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CORPORATE GOVERNANCE COMPLIANCE AND STOCK MARKET PERFORMANACE OF LISTED FIRMS IN GHANA, THE ROLE OF SUSTAINABILITY DISCLOSURE

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MASTER OF PHILOSOPHY

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(Accounting)
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NOVERMBER, 2023

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DECLARATION

STUDENT'S DECLARATION

I, Debora Beverlyn Kwaah hereby declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged is entirely my own original work, and that it has not been submitted, either in part or whole, for another degree elsewhere.

Signature ………..……………………

Date …………………..………………

SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this thesis was done in accordance with the guidelines for supervision of thesis laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: DR RICHARD ODURO

SIGNATURE: ……………………………………………

DATE: ………………………………................………

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DEDICATION

To my husband, Mr. Isaac Bazie and my lovely daughters.

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ACKNOWLEDGEMENT

My sincere gratitude goes to my supervisor, Dr Richard Oduro. who provided an immeasurable assistance in guiding me through the completion of this research. I cannot forget to thank my family, friends and colleagues for their moral support, and all those who helped me in diverse ways to successfully complete this thesis.

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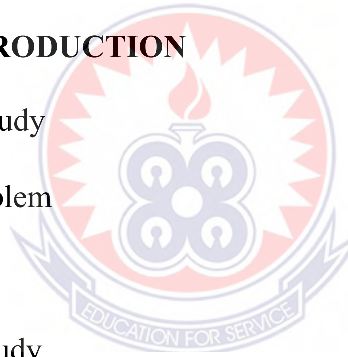

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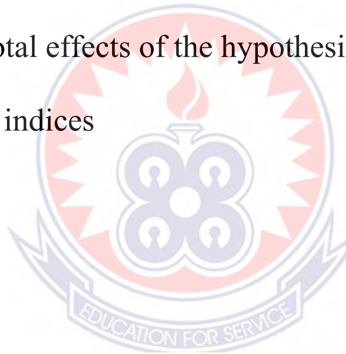

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ABBREVIATIONS

CFA	Confirmatory Factor Analysis
GSE	Ghana Stock Exchange
SDI	Sustainable Development Index
UNFCCC	United Nations Framework Convention on Climate Change
ESG	Environmental, Social, and Governance
CSR	Corporate Social Responsibility
OECD	Organization for Economic Co-operation and Development
GRI	Global Reporting Initiative
SASB	Sustainability Accounting Standards Board
ROE	Returns on Equity
MCCG	Malaysian Code on Corporate Governance
EPS	Earnings Per Share
PER	Price-earnings Ratio
PEG	Price-earnings Ratio to Growth Rate
PBR	Price to Book Value Ratio
DPR	Dividend Payout Ratio
DYR	Dividend Yield Rate
BS	Board Size
BC	Board Composition
NC	Number of Standing Committees Operated by the Board
CGCS	Compliance with Codes on Corporate Governance
SD	Sustainability Disclosure
CB-SEM	Co-variance-Based - Structural Equation Modeling
PLS-SEM	Partial Least Squares - Structural Equation Modeling

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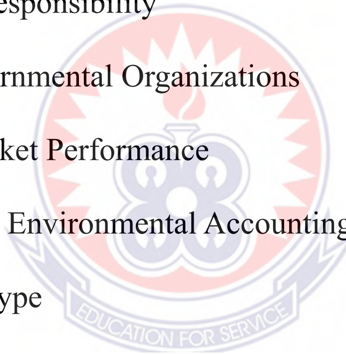
VAF	Variance Account for
CR	Composite Reliability
AVE	Average Variance Extracted
SFL	Standard Factor Loading
HTMT	Heterotrait-Monotrait Ratio of Correlations
ECP	Economic Performance
ENP	Environmental Performance
LBP	Labour Practice and Decent Work
HUR	Human Right
SOC	Society
PDR	Product Responsibility
NGO	Non-Governmental Organizations
SMP	Stock Market Performance
SEA	Social and Environmental Accounting
IT	Industry Type
FS	Firm Size
FA	Firm's Age



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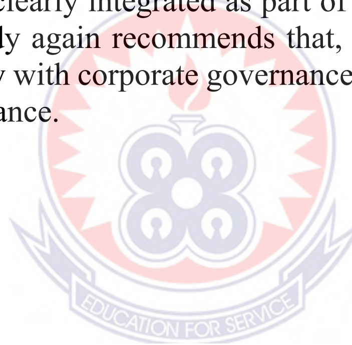
ABSTRACT

There have been several studies that have explored the linkage between corporate governance practices and stock market performance, most of which have reported inconclusive and conflicting result. This could be attributable to the fact that, the mediating role of certain variables that plays significant role in such relationship are usually ignored. On this basis, the current study examines the mediums through which corporate governance compliance translate into stock market performance. In this direction, the current study aimed at examining the linkage between corporate governance compliance and stock market performance through a sustainability reporting. A sample of 14 listed firm were selected and data on study variables were collected from annual reports and stand-alone sustainability reports over a six-year period from 2017 to 2022. The data was analysed using structural equation modelling. It was observed that, firms in the extractive industry maintained high level of Sustainability disclosure as compare to those manufacturing firms. Also, increase corporate governance compliance directly influence their stock market performance which is a confirmation of signalling theory. Again, sustainability disclosure was found to partially mediate the relationship between corporate governance compliance and stock market performance. The study therefore recommends that the activities on sustainability should be clearly integrated as part of the firm's corporate and business level strategies. The study again recommends that, firms should consciously adopt a proper strategy to comply with corporate governance rules as this have direct influence on stock market performance.



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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The global economy has experienced significant losses as a result of financial crises and governance failures. Consequently, numerous corporate entities worldwide, including those in well-known advanced economies like the United States and Europe, have faced winding up, business failures and bankruptcy. This includes major industry players such as Kodak, Lehman Brothers, WorldCom, Texaco, Enron among others (Clarke, 2007). Similarly, Africa has witnessed corporate governance failures, leading to substantial financial distress and collapse of several companies, exemplified by Steinhoff, African Bank, Platinum Bank, Celtel and others. These instances highlight the crucial need for robust corporate governance practices to safeguard shareholders' investments. Scholars and policymakers globally have increasingly emphasized the role of corporate governance, particularly in the developed and emerging economies, for over a decade. While developed economies have received significant attention regarding corporate governance issues, many developing countries still grapple with challenges associated with it. The collapse of UT Bank and Capital bank in Ghana in 2018 serves as evidence of inadequate corporate governance practices in developing countries such as Ghana. Consequently, academic researchers and policy makers has shown a notable interest in corporate governance within both developed and developing countries (Mallin, 2016).

n general, it is widely recognized that underperforming firms and subsequent collapses are often attributed to fraudulent actions by company managers seeking

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personal gain (Kyere & Ausloos, 2021). As a result, policymakers have implemented rules, regulations, and guidelines, such as corporate governance principles, to mitigate fraudulent practices and prevent their occurrence (Zhou et al., 2018). Another recent measure employed by the capital market to improve accountability and transparency is the practice of corporate sustainability disclosure. Corporate sustainability disclosure is commonly acknowledged as a crucial mechanism for informing society about a firm's sustainability performance and its commitment to transparency standards, aiming to attract investors (Zhang et al., 2020).The radical climatic changes have raised concerns among stakeholders of corporate entities to demand corporate entities to work towards the achievement of the United Nations Sustainable Development Goals on sustainability.

The growing amount of carbon emission and degradation of the ecosystems resulting in changes in temperature and rainfall, natural disasters like drought, flood, cyclones and earthquakes have become a common phenomenon in most part of the world (Lee, 2007; Becker et al., 2020), a state of affairs that has affected people's livelihoods, society, culture and health worldwide as well threatens global economic growth, sustainable development and poverty reduction. Nurunnabi (2016) posited that, as per UN Framework Convention on Climate Change (UNFCCC), thousands of deprived people would face scarcity of fundamental needs such as food, water and shelter and are likely to be prone to critical diseases and illness. As a result, corporate entities, especially those whose activities have direct impact on the environment such as the extractive and manufacturing industries are pressured to be responsible to society (Liesen *et al.*, 2017) and report this act to their stakeholders by disclosing their concern for the environment in their annual report. Reporting entity's concern for the

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environment to various stakeholders in a publicly available document constitutes corporate sustainability disclosure. As defined by World Commission on Environment and Development (1987), sustainability of the environment is the responsible use and management of natural resources and the environment to ensure their long-term viability and the well-being of current and future generations. It involves practices and policies that aim to conserve ecosystems, protect biodiversity, reduce pollution, minimize resource depletion, and promote the overall health of the planet. Thus, sustainability disclosure is when firms provide information on their sustainability practices including economic, environmental, and social impacts to all interested parties. It is the practice of disclosing the entity's environmental, social, and governance (ESG) performance to stakeholders. It involves reporting on the company's efforts, impacts, and achievements in various sustainability areas, providing information beyond traditional financial statements (Benlemlih et al., 2020). Stakeholders' demands for care-for-environment have led to them ascribing relevancy to environmental disclosure practices from corporate citizens, hence the recent enhancement of the significance in environmental reporting in today's globalized and competitive arena (Benlemlih et al., 2020; Liesen et al., 2017).

While most developed countries have already instituted sustainability reporting as a requirement where listed companies are bound to disclose their environmental activities in their financial statement or a separate statement for that purpose and failure to comply may cause a considerable penalty, some developing countries such as South Africa, Kenya, Indonesia, Mauritius, etc. follows such footprints.

In Ghana, despite the general conditions provided by the Environmental Protection Agency Act, 1994 (Act 490) and its regulation (L.I. 1652) for the concern-

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for-environment providing the conditions for gaining permit for economic activities and penalties for breach of conditions, it is not mandatory for entities to disclose their extent of compliance to these laws in their publicly made available statements, thus corporate entities go to the extent of meeting the conditions for gaining permit for the activities but the public is kept in the dark as to whether or not they comply with environmentally sustainable practices. Again, the fact that no accounting standard has been issued by either the international accounting bodies or the local accounting bodies on corporate governance and sustainability disclosure requirement makes this study very necessary to explore the role of sustainability disclosure in the linkage between corporate governance practices and the value of shareholders. Thus, in a bid to enhance transparency and accountability, the Ghana Stock Exchange (GSE) in collaboration with its partners has launched the Environment, Social and Governance (ESG), to serve as guiding manual for both prospective and listed companies on the local burse.

