressive
FA	Firm Age
LV	Leverage
ADF	Augmented Dicky Fuller
PP	Phillips Perron
BS	Board Size
GMM	Generalized Method of Moments