The manual will enable listed Firms, collect, analyze, and publicly disclose important ESG information using an approach that meets international standards in sustainability reporting. Listed companies are then required to publish the Environment, Social and Governance document alongside their financials (Backah, 2022). Once approved by the Regulator, training activities will be undertaken to be introduced after which the requirements will then be added to the listing obligations for listed companies be added. Therefore, the present study supplements efforts in line with informing the public on how listed companies in Ghana engaged in ESG reporting is likely to translate into the value of their investors.

Furthermore, with the global market becoming more competitive, the success of companies both presently and in the future is contingent on their consideration for

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the environment (Ameer & Othman, 2012). The significance of this has garnered growing attention, particularly from firms, as investors increasingly prioritize sustainable development (Alshehhi et al., 2018). Consequently, there is an expectation for companies to broaden their scope beyond solely financial aspects and place greater emphasis on environmental, social, and economic concerns (Haffar & Searcy, 2017). This shift in focus is anticipated to translate into enhanced firm value which is the main object of the current study.

1.2 Statement of the Problem

The relationship between corporate governance and sustainability reporting in developed economies has been explored using various theoretical propositions. However, there is limited understanding regarding this relationship in developing economies. Nonetheless, the fundamental objective of these practices is to mitigate potential conflicts between managers and shareholders, as proposed by Jensen and Meckling (1976), and to communicate performance signals to stakeholders regarding environmental impact. It is seen as a framework for guiding and overseeing corporate entities. Firms need to recognize that a one-size-fits-all approach is insufficient for effective implementation, as stated by Bhagat & Bolton (2008). Creating an effective sustainability system in a country should consider institutional development and jurisdiction-specific factors, as highlighted by Jiang & Peng (2011) and Bhatt and Bhatt (2017). Attributes such as the nature of the capital market and the financial and regulatory systems in a country influence the development and implementation of corporate governance practices as well as sustainability disclosure, even though developing countries often emulate governance systems from developed economies.

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Although several studies have examined the influence of corporate governance (Bhatt & Bhatt, 2017; Fiandrino et al., 2019; Alodat et al., 2021) and sustainability disclosure (Weber, 2017; Buallay, 2019a) on firm performance, the empirical findings from these studies have been inconclusive, mixed, and conflicting (Trumpp & Guenther, 2017). This suggests a curvilinear relationship between governance and firm performance, hence different authors estimate different aspect of the curve. Additionally, previous research has predominantly relied on traditional accounting profit measures, such as return on assets and return on equity, which have limitations in terms of their short-term focus, subjectivity, and exclusion of non-financial factors (Yilmaz, 2021). Given the controversial nature of the results regarding the relationships between corporate governance, sustainability disclosure, and firm performance, it is necessary to develop a robust conceptual framework and a comprehensive measure of firm performance to further investigate these relationships. This is a gap the current study sought to fill by taking a comprehensive view of firm performance in terms of shareholder value rather than the traditional accounting measures.

Furthermore, previous studies in the field of corporate governance (Bhatt & Bhatt, 2017; Fiandrino et al., 2019; Alodat et al., 2021) have neglected the role of sustainability disclosure plays in enhancing or otherwise the relationship between corporate governance and firm performance on the stock market (Munir et al., 2019; Galbreath, 2018). Therefore, it is crucial to explore whether corporate governance practices have influence on firm's stock market performance and whether or not sustainability disclosure plays a role in this relationship. This research does not only bridge the existing literature but also provides valuable evidence for policymakers and practitioners, ultimately contributing to the improvement of both practices.

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Ghana's economic landscape offers an intriguing opportunity to explore the linkage among these concepts. The country has encountered numerous obstacles, including macroeconomic volatility, escalating unemployment rates, reliance on remittances and grants from international partners, and ongoing strain on natural resources (Amoako, 2021). This has translated on the Ghanaian stock market which is characterized by limited liquidity and mounting trading costs, with firms operating within a relatively inefficient market structure (Ahaidu, 2015). These characteristics place firms listed on the stock market in a vulnerable position, necessitating the implementation of robust corporate governance mechanisms and a focus on corporate sustainability which is expected to send signals to attract a cross section of investors. Thus, the current study aims at examining the relationship between corporate governance mechanisms and firm's stock market performance and explore whether sustainability disclosure mediates the relationship between corporate governance mechanisms and firm's stock market performance in Ghana.

1.3 Purpose of the Study

The purpose of the study is to examine the linkage between corporate governance compliance and stock market performance of listed firms in Ghana and explore the mediating role of sustainability disclosure in this relationship.

1.4 Objectives of the Study

To achieve the purpose of study the following sub-objectives were set to be achieved;

a) to measure the level of sustainability disclosure of listed companies in Ghana.

b) to examine the relationship between corporate governance compliance and firm's stock market performance.

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c) to explore the mediating role of sustainability disclosure in the linkage between corporate governance compliance and firm's stock market performance.

1.5 Research Question

In achieving the objectives of the study, both research question and hypotheses were stated. The first objective was guided by a research question whereas the second and third objective were guided by research hypotheses. The study is guided by the following research question;

(a) What is the level of sustainability disclosure of listed firms in Ghana?

1.6 Research Hypotheses

In achieving the second and third objectives, the study is guided by the following hypotheses;

Hypothesis 1:

$H1_0$: There is no significant positive relationship between corporate governance compliance and a firm's stock market performance.

$H1_1$: There is a significant positive relationship between corporate governance compliance and a firm's stock market performance.

Hypothesis 2:

$H2_0$: Sustainability disclosure does not mediate the relationship between corporate governance compliance and a firm's stock market performance.

$H2_1$: Sustainability disclosure mediates the relationship between corporate governance compliance and a firm's stock market performance.

1.7 Significance of the Study

The current study makes a significant contribution to the existing body of knowledge on governance and sustainability by examining these concepts within

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different contexts. Specifically, the study focuses on the impact of corporate governance on firm performance in the stock market within a developing economy such as Ghana. This is a departure from prior studies, which predominantly concentrated on developed countries with well-established stock markets (Bhagat & Bolton, 2019). For instance, a study by Adedeji et al. (2020) explored the relationship between corporate governance, sustainability disclosure, and firm performance in emerging economies, using traditional accounting measures as proxies for firm performance. However, the present study specifically investigates Ghana, a country with limited resources where the capital market serves as a crucial avenue for firms to raise capital. Consequently, as an emerging economy, this study offers valuable insights for policy formulation and implementation regarding corporate governance and sustainability disclosure.

Additionally, the study adopts a novel approach by creating a sustainability composite index to measure sustainability disclosure. Unlike previous studies, this approach explicitly encompasses all three dimensions of sustainability: environmental, social, and economic sustainability in the index. The examination of annual reports through content analysis enables observation of the extent to which firms in Ghana voluntarily disclose sustainability practices. Since sustainability disclosure is not mandatory for Ghanaian firms in their annual reports, nor are they required to present a separate sustainability report, this study's presentation of an index for each firm over the study period may encourage firms to allocate a section within their annual reports to disclose information on social, environmental, and economic sustainability.

Furthermore, it is worth noting that Ghana is in the early stages of developing its framework for sustainability disclosure, and uncertainty remains regarding the entity responsible for monitoring the implementation of sustainability practices (Amoako,

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2021). Consequently, the findings of this study are expected to identify the corporate governance mechanisms that underpin a robust framework for corporate governance and sustainability practices in Ghana and other developing countries with similar characteristics.

1.5 Delimitation of the Study

In terms of delimitation, the study focuses on listed firms on the Ghana Stock Exchange (GSE). This study pays attention to extractive and manufacturing firms listed on the exchange that have been listed for more than six years from 2017. As such, companies not in these industries were excluded from the study as their commitment to sustainability reporting is not pronounced.

1.6 Organization of the Study

The current study is organized into five chapters. Chapter one introduces the study by presenting the background of the study, the research problem to be solved, the objectives as well as the relevance of the study. Chapter two reviews relevant literature on corporate governance and sustainability disclosure and their impact of stock market performance of corporate entities. It also discusses theories underpinning the study, and based on the review a conceptual framework is formed and hypotheses are also developed concerning the study objectives. Chapter three discusses the philosophical assumptions of the study, the research design, sampling, data collection techniques used, specification of models among others are discussed. Chapter four discusses the major findings of the study regarding the objectives that were set for the study. Chapter five summarizes the findings of the study, indicates major contributions of the study, discusses the key limitations of the study and gives suggestions for future studies.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

The study investigates the linkage between corporate governance compliance and stock market performance of listed firms in Ghana and explore the mediating role of sustainability disclosure in this relationship. Thus, this section provides a review of relevant theoretical, empirical and conceptual literature in relation to the study objective from which the study hypotheses are developed. The chapter is organised as follows; the first section discusses the theoretical review within which the study was conducted followed by a discussion of the conceptual review of literature in relation to the study. The chapter then discusses the empirical review and the conceptual framework that guides the study.

2.2 Theoretical Review

This section discusses the theories used to support the arguments being made in the study. The theories that underline this study are the signalling theory, the stakeholder theory and the agency theory.

2.2.1 Signalling Theory

The concept of signalling, which was first defined by economist Spence (1978) as part of his work on job-market signals, has since grown to become an essential part of both the field of economics and the field of finance. The problem of information asymmetry, in which one party possesses more or better information relative to the other, was the impetus for the development of the theory. It proposes that an informed party can indicate its kind or quality by a credible activity that an ignorant party can

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view. This action can be observed by the uninformed party. In order to circumvent the issue of adverse selection, this signalling technique is frequently implemented (Yasar, Martin, & Kiessling, 2020). The signalling theory applies to the subject of corporate governance, and its central tenet is that companies may communicate meaningful information to the market through a variety of acts and behaviours. Strong processes for corporate governance, such as open financial reporting, adherence to ethical principles, and active interaction with stakeholders, have the potential to operate as potent signals (Vesal, Siahtiri, & O'Cass, 2021). These signals, as interpreted by investors and the market, give insights into the general health of the company, as well as its level of efficiency and ethical standing (Witkowska, 2016).

The ideas of signalling theory are nicely compatible with the practice of sustainability disclosure. In an era in which there is a growing concern for sustainability, open and comprehensive sustainability disclosure acts as an indication of a company's commitment to tackling environmental and societal concerns (Barbeito-Caamaño & Chalmeta, 2020). In this era, sustainability is becoming an increasingly important concern. When carried out in the correct manner, this disclosure goes beyond the requirements of simple compliance and transforms into a signal of long-term strategic thinking and social responsibility. These signals can be interpreted by investors, who are becoming more conscious of the significance of sustainability (Barbeito-Caamaño & Chalmeta, 2020; Witkowska, 2016).

According to Sethi, Martell, and Demir (2017), they can be interpreted as indicative of a company's long-term viability and ethical stance. When these components are connected to the research, it becomes clear that the disclosure of a company's corporate governance processes and its commitment to sustainability are

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extremely important factors to consider when analysing the company's success in the stock market. Good governance, as demonstrated by transparent business practises, has the potential to increase investor trust and serve as an indicator of successful future performance, both of which have an impact on the value of the company's shares (Ching, Gerab, & Toste, 2017; Yang, Orzes, Jia, & Chen, 2021). In a similar vein, Wu, Shao, Yang, Ding, and Zhang (2020) indicated that sustainability disclosure, which conveys the moral position and long-term goals of a firm, has the potential to operate as a moderating factor between corporate governance and the success of the stock market. Investors who are interested not just in financial returns but also in social responsibility can view this disclosure as an additional indicator of the quality of the firm and its potential for future success (Vesal et al., 2021; Yang et al., 2021).

Therefore, signalling theory provides a solid framework for understanding how crucial information is communicated to the market by business activities, especially in governance and sustainability reporting. The study provides a more nuanced understanding of the link between good corporate governance, environmental responsibility, and the performance of a company's stock market by analysing these signals and how they are interpreted. It provides a richer knowledge of how information is delivered and perceived, making it possible for a more in-depth investigation of the underlying mechanisms that affect the value of a company's shareholders.

2.2.2 Agency Theory

Agency theory is a branch of economics that was developed in the early 1970s by economists Jensen and Meckling (1976). Its primary focus is on the resolution of issues that might arise in agency relationships owing to unaligned aims or unequal risk tolerances between principals (such as shareholders) and agents (such as managers).

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Agency theory was first proposed in the early 1970s. The theory proposes that principals and agents may have competing interests, and it investigates the many procedures that may be employed to bring these interests into alignment (Daka, 2017). The theory also examines the possibility that these interests may be aligned accidentally (Vitolla, Raimo, Rubino, & Garzoni, 2019). The fundamental premise of agency theory is that it is based on a contractual framework, with principals delegating specific tasks to agents with the expectation that the agents will act in the best interest of the principals (Higgins & Coffey, 2016). However, due to the fact that agents often have more knowledge and may have interests that do not entirely line with those of the principals, this relationship is subject to conflicts. These disagreements have the potential to result in expenditures for the agency, which may include monitoring fees, bonding charges, and residual loss (Herremans, Nazari, & Mahmoudian, 2016).

When it comes to resolving agency conflicts, the procedures of corporate governance play a very important role (Christensen, Hail, & Leuz, 2021). Companies are able to bring the interests of their managers closer in line with those of their shareholders if they adopt transparent rules, processes, and controls (Rezaee, 2018). This alignment is essential for ensuring that managers behave in a way that increases shareholder value, which in turn leads to enhanced decision-making processes and maybe greater stock market performance. The incorporation of agency theory into the research made possible by the relationship to sustainability disclosure is further enriched (Herremans et al., 2016; Higgins & Coffey, 2016). Firms send a powerful message to shareholders that management is not only pursuing short-term financial benefits but also contemplating long-term sustainability if they make a commitment to transparent sustainability practices and then follow through on that commitment

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(Vitolla et al., 2019). This commitment serves as a method for bonding, ensuring shareholders that the management has their interests aligned with their own. This alignment has the potential to have a significant beneficial influence on stock performance in a corporate environment in which the value placed on sustainability is growing.

The use of agency theory in the current investigation provides a powerful analytical tool for gaining an understanding of the ways in which corporate governance procedures and sustainability disclosure affect the performance of the stock market (Christensen et al., 2021; Herremans et al., 2016). This study has the potential to discover subtle insights into the mechanisms that produce shareholder value by putting an emphasis on the alignment of interests between shareholders and management, as well as the role that governance and transparency play in attaining this alignment (Rezaee, 2018; Vitolla et al., 2019). In addition to this, it focuses the emphasis on long-term sustainability as well as ethical management, which reflects a more holistic perspective of the performance of corporations in today's complicated business environment. Therefore, the use of agency theory in this study provides a rigorous theoretical basis for empirical analysis by presenting a multidimensional method for studying the dynamics between corporate governance, sustainability, and stock market performance. This approach examines the interrelationships among these three factors.

2.2.3 Stakeholder Theory

In his significant article "Strategic Management: A Stakeholder Approach" published in 1984, R. Edward Freeman championed stakeholder theory, which marked a substantial change from conventional ideas that focused only on shareholders (Charan & Freeman, 1980). Instead of giving shareholders the highest priority in the decision-

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making process of a company, this idea suggests that management should consider the needs and concerns of all of the company's stakeholders. Employees, customers, suppliers, shareholders, and members of the community are all examples of stakeholders. Stakeholders include anybody who is impacted by or may affect the actions of a company (R. E. Freeman, 2016). Understanding and striking a balance between the many stakeholder groups' competing interests and values is essential to achieving success over the long term, according to the founding concept of stakeholder theory, which states that the generation of value is not a zero-sum game (Amponsah-Tawiah & Dartey-Baah, 2016). If businesses take this step, they will be able to cultivate more trust, collaboration, and sustainability inside their operations, therefore linking their economic aims with larger societal duties.

Bringing the idea of stakeholders into the context of this research, the study finds that effective corporate governance is absolutely necessary in order to maintain a healthy equilibrium of interests among all stakeholders. Effective governance processes acknowledge that the varied interests of stakeholders need to be incorporated into the decision-making process, and this inclusion may lead to growth that is more sustainable (Bellucci, Simoni, Acuti, & Manetti, 2019). Not only can businesses improve their financial performance by considering a wider variety of consequences and obligations, but they can also improve their standing in the social and environmental communities, which might possibly improve their performance on the stock market. The relationship between the idea of stakeholders and the findings of this study is further strengthened by the practise of sustainability disclosure (De Gooyert, Rouwette, Van Kranenburg, & Freeman, 2017). Firms are able to connect with stakeholders on a deeper level when they disclose their sustainability practice in an open and honest manner. This

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participation according to Wang (2017) goes beyond only disclosing financial information and instead addresses a variety of interests, concerns, and expectations held by society. Disclosure about sustainability can be interpreted as a commitment to greater duties and principles, which are likely to resonant with a diverse range of stakeholders (Bellucci et al., 2019).

The fact that sustainability disclosure has a mediating influence on the relationship between corporate governance and the performance of the stock market places an even greater emphasis on the necessity of values that are congruent with those of society. Today's stakeholders are more knowledgeable and aware of the challenges surrounding sustainability, and businesses that are transparent about the efforts they are doing to promote sustainability send a powerful signal that they are aligned with these larger concerns (Ong & Djajadikerta, 2020). This alignment, in turn, may have a beneficial impact on the performance of the stock market, as it demonstrates a full awareness of the function that the company plays within the larger ecosystem of stakeholders (De Gooyert et al., 2017). As a result, stakeholder theory provides a useful framework for comprehending the complex web of interactions that exist between a firm and the people whose lives it touches (Saidu, Gold, & Aifuwa, 2020). This theory, when applied to the study of corporate governance processes, stock market performance, and sustainability disclosure, results in a picture that is deeper and more complex. Understanding how businesses may achieve sustainable growth while also improving their performance in the stock market is made more nuanced by placing an emphasis on the alignment of interests and considering the ideals of the wider society. This study's incorporation of stakeholder theory offers a compelling perspective that is

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in sync with the reality of contemporary business, where success is increasingly assessed not just by financial performance but also by influence on society.

In summary of the theoretical review, signalling theory suggests that strong corporate governance processes, as measured by Corporate Governance Compliance Score (CGCS), and transparent sustainability practices, reflected in Sustainability Disclosure (SD), can serve as signals to investors about a firm's overall health, efficiency, and ethical standing, ultimately influencing Stock Market Performance indicators such as Earnings Per Share (EPS), Price-Earnings Ratio (PER), Price-Earnings Ratio to Growth Ratio (PEG), Price to Book Value Ratio (PBR), Dividend Payout Ratio (DPR), and Dividend Yield Ratio (DYR). Agency theory emphasizes the importance of aligning managerial behavior with shareholder interests, highlighting the role of effective corporate governance practices, measured by CGCS, and sustainability disclosure, represented by SD, in mitigating agency conflicts and enhancing decision-making processes, which in turn, positively impacts Stock Market Performance metrics. Stakeholder theory underscores the significance of considering the diverse interests of stakeholders in decision-making processes, suggesting that CGCS and SD can lead to more sustainable growth and improved relationships with stakeholders, ultimately contributing to enhanced Stock Market Performance metrics, reflecting increased investor confidence and alignment with broader societal values and expectations.

2.3 Conceptual Review

2.3.1 Corporate Governance

Corporate governance encompasses the policies and procedures used to direct and manage a corporation's operations and activities (Mallin, 2016). It involves a set of

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relationships between the company's management, its board, shareholders, and other stakeholders. These relationships, which involve various rules and incentives, according to Anaman, Ahmed, Appiah-Oware, and Somiah-Quaw (2023) provide the structure through which the objectives of the company are set, and the means of attaining those objectives are determined. Corporate governance recognizes that a firm has obligations to multiple parties. This includes not only shareholders but also employees, customers, suppliers, and the broader community. Balancing these various interests is a complex task and requires carefully crafted policies to ensure that decisions are made with a broad spectrum of interests in mind (Rodriguez-Fernandez, 2016).

Mallin (2016) posit that at the core of the corporate governance structure is the board of directors. The board has a fiduciary duty to protect the interests of shareholders and is responsible for overseeing management's activities, providing strategic direction, and ensuring accountability. The board must include independent directors, individuals who have no relationship with the company's management, to ensure unbiased oversight. Corporate governance also includes a focus on ethical behaviour and social responsibility (Lau, Lu, & Liang, 2016; Rodriguez-Fernandez, 2016). Therefore, Solomon (2020) indicate that, corporations must develop codes of conduct and ethics that guide decisions at all levels of the organization. Social responsibility recognizes that corporations have a duty not just to shareholders but to society at large (Lau et al., 2016). This may involve environmental stewardship, community engagement, and adherence to fair labour practices.

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Risk management is an essential part of corporate governance (Mallin, 2016; Sadgrove, 2016). The board and management must develop systems to understand and mitigate risks that could endanger the company's objectives. This involves creating internal controls that detect and prevent fraudulent activities, ensuring accuracy in financial reporting, and compliance with laws and regulations (Sadgrove, 2016). Transparency and accountability are pillars of good corporate governance (Mallin, 2016). Firms must provide clear, comprehensive, and timely information about their operations and performance. This includes regular financial reporting, disclosure of related party transactions, and communication of major decisions and policies. Such transparency builds trust with shareholders and other stakeholders and facilitates effective monitoring and accountability.

An underlying goal of corporate governance is to align the interests of management with those of shareholders (Solomon, 2020). This can be achieved through performance-based incentives, regular communication, and engagement with shareholders. Mechanisms such as shareholder voting rights on significant issues ensure that shareholders have a voice in the company's direction. Corporate governance practices may vary widely across different jurisdictions due to cultural, legal, and regulatory differences. Understanding these differences is essential for multinational corporations and those engaging in international business.

2.3.1.1 Historical Review of Corporate Governance

Corporate governance, as a concept, has roots that go back to the very inception of the corporation. As early as the 17th century with the formation of the Dutch East India Company, the separation of ownership and control became an important issue, necessitating rules and procedures for corporate oversight (Freeman, Pearson, &

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Taylor, 2019). The Industrial Revolution brought about significant changes in the business landscape, leading to the growth of large corporations. During this period, the balance of power began to shift from owners to professional managers, and the need for governance mechanisms to align their interests became apparent (Almashhadani & Almashhadani, 2022). The post-World War II economic boom saw further expansion of corporations and increased complexity in their operations. Shareholding became more dispersed, leading to what is known as the "agency problem," where the separation between ownership (shareholders) and control (management) can lead to conflicts of interest. The late 20th century marked a pivotal period in corporate governance. A series of high-profile corporate scandals and market crashes led to a global reassessment of governance principles (Chandler, 2019).

- **The Cadbury Report (UK, 1992)**: Prompted by financial scandals in the UK, the Cadbury Report established key principles of transparency, accountability, and board independence (Shah & Napier, 2017). It laid the groundwork for subsequent governance codes around the world.

- **Sarbanes-Oxley Act (USA, 2002)**: In response to scandals involving companies like Enron and WorldCom, the U.S. Congress passed the Sarbanes-Oxley Act (Gorshunov, Armenakis, Feild, & Vansant, 2020). This landmark legislation introduced stringent reforms to enhance corporate accountability, including requirements for financial disclosures and penalties for fraudulent activity (Basile, Handy, & Fret, 2015; Harakeh, Matar, & Sayour, 2020).

- **Corporate Governance in Other Jurisdictions**: Different countries developed their governance frameworks, reflecting their unique legal, cultural, and

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economic contexts (Mathuva, Tauringana, & Owino, 2019; Qu, Ee, Liu, Wise, & Carey, 2015). Examples include Germany's two-tier board system and Japan's focus on stakeholder consensus.

The 21st century has seen a growing emphasis on corporate social responsibility (CSR) and sustainability. Global initiatives like the United Nations Global Compact (2000) have guided companies to align their strategies with universal principles on human rights, labour, environment, and anti-corruption (Harakeh et al., 2020). More recently, the focus on environmental, social, and governance (ESG) criteria has become central to investment and governance decisions (Syed, 2017). The push for gender diversity on boards and the integration of technology in governance practices also mark significant trends.

2.3.1.2 Key Principles of Corporate Governance

The key principles of transparency and disclosure, accountability and responsibility, ethics and integrity, and protection of shareholders' rights collectively shape the foundation of corporate governance (Mallin, 2016). They represent a harmonious blend of legal requirements, ethical considerations, and strategic imperatives. Adhering to these principles fosters trust, enhances performance, mitigates risks, and aligns various stakeholders' interests (Page & Spira, 2016). In a rapidly evolving business environment, these principles act as guiding stars, helping corporations navigate complexities and contribute positively to the broader socio-economic ecosystem (Du Plessis, Hargovan, & Harris, 2018).

Transparency and disclosure form the backbone of effective corporate governance (Jolly Sahni & Al-Assaf, 2017). In an age of information, stakeholders,

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including investors, employees, customers, and regulators, need timely and accurate information about a company's financial position, performance, and risks. According to Al-Azzam, Al-Mohameed, and Al-Qura'an (2015), clear and transparent disclosure ensures that stakeholders can make informed decisions and hold the company accountable. Transparency builds trust and promotes a culture of honesty and openness within the organization. Regulators often enforce stringent disclosure requirements, such as those found in securities laws, to ensure that companies adhere to this principle (Du Plessis et al., 2018; Jolly Sahni & Al-Assaf, 2017). Transparency not only enhances the company's reputation but also facilitates access to capital markets by instilling investor confidence.

According to Solomon (2020), accountability and responsibility are integral to corporate governance. The board of directors and management must be accountable to shareholders and other stakeholders for the company's performance and adherence to legal and ethical standards. Clear lines of responsibility within the organization help in defining roles and avoiding conflicts of interest (Rodriguez-Fernandez, 2016). The accountability principle mandates that decisions are taken with the utmost care, considering all relevant factors and potential consequences. Oversight mechanisms such as internal and external audits, regular board evaluations, and shareholder meetings enhance the monitoring of those in power, ensuring they act responsibly and in the best interest of the company (Solomon, 2020; Stuebs & Sun, 2015).

Ethics and integrity are the moral compass of corporate governance (Mallin, 2016; Stuebs & Sun, 2015). Upholding ethical standards means adhering to both the letter and the spirit of the law, as well as embracing values like honesty, fairness, and respect. A culture of integrity permeates all levels of the organization, guiding daily

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decisions and long-term strategies (Rodriguez-Fernandez, 2016). Corporate governance must involve not only implementing codes of conduct and ethics but also fostering an environment where employees feel empowered to act ethically. This culture of integrity enhances a company's reputation, mitigates risks of legal violations, and aligns the organization with societal expectations (Scherer & Voegtlin, 2020).

Shareholders, as owners of the company, have particular rights that must be protected and respected within the corporate governance framework (Scherer & Voegtlin, 2020). These rights include voting on significant matters, receiving dividends, accessing information, and participating in general meetings. Good governance ensures that shareholders can exercise these rights without undue hindrance or discrimination (Mallin, 2016; Stuebs & Sun, 2015). Protection of shareholders' rights involves creating mechanisms for effective communication with shareholders, recognizing minority shareholders' interests, and providing avenues for redress if rights are violated (Rodriguez-Fernandez, 2016). This principle fosters a sense of ownership and engagement among shareholders and aligns their interests with the management and board.

2.3.1.3 Frameworks and Models of Corporate Governance

Different frameworks and models of corporate governance reflect the multifaceted nature of corporate governance, adapting to various cultural, legal, and economic contexts. These frameworks provide a structure and guidance to companies, ensuring that they meet contemporary standards of governance (Elghuweel, Ntim, Opong, & Avison, 2017). They reflect a global movement towards more robust, transparent, and responsible corporate governance practices, recognizing the complex interplay of factors that influence corporate behaviour (Tricker, 2015). The diversity of these

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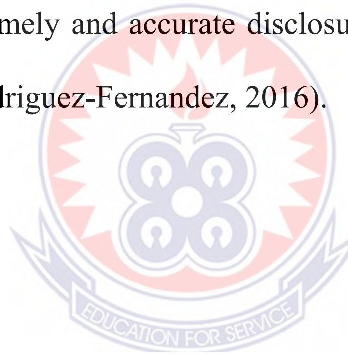
frameworks underscores the importance of understanding local nuances while also appreciating universal principles that guide corporate governance across the globe. Some of these frameworks include;

OECD Principles of Corporate Governance

According to Paminto (2015), the Organisation for Economic Co-operation and Development (OECD) Principles of Corporate Governance serve as a reference point for governments, regulators, investors, corporations, and other stakeholders worldwide. Adopted in 1999 and revised in 2015, these principles provide guidelines on six key areas: ensuring the basis for an effective corporate governance framework. Also, protecting and making the most of shareholders' rights, recognizing the role of stakeholders, ensuring timely and accurate disclosure, and the responsibilities of the board (Mallin, 2016; Rodriguez-Fernandez, 2016).



- **UK Corporate Governance Code**

The UK Corporate Governance Code, formerly known as the Combined Code, sets out good practices for UK-listed companies on issues such as board composition, remuneration, accountability, and relations with shareholders (Price, Harvey, Maclean, & Campbell, 2018; Shrives & Brennan, 2015). It operates on a "comply or explain" basis, allowing companies the flexibility to deviate from the Code's provisions, provided they explain their reasons (Price et al., 2018). It has undergone various iterations, reflecting the evolving corporate governance landscape.

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- **Sarbanes-Oxley Act (USA)**

The Sarbanes-Oxley Act, enacted in 2002 in response to corporate scandals in the U.S., introduced significant changes to corporate governance (Bajra & Asllanaj, 2021). According to Bhabra and Hossain (2017), its provisions emphasize the independence of the board's audit committee, the accuracy of financial reporting, and the establishment of internal control mechanisms. While primarily a U.S. law, its effects are felt worldwide, particularly by companies listed on U.S. exchanges.

- **German Corporate Governance Code**

Germany's two-tier board system has influenced its Corporate Governance Code. This Code offers recommendations and suggestions on topics like executive compensation, transparency, accountability, and the composition of the supervisory board (Soltani & Maupetit, 2015). The German model emphasizes co-determination, where employees have representation at the board level.

- **King Reports (South Africa)**

The King Reports, now in their fourth iteration (King IV), are South Africa's corporate governance guidelines. They emphasize an integrated approach, linking governance with strategy, performance, and sustainability (Ackers & Eccles, 2015; Ahmed Haji & Anifowose, 2016). King IV is founded on principles such as ethical leadership, corporate citizenship, stakeholder inclusivity, and transparency.

- **Japanese Corporate Governance Code**

Japan's Corporate Governance Code, introduced in 2015, reflects the country's unique business culture and legal system (Ahmadjian, 2015; Milhaupt, 2017). It encourages companies to enhance their governance structures, focusing on areas like

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strategic shareholding, board independence, and dialogue with shareholders (Sakawa & Watanabel, 2020).

- **Other Emerging Models**

Many other countries, including India, China, and Brazil, have developed their corporate governance codes, reflecting their unique legal, economic, and cultural contexts (Aguilera & Haxhi, 2019; Ararat, Claessens, & Yurtoglu, 2021; Miras-Rodríguez, Martínez-Martínez, & Escobar-Pérez, 2018; Tricker, 2015). These codes vary in their focus and application but often include provisions for transparency, accountability, stakeholder engagement, and ethical governance.

2.3.1.4 Impact and Importance of Corporate Governance

Corporate governance is far more than a set of rules or a compliance checklist. It's a dynamic and vital aspect of business that permeates every level of an organization. The impact and importance of corporate governance are seen in the enhanced performance, risk mitigation, alignment of interests, ethical conduct, and adaptability it brings to companies. In an age where trust and transparency are paramount, corporate governance stands as a cornerstone of sustainable business success (Guluma, 2021). Corporate governance plays a vital role in boosting a company's performance. Effective governance structures provide clear guidelines and oversight, enabling the management to focus on strategic goals and operational excellence (Manita, Elommal, Baudier, & Hikkerova, 2020; Mohan & Chandramohan, 2018). A well-structured board with diverse expertise offers valuable insights, fosters innovation, and helps management make informed decisions (Guluma, 2021; Mohan & Chandramohan, 2018). Research has shown a correlation between robust corporate governance practices and enhanced

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financial performance, including higher returns on assets and equity (Guluma, 2021; Manita et al., 2020; Mohan & Chandramohan, 2018).

Ahmed and Hamdan (2015) posit that investors, creditors, and other stakeholders seek assurance that a company is managed efficiently and ethically. Strong corporate governance practices build trust and confidence, attracting investment and making capital more accessible and often at lower costs. By demonstrating transparency, accountability, and adherence to ethical standards, companies send a powerful signal to the market that they are committed to value creation and sustainability (Kovermann & Velte, 2019; Mohan & Chandramohan, 2018). Effective corporate governance identifies, assesses, and manages risks that could threaten the company's objectives (Anaman, Ahmed, et al., 2023). This involves not only financial and operational risks but also strategic, regulatory, reputational, and environmental risks (Achim, Văidean, & Safta, 2023). A sound risk management framework, overseen by the board, ensures that risks are understood and managed proactively. This approach not only minimizes potential losses but also enables the company to seize opportunities, driving growth and resilience.

Corporate governance aligns the interests of management, shareholders, and broader stakeholders, ensuring that everyone works towards common objectives (Martin, Farndale, Paauwe, & Stiles, 2016). This alignment reduces potential conflicts and promotes collaboration. Moreover, corporate governance provides mechanisms to hold management accountable, enhancing the efficiency of decision-making processes (Achim et al., 2023). Shareholders and other stakeholders can have their voices heard, further ensuring that their interests are considered and acted upon. Corporate governance isn't merely about compliance with laws and regulations; it involves

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embedding a culture of ethics and social responsibility (Kovermann & Velte, 2019; Mohan & Chandramohan, 2018). This culture promotes not only legal adherence but also a commitment to social and environmental sustainability (Martin et al., 2016). Such an approach resonates with a growing segment of consumers, investors, and other stakeholders who seek companies that align with their values, further contributing to the company's success and reputation.

In a rapidly evolving global business environment, corporate governance provides a stable framework that guides companies through changes and challenges. Whether it's navigating technological disruptions, regulatory shifts, or societal expectations, strong governance practices enable companies to adapt and thrive. This adaptability is vital in maintaining competitiveness and ensuring long-term sustainability.

2.3.1.5 Challenges and Critiques of corporate governance

Different countries and organizations may have diverse interpretations of corporate governance principles, and the enforcement of these principles can vary widely depending on regulatory rigour, cultural norms, and legal frameworks (Aureli, Del Baldo, Lombardi, & Nappo, 2020). This disparity can create confusion and inconsistency, hindering cross-border investments and collaboration. Corporate governance seeks to balance the interests of various stakeholders, but these interests often conflict. Shareholders may prioritize short-term profits, while employees may seek job security, and local communities may focus on environmental protection (Donaldson & Davis, 2019). Striking a balance that satisfies all stakeholders can be complex and sometimes unattainable. Some critics argue that corporate governance

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models are too focused on short-term financial performance at the expense of long-term sustainability and broader social responsibilities. This short-termism can lead to decisions that maximize immediate returns but neglect longer-term risks and opportunities, undermining sustainable growth (Aureli et al., 2020).

Moreover, Seierstad (2016) indicate that implementing robust corporate governance practices requires creating numerous committees, policies, procedures, and oversight mechanisms. While essential, these can sometimes lead to bureaucratic hindrances, slowing decision-making processes and stifling innovation. Although many corporate governance models recognize the importance of social and environmental responsibilities, critics argue that they often fall short of genuinely integrating these aspects into decision-making processes (Kovermann & Velte, 2019; Mohan & Chandramohan, 2018). This failure can result in superficial compliance rather than a meaningful commitment to social and environmental sustainability (Kovermann & Velte, 2019). Finding the right mix of skills, diversity, independence, and experience for a board of directors is a challenging task. Ensuring that the board functions effectively, with robust debate and without domination by certain members, adds to these challenges. Missteps in board composition and functioning can undermine the effectiveness of governance.

The rise of global businesses and technological advancements adds layers of complexity to corporate governance (Bottomley, 2016). Navigating different regulatory landscapes, understanding emerging technologies, and addressing cybersecurity risks are just a few examples of new challenges that governance structures must grapple with (Achim et al., 2023). In many governance models, the focus tends to be on large institutional shareholders, potentially neglecting smaller shareholders. Ensuring that all

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shareholders, regardless of size, have an opportunity to engage and have their voices heard, is a persistent challenge.

2.3.2 Sustainability Disclosure

Sustainability disclosure refers to the practice of organizations revealing information related to their environmental, social, and governance (ESG) impacts and performance (Adams & Abhayawansa, 2022). The recognition of global climate change and other environmental degradation has accelerated the need for corporations to identify and manage their environmental impact. Issues like deforestation, pollution, water scarcity, and carbon emissions have been thrust into the public eye, causing a demand for companies to be more transparent about their environmental footprint. International agreements such as the Paris Agreement have led to heightened regulatory scrutiny of corporate contributions to climate change, thus encouraging or even mandating disclosures (Abdul Rahman & Alsayegh, 2021).

Social issues like labour practices, diversity, and community engagement according to Hoang (2018) have become significant aspects of corporate responsibility. Investors, customers, and employees are increasingly demanding that companies take responsibility for these issues and disclose their efforts to address them. Corporate governance, including ethical business practices, compliance with laws, and board diversity, has become a key aspect of sustainable business (Anaman, Ahmed, et al., 2023). Shareholders and other stakeholders are expecting transparent reporting of governance structures and policies. Socially responsible investing has become more prevalent, and investors are often seeking detailed information on a company's environmental, social, and governance (ESG) practices to make informed decisions (Anaman, Dzakah, Ahmed, Nyamekye, & Somiah-Quaw, 2023).

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Large institutional investors are exerting pressure on companies to disclose sustainability information, considering these disclosures vital to long-term risk management (Abdul Rahman & Alsayegh, 2021). Consumers are increasingly conscious of the impact of their consumption patterns. They seek products and services from companies that align with their values, resulting in pressure for corporations to disclose their sustainability practices (Anaman, Ahmed, et al., 2023). Governments and regulatory bodies around the world are implementing laws and regulations that require companies to report on sustainability issues. Examples include the EU's Non-Financial Reporting Directive and the U.S. Securities and Exchange Commission's (SEC) efforts on ESG disclosure. The development of global standards for sustainability reporting, such as the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB), has facilitated a more standardized and comparable approach to disclosure.

The connection between sustainability practices and financial performance is becoming more apparent. Transparent disclosure can enhance a company's reputation and reduce risk, potentially leading to better financial results (Xie, Nozawa, Yagi, Fujii, & Managi, 2019). The development and acceptance of sustainability disclosure are the result of a confluence of factors ranging from global environmental concerns to shifting consumer preferences and investor needs. The trend is indicative of a broader societal movement towards accountability and responsible business practices, reflecting a deeper understanding of the interconnected nature of the world's social, environmental, and economic systems (Anaman, Dzakah, et al., 2023). As this trend continues to evolve, it is likely to shape corporate behaviour and market dynamics in ways that foster a more sustainable and equitable global economy.

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2.3.2.1 Definitions and Concepts of Environmental, Social and Governance Sustainability

Environmental sustainability emphasizes a company's relationship with the natural world, focusing on reducing negative impacts (Anaman, Dzakah, et al., 2023). This includes how a company manages waste through reduction, recycling, and environmentally friendly disposal methods. It also involves controlling emissions by measuring and reducing greenhouse gases and maintaining air quality. Energy efficiency is another key component, where organizations prioritize energy conservation and the use of renewable energy sources like solar and wind (Daugaard, 2020). Water stewardship involves both the conservation of water and ensuring that water returned to the environment is clean and treated properly. Moreover, biodiversity and land use are considered, with an emphasis on conservation and sustainable land management to maintain ecological integrity.

Social sustainability centres on the human elements of sustainability. Labour practices are a vital aspect, with companies ensuring fair wages and safe, healthy working conditions for their employees (Lokuwaduge & Heenetigala, 2017). Human rights are also at the forefront, with an emphasis on equality and ensuring that human rights are respected throughout the supply chain. Community engagement is another critical area. Organizations support local communities through investment, employment, and other means, fostering open dialogue with community members to address their concerns and needs. This connection with employees, suppliers, customers, and communities forms a comprehensive approach to social sustainability (Bassen & Kovács, 2020).

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Governance sustainability deals with the way's organizations are controlled and managed, focusing on aspects like corporate governance, ethical behaviour, compliance with laws, and risk management (Bassen & Kovács, 2020; Friede, Busch, & Bassen, 2015a). Ensuring diversity and expertise within leadership, protecting shareholders' rights, and maintaining clear guidelines for ethical conduct all fall under corporate governance (Lokuwaduge & Heenetigala, 2017). Integrity and transparency are vital in promoting honesty in business practices, and creating trust among stakeholders. Compliance with all relevant laws and regulations is essential, along with identifying and mitigating legal and financial risks (Anaman, Ahmed, et al., 2023; Anaman, Dzakah, et al., 2023). Risk management extends to both financial risks, through robust controls and oversight, and reputational risks, which entail monitoring and managing factors that could harm the organization's reputation.

The principles of Environmental, Social, and Governance Sustainability cover a broad spectrum of considerations, reflecting an organization's multifaceted impact on the planet, its inhabitants, and its ethical standing. These principles are integral to building trust with stakeholders, aligning with societal values, and ensuring an organization's long-term success in an ever-evolving global landscape. By embracing these sustainability pillars, companies contribute to a more responsible and conscientious business environment, addressing the pressing challenges of our time.

2.3.2.2 Benefits of Sustainability Disclosure

Transparency in sustainability practices can significantly enhance a company's reputation. When businesses openly share their environmental, social, and governance efforts, they send a strong signal to consumers, investors, and the broader community that they are committed to responsible behaviour. This level of transparency builds trust

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and aligns the organization with societal values and expectations, setting them apart from competitors. It also demonstrates leadership and innovation in tackling global challenges, fostering goodwill, and creating a positive brand image.

Sustainability disclosure is an essential tool in risk management (Abdul Rahman & Alsayegh, 2021; Daugaard, 2020). By publicly articulating sustainability practices, a company can more effectively identify and mitigate potential risks related to various factors. These might include regulatory compliance, where disclosure helps ensure alignment with current and future legal requirements (Anaman, Ahmed, et al., 2023). Reputational risk is another area of concern; by showcasing a commitment to sustainability, the company can reduce the likelihood of public relations issues that could harm its image. Furthermore, by keeping a close eye on market trends, companies can anticipate changes and adapt, ensuring resilience in an ever-changing business landscape.

Moreover, Bassen and Kovács (2020) indicate that investors are increasingly integrating sustainability considerations into their investment decisions. For many, sustainability disclosure is no longer a secondary factor but a vital part of the evaluation process. Companies that openly disclose their sustainability practices are likely to be viewed more favourably by this growing segment of the investment community (Friede, Busch, & Bassen, 2015b). Such transparency may attract more investments from individuals and institutional investors alike, as they seek opportunities aligned with both financial objectives and ethical values. This shift in investor priorities can create a competitive advantage for companies leading in sustainability disclosure, opening doors to new funding and partnerships (Lokuwaduge & Heenetigala, 2017).

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Transparency in sustainability practices goes beyond external benefits, playing a critical role in internal decision-making as well (Hoang, 2018). Comprehensive sustainability reporting allows management and employees to have a clearer understanding of the company's performance in various sustainability dimensions. This insight aids in setting targets, tracking progress, and making informed strategic decisions. Similarly, stakeholders such as suppliers, customers, and regulators can make more educated decisions based on the disclosed information (Xie et al., 2019). In essence, sustainability disclosure fosters a culture of accountability and continuous improvement, enabling a more responsive and dynamic approach to business operations.

The benefits of sustainability disclosure are multi-dimensional, extending from improving corporate reputation to enhancing decision-making capabilities. By embracing transparency in sustainability practices, companies not only align themselves with modern societal demands but also leverage valuable tools for risk management, investor attraction, and strategic planning. As the world continues to grapple with global challenges like climate change and social inequality, sustainability disclosure will likely play an even more prominent role in shaping corporate behaviour and market dynamics. It represents a vital pathway towards a more responsible and sustainable global economy.

2.3.2.3 Challenges of Sustainability Disclosure

The practice of sustainability disclosure, while filled with potential benefits, is not without its challenges. These hurdles stem from various factors, creating complexities and potential pitfalls for organizations striving to transparently report their sustainability practices. The lack of standardization presents one such challenge

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(Bassen & Kovács, 2020). The absence of universally accepted standards can lead to inconsistencies in how sustainability is reported and assessed. Different companies might use different metrics or methodologies, resulting in comparability issues when stakeholders attempt to evaluate and contrast the sustainability performances of various organizations. This lack of coherence can undermine trust and confidence in the reported data, hindering the effectiveness of sustainability disclosure as a tool for transparency and accountability (Friede et al., 2015a; Khanh & Khuong, 2018; Lokuwaduge & Heenetigala, 2017). Resource constraints also pose significant challenges to sustainability disclosure. Gathering and reporting sustainability data can be a time-consuming and costly endeavour. This is especially true for smaller businesses that might lack the necessary expertise or resources to conduct comprehensive sustainability assessments (Khanh & Khuong, 2018). The effort required to collect, analyse, and present information in accordance with evolving sustainability standards and expectations can strain organizational capacities, potentially diverting resources from other vital areas of business operations.

Lastly, the issue of greenwashing must be considered. Some companies might engage in deceptive practices to appear more sustainable than they actually are. This can include exaggerating achievements, misrepresenting initiatives, or selectively disclosing only favourable information. Greenwashing not only misleads stakeholders but also threatens to erode public trust in sustainability reporting as a whole (Daugaard, 2020). It can create scepticism and cynicism, diminishing the value and impact of genuine sustainability efforts across the business landscape. Therefore, while sustainability disclosure offers significant opportunities to enhance corporate reputation, attract investment, manage risks, and foster informed decision-making, it

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comes with inherent challenges. These obstacles, from the lack of standardization to the risk of greenwashing, must be recognized and addressed if sustainability disclosure is to realize its full potential as a catalyst for responsible and sustainable business practices.

2.3.3 Stock Market Performance

Stock market performance, at its core, represents the value that a firm delivers to its shareholders. It's a comprehensive term that encapsulates a company's overall worth in the eyes of its investors (Nguyen, Kecskés, & Mansi, 2020). The concept is multifaceted, encompassing various financial metrics and indicators that reflect the economic health and future prospects of the corporation. Among the common metrics used to determine shareholders' value are the share price, dividends, and return on equity (ROE) (Fernandez, 2019). Share price is often seen as a direct reflection of market confidence in a company's future earnings potential. Dividends signify a tangible return to shareholders, reflecting a company's profitability and its willingness to share profits. ROE, on the other hand, evaluates the efficiency with which a company employs shareholder capital to generate profits (Byun & Oh, 2018). Collectively, these metrics provide insights into a firm's financial stability, growth potential, and overall attractiveness to investors.

In modern business practice, maximizing shareholders' value has become a primary objective for many corporations. This focus is rooted in the belief that the ultimate purpose of a business is to create wealth for its owners - the shareholders (Byun & Oh, 2018). This philosophy has led to the alignment of various organizational strategies, from investment decisions to operational tactics, with the aim of enhancing value. While the focus is often on shareholders, the drive to create value can also align

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with other stakeholders' interests (Gelles & Yaffe-Bellany, 2019). For instance, investments in sustainability and social responsibility, while addressing broader societal concerns, can also contribute to long-term value creation. Understanding and managing this alignment is a complex task that requires a balanced approach to various conflicting interests and objectives. The emphasis on shareholders' value is not without challenges. It demands continuous attention to market trends, regulatory changes, and competitive dynamics (Cremers, 2016). An overemphasis on short-term financial metrics might lead to neglecting long-term sustainable growth, and decisions driven solely by shareholder interests might conflict with other stakeholder needs. Balancing these various elements requires nuanced understanding and strategic thinking.

2.4 Overview of Ghana Stock Exchange

The Ghana Stock Exchange (GSE), which began operations in 1990 and is based in Accra, the nation's capital, is the principal centre for the trading of a variety of different types of securities (Aveh & Awunyo-Vitor, 2017). The Ghana Stock Exchange (GSE) is an exchange that trades government and corporate debt instruments, as well as equity securities issued by Ghanaian corporations. On the GSE, there were around forty firms listed as of the year 2021. These companies came from a variety of industries, including banking, mining, agriculture, manufacturing, and retail (Kyereh, 2016). Over the course of several years, the Ghanaian stock market has seen tremendous expansion. As a result, it has assumed an increasingly important position in the process of raising money for companies, easing the way for investments, and aiding in the expansion of the country's economy (Bunyaminu, Tuffour, & Barnor, 2019). The Ghana Stock Exchange (GSE), although being one of the smallest stock exchanges in

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Africa, has played a significant role in the growth of Ghana's private sector and has assisted in the development of an investing mindset among the Ghanaian population.

The GSE is making more of an effort to encourage environmentally responsible business practices among the firms it has on its stock exchange. In light of the influence that business activities have on both society and the natural world, the GSE has been urging businesses to implement environmentally friendly policies and to increase their level of openness by adopting more stringent reporting requirements (Bunyaminu et al., 2019; Kyereh, 2016). In order to achieve this goal, the GSE has been hard at work developing a sustainability disclosure standard that will encourage listed companies to disclose on the Environmental, Social, and Governance (ESG) practises they have implemented. Nevertheless, the GSE, much like other stock exchanges in developing nations, is confronted with significant difficulties in its efforts to foster sustainability. It is possible for there to be a large disparity between the listed firms regarding the level of sustainability practises and reporting (Aveh & Awunyo-Vitor, 2017). There are still many businesses that are in the preliminary phases of comprehending sustainability and incorporating it into their business operations and reporting methods. To encourage businesses to embrace and report in full on their sustainable practises, there is a need for improved awareness, capacity building, and supporting regulatory frameworks. These are all things that need to be in place.

In addition, despite the fact that the GSE has been successful in listing a number of firms, it is continuing to work towards growing the total number of companies that are listed as well as strengthening the market's liquidity (Kyereh, 2016). In order to do this, continuous efforts will need to be made to establish an atmosphere that is conducive for companies and investors, to encourage investor education, and to

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construct a solid regulatory framework that protects investors and guarantees the integrity of the market. In spite of these obstacles, the Ghana Stock Exchange (GSE) continues to play an essential part in Ghana's economic growth, and the efforts it makes to promote sustainability are expected to have a substantial influence on the general business climate in Ghana (Aveh & Awunyo-Vitor, 2017; Bunyaminu et al., 2019). It is anticipated that as the GSE continues to expand and mature, it will progressively serve as a platform for economically sustainable growth and development in Ghana.

2.5 Measuring Level of Sustainability Disclosure

Empirical research has placed a significant emphasis on the assessment of sustainability reporting. A variety of measurements have been utilised in studies to evaluate the quantity and quality of disclosures on sustainability (Al-Shaer & Zaman, 2016; Jadoon, Ali, Ayub, Tahir, & Mumtaz, 2021), which has provided avenues to investigate the effect that sustainability reporting quality has on shareholder value. The following strategies have shown to be effective in many cases.

First of all, disclosure indices measurement. Disclosure indices have been devised by researchers in order to assess the existence and depth of information on sustainability contained within business reports (Jadoon et al., 2021). These indexes make use of certain criteria or frameworks in order to evaluate the amount of information disclosed on sustainability. They encompass a wide variety of topics related to sustainability, such as environmental performance, social impact, governance practices, and the participation of stakeholders. The Global Reporting Initiative (GRI) Index and the Sustainability Accounting Standards Board (SASB) Materiality Map are two prominent examples (Madison & Schiehll, 2021; Wu, Shao, & Chen, 2018). Secondly, reporting frameworks disclosures of sustainability can be structured

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according to these principles and standards, which are provided through sustainability reporting frameworks like GRI and SASB (Bose, 2020; Parfitt, 2022). Researchers frequently make use of these frameworks in order to analyse the conformity and completeness of the sustainability reports provided by firms. Researchers are able to evaluate the overall quality of organisations' sustainability disclosures as well as the degree to which these disclosures are comparable by determining the degree to which corporations align themselves with recognised reporting standards (Parfitt, 2022; Truant, Corazza, & Scagnelli, 2017).

Also, Truant et al. (2017) posit that personal evaluation instruments is another form of measurement in sustainability. Some of the studies make use of instruments for self-assessment, which enable businesses to judge their own levels of sustainability performance and reporting practises in accordance with a set of established standards (Shields & Shelleman, 2020). With the use of these tools, businesses are able to evaluate their sustainability practises in relation to a wide range of criteria, including economic, social, and environmental considerations (Truant et al., 2017). The data from the self-assessment may be analysed by researchers so that they can determine the level of sustainability reporting and the link between it and shareholder value. Researchers have quantitatively evaluated the amount of sustainability reporting as well as its influence on financial performance, shareholder value, and other pertinent outcomes by utilising various assessment methodologies (Shad, Lai, Fatt, Klemeš, & Bokhari, 2019). Studies, for instance, have been conducted to investigate the relationship that exists between sustainability disclosure indices and market-based metrics of shareholder value, such as stock prices and market returns (Shad et al., 2019; Shields & Shelleman, 2020). In

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addition to this, they have investigated the connection that exists between adhering to reporting standards and measuring financial success.

Also, academics have looked at the relationship between self-assessment data on a company's performance in the area of sustainability and shareholder value. Studies have been conducted to determine, by analysing the findings of self-assessment tools (Berzosa, Bernaldo, & Fernández-Sanchez, 2017). Whether or not the efforts of businesses to assess and report on their sustainability practises have a beneficial effect on the financial success of the business and the perceptions of investors (Berzosa et al., 2017; Opferkuch, Caeiro, Salomone, & Ramos, 2021). Using these measuring methodologies, empirical research has offered useful insights into the links that exist between sustainability reporting and shareholder value.

2.6 Empirical Review and Hypothesis Development

2.6.1 Corporate Governance Compliance and Stock Market Performance

Corporate governance encompasses the practices and procedures that dictate how a company is directed and controlled. These mechanisms are crucial in aligning management's interests with those of shareholders. Empirical evidence has shown that corporate governance plays a vital role in enhancing shareholders' value. Effective corporate governance ensures that the interests of management align with those of shareholders. Jensen and Meckling (1976) introduced the agency theory, explaining that governance structures minimize the conflicts between management and shareholders. Fama and Jensen (1983) further confirmed that well-designed governance mechanisms lead to alignment of interests, ultimately contributing to increased shareholders' value.

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Corporate governance practices that emphasize transparency and accountability build trust and confidence among shareholders. La Porta et al. (2000) found that countries with robust legal protections for investors and stringent corporate governance rules had higher valuations in their capital markets. This trust translates into increased investment and a positive impact on shareholders' value. Good corporate governance practices also contribute to better risk management. Tuggle et al. (2010) demonstrated that firms with sound governance were more adept at navigating uncertainties and mitigating risks. This proactive risk management protects shareholders' investments, thereby preserving and even enhancing shareholders' value.

Corporate governance compliance facilitates decision-making processes that enhance efficiency and strategic alignment within a firm. Gompers et al. (2003) revealed that firms with stronger shareholder rights exhibited higher firm value, better profitability, and greater efficiency. The improved alignment with corporate strategy also has a direct impact on shareholders' value. Despite these benefits, some studies have raised concerns that an excessive focus on governance can become bureaucratic and stifle innovation (Wright et al., 2007). However, the majority of empirical evidence, such as studies by Bebchuk et al. (2009), counter this argument, showing that governance practices tailored to the firm's context can foster innovation while safeguarding shareholders' interests.

The relationship between corporate governance compliance and stock market performance is empirically well-founded and robust. Through alignment of interests, building trust, risk management, and promoting efficiency and strategic alignment, corporate governance significantly contributes to enhancing shareholders' value. While there are potential criticisms, the prevailing evidence strongly supports the essential

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role that governance plays in modern corporate strategy and value creation for shareholders. On this basis, the study proposes the following hypothesis;

There is a significant positive relationship between corporate governance compliance and firm's stock market performance.

2.6.2 Corporate Governance compliance and Sustainability Disclosure

Corporate governance and sustainability disclosure are increasingly interconnected in the contemporary business landscape. Empirical studies have delved into the nexus between governance structures and sustainability reporting, shedding light on how governance can foster corporate responsibility and ethical behaviour. Board diversity has been identified as a factor positively influencing sustainability disclosure. Bear et al. (2010) found that companies with more diverse boards, particularly those including women and individuals from varied backgrounds, were more likely to engage in transparent sustainability reporting. The diversity seemed to promote a broader perspective, enabling more comprehensive consideration of sustainability issues.

Stakeholder engagement is another governance aspect that impacts sustainability disclosure. Companies with strong stakeholder involvement often show a higher commitment to sustainability reporting (Andriof & Waddock, 2002). Engaging stakeholders in the decision-making process ensures that various social and environmental interests are considered, leading to more transparent and responsible reporting. Corporate governance that emphasizes ethical guidelines tends to foster quality sustainability disclosure (Jamali et al., 2008). Firms with well-established ethical standards and corporate governance policies have been found to be more

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committed to transparent and responsible sustainability practices. Such guidelines create a framework for accountability and integrity in reporting, enhancing the quality of sustainability disclosure.

Corporate governance also plays a crucial role in ensuring compliance with relevant sustainability regulations. Ioannou & Serafeim (2012) showed that adherence to governance standards is often aligned with compliance with sustainability regulations, thus promoting better sustainability disclosure. Compliance with regulations not only safeguards the firm against legal issues but also sends positive signals to investors and stakeholders about the firm's commitment to sustainable practices. Some critics argue that the focus on governance may lead to a compliance-driven approach to sustainability, lacking genuine commitment (Adams, 2002). However, studies such as those by Amran et al. (2014) counter this criticism, showing that effective governance structures enable a strategic approach to sustainability that goes beyond mere compliance.

The relationship between corporate governance and sustainability disclosure is multifaceted and empirically well-supported. Through elements such as board diversity, stakeholder engagement, ethical guidelines, and compliance, corporate governance positively influences the likelihood and quality of sustainability disclosure. Despite some criticisms, the prevailing evidence indicates that governance plays an essential role in shaping corporate sustainability practices, aligning them with broader societal expectations and ethical considerations.

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2.6.3 Sustainability Disclosure and Stock Market Performance

Companies engaging in sustainability disclosure signal a commitment to transparency and ethical behavior (Dhaliwal et al., 2011). By openly reporting on sustainability practices, firms can convey a sense of responsibility and accountability, characteristics that are appealing to modern investors. Eccles et al. (2014) found that companies with robust sustainability reporting witnessed better performance in the stock market, suggesting a link between disclosure and shareholders' value. Socially responsible investors, those who consider social, environmental, and ethical criteria, are increasingly significant in financial markets (Renneboog et al., 2008). These investors often look for transparency in sustainability practices, and companies that actively disclose such information may become more attractive to them. Clark et al. (2015) observed a positive relationship between sustainability disclosure and investment inflows from socially responsible investors, translating into increased shareholders' value.

Sustainability disclosure can provide companies with a competitive advantage (Porter & Kramer, 2006). Firms that are leaders in disclosing sustainability information tend to stand out in the market, differentiating themselves from competitors. As a result, they may attract not only more investments but also customers who are concerned about sustainability. Luo et al. (2015) empirically showed that sustainability leaders often enjoyed a superior market position, which translated into increased shareholders' value. Despite the positive relationship, some critics argue that sustainability disclosure may divert resources from profit-centered activities, potentially eroding shareholders' value (Margolis & Walsh, 2003). However, studies like those by Eccles et al. (2014) counter

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this view, demonstrating that sustainability investments can indeed align with shareholders' interests, leading to long-term value creation.

The empirical relationship between sustainability disclosure and shareholders' value is multi-dimensional and robust. From signaling ethical commitment to attracting socially responsible investors, and conferring competitive advantage, sustainability disclosure seems to play a vital role in enhancing shareholders' value. While there might be concerns about the potential misalignment between sustainability and profit, the growing body of evidence overwhelmingly supports the view that sustainability disclosure is an essential element of contemporary corporate strategy that directly contributes to shareholders' value.

2.6.4 Mediating role of Sustainability Disclosure

The intertwining of corporate governance, shareholder's value, and sustainability disclosure represents a contemporary paradigm shift in business, reflecting the multifaceted nature of corporate responsibility. Various empirical studies have explored this tripartite relationship, showing how they inform and shape each other. This intricate interconnection can be broken down into several key aspects. Corporate governance sets the foundation for both shareholder's value and sustainability disclosure. It includes the rules, practices, and structures that guide a company's management. Eccles et al. (2014) showed that companies with strong governance practices tend to engage more in sustainability initiatives, which in turn can positively influence shareholder's value. Good governance promotes accountability and ethical conduct, laying the groundwork for transparent sustainability reporting.

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The pursuit of shareholder's value often aligns with sustainability goals, and this alignment is fostered by effective governance. Shareholders are increasingly recognizing the importance of sustainability, leading to a convergence of financial performance and sustainable practices (Clark et al., 2015). A study by Dhaliwal et al. (2012) showed that sustainability disclosure had a positive impact on shareholder's value, signifying that responsible corporate behavior is rewarded by the market. Transparency and ethical conduct within governance structures play a pivotal role in connecting shareholder's value with sustainability disclosure. A study by Jo and Harjoto (2011) demonstrated that corporate social responsibility (CSR) activities, guided by transparent governance, led to an increase in firm value. Ethical conduct, driven by governance, builds trust with shareholders and facilitates sustainability disclosure.

The interconnected nature of governance, shareholder's value, and sustainability disclosure creates a synergy where the success in one area fosters success in the others. This synergistic relationship was explored by Bénabou and Tirole (2010), who found that sound governance practices that emphasize social responsibility can lead to a virtuous cycle of increased sustainability disclosure and enhanced shareholder's value. Despite the positive relationship, some researchers argue that the focus on sustainability might divert resources from profit-oriented goals (Margolis & Walsh, 2003). However, studies such as those by Flammer (2015) counter this view, showing that sustainability investments often lead to long-term value creation for shareholders.

The relationship between corporate governance, shareholder's value, and sustainability disclosure is complex, dynamic, and integral to modern corporate strategy. Governance acts as the linchpin, connecting shareholder's value with sustainability disclosure. This tripartite relationship underscores the need for a holistic

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approach to corporate management where financial performance, ethical conduct, and social responsibility are interwoven. It reflects a progressive business philosophy that recognizes the intricate balance between economic success and societal well-being. On this basis, the study proposes the following hypothesis;

Sustainability disclosure mediate the relationship between corporate governance compliance and firm's stock market performance.

Control Variables

Industry Type

The influence of a firm's industry on various organizational practices and outcomes has been a subject of substantial empirical inquiry. In the context of corporate governance compliance and sustainability disclosure, understanding the impact of industry affiliation is crucial due to its potential confounding effect on the relationship under study.

Kansal et al. (2014) conducted a comprehensive analysis of sustainability disclosure practices across different industries. The study highlighted significant variations in the extent and quality of sustainability disclosures among industries. Specifically, firms operating in environmentally sensitive industries such as mining, oil, and chemicals were found to emphasize environmental, health, and safety issues to a greater extent compared to firms in less environmentally sensitive sectors. This suggests that industry characteristics can influence firms' disclosure practices, potentially affecting the relationship between sustainability disclosure and other variables such as stock market performance.

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Similarly, Welbeck et al. (2017) examined the effect of industry type on firms' environmental disclosure practices. The study categorized firms into extractive and manufacturing industry based on their direct environmental impact. It was found that environmentally sensitive (extractive) firms, subject to stricter environmental regulations, tended to disclose more information about their environmental activities compared to less sensitive(manufacturing) firms. This indicates that industry regulation and sensitivity to environmental issues could act as significant determinants of sustainability disclosure practices, warranting careful consideration when analyzing the relationship between disclosure and stock market performance.

Moreover, studies have shown that industry characteristics can shape firms' responses to corporate governance requirements and expectations. For instance, Hermalin and Weisbach (2020) found that the effectiveness of corporate governance mechanisms varied across industries, with certain governance practices being more prevalent or effective in specific sectors. This suggests that industry-specific factors, such as market structure, competition level, and regulatory environment, may influence the relationship between corporate governance compliance and sustainability disclosure.

In light of these findings, controlling for firm industry becomes imperative in empirical studies examining the relationship between corporate governance compliance, sustainability disclosure, and stock market performance. Failure to account for industry-specific effects may lead to biased estimates and erroneous conclusions. By including industry as a control variable, researchers can better isolate the true effects

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of corporate governance and sustainability disclosure and stock market performance, thereby enhancing the robustness and validity of their findings.

It is therefore noteworthy that, empirical research underscores the importance of considering firm industry as a control variable in studies investigating the relationship between corporate governance compliance, sustainability disclosure, and stock market performance. Industry characteristics can significantly influence firms' disclosure practices and responses to governance requirements, potentially confounding the observed relationships. By controlling for industry effects, researchers can better elucidate the independent impacts of governance and disclosure on financial outcomes, contributing to a more nuanced understanding of corporate behaviour and its implications for investors and stakeholders.

Firm Size

The impact of firm size on corporate governance practices, sustainability disclosure, and financial performance has been extensively studied in the literature. Understanding the influence of firm size is crucial for disentangling its potential confounding effects on the relationships under investigation.

Research by Dhaliwal et al. (2011) provides insights into the relationship between firm size and sustainability disclosure. The study found that larger firms tend to engage in more extensive sustainability reporting compared to smaller counterparts. This phenomenon can be attributed to larger firms having greater resources, organizational capabilities, and stakeholder pressures to disclose sustainability information. Therefore, when examining the relationship between sustainability disclosure and stock market

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performance, controlling for firm size is essential to isolate the effects of disclosure independent of firm size-related factors.

Similarly, Gompers et al. (2019) explored the relationship between firm size and corporate governance practices. The study revealed that larger firms often exhibit stronger governance structures and practices, including board independence, executive compensation transparency, and shareholder rights protection. However, the effectiveness of governance mechanisms may vary across different size categories, with smaller firms facing unique challenges and incentives. Controlling for firm size allows researchers to assess the impact of governance practices on stock market performance while accounting for variations in firm size-related factors.

Moreover, empirical evidence suggests that firm size moderates the relationship between corporate governance and financial performance. Adams and Mehran (2003) found that the positive association between board independence and firm value is more pronounced in larger firms, indicating that governance practices may have differential effects depending on firm size. By controlling for firm size, researchers can examine the direct impact of governance mechanisms on stock market performance while accounting for potential size-related variations in governance effectiveness.

Hence, firm size plays a significant role in shaping corporate governance compliance and sustainability disclosure. Larger firms tend to engage in more extensive disclosure and adopt stronger governance structures, which may influence their stock market performance. Therefore, controlling for firm size is essential in empirical studies to isolate the effects of governance and disclosure practices on stock market performance from the influence of firm size-related factors. By doing so, researchers can enhance

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the robustness and validity of their findings, providing valuable insights into the mechanisms through which corporate behaviour affects financial outcomes.

Firm Age

Considering the influence of firm age on corporate governance practices, sustainability disclosure, and stock market performance is crucial for controlling for its potential confounding effects in empirical studies. Firm age can capture the developmental stage, maturity, and experience of a company, which may impact its governance structures, disclosure practices, and financial outcomes.

Research by Bebchuk et al. (2015) sheds light on the relationship between firm age and corporate governance. The study found that older firms tend to have more established governance mechanisms, including experienced boards of directors and formalized governance policies. Older firms may benefit from accumulated organizational knowledge and institutional memory, leading to more effective governance practices. Therefore, controlling for firm age is essential to isolate the effects of governance practices on stock market performance from the influence of firm age-related factors.

Similarly, Clarkson et al. (2011) examined the association between firm age and sustainability disclosure. The study suggested that older firms may be more inclined to engage in sustainability disclosure due to their longer-term orientation, stakeholder relationships, and institutional pressures. Older firms may have developed greater awareness of environmental and social issues over time, leading to more comprehensive disclosure practices. Controlling for firm age allows researchers to assess the impact of

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sustainability disclosure on stock market performance while accounting for variations in firm age-related factors.

Moreover, empirical evidence suggests that firm age moderates the relationship between corporate governance and financial performance. Boone et al. (2017) found that the relationship between board characteristics and firm performance varies across different age cohorts, with older firms experiencing stronger governance-performance linkages. By controlling for firm age, researchers can examine the direct impact of governance mechanisms on stock market performance while accounting for potential age-related variations in governance effectiveness.

In summary, firm age plays a significant role in shaping corporate governance practices, sustainability disclosure, and financial performance. Older firms may have more established governance structures and engagement in sustainability discloure, which may influence their stock market performance. Therefore, controlling for firm age is essential in empirical studies to isolate the effects of governance and disclosure practices on stock market performance from the influence of firm age-related factors. By doing so, researchers can enhance the robustness and validity of their findings, providing valuable insights into the mechanisms through which corporate behaviour affects financial outcomes.

2.7 Conceptual Framework

The conceptual framework for understanding the mediating effect of sustainability disclosure on the relationship between corporate governance and shareholders' value is an insightful approach to analyse how governance practices influence shareholders' value through sustainability initiatives. This framework

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connects the dots between governance structures, sustainability disclosure, and the perception of value by shareholders, offering a model to understand these interconnected relationships. Corporate governance refers to the rules, practices, and structures by which a company is directed and controlled. It encompasses aspects like board diversity, ethical guidelines, regulatory compliance, and stakeholder engagement. Research has shown that good governance practices are closely aligned with sustainability disclosure. Companies with transparent and accountable governance structures are often more proactive in disclosing their sustainability practices (Jamali et al., 2008).

Sustainability disclosure involves the reporting of environmental, social, and governance (ESG) activities by a company. It's a way for firms to communicate their sustainability efforts to shareholders, regulators, and other stakeholders. The governance structures and ethical guidelines influence the quality and extent of sustainability disclosure (Ioannou & Serafeim, 2012). Sustainability disclosure sends signals to the market about the company's commitment to responsible practices. This can have a positive impact on shareholders' value as socially responsible investing becomes more prevalent (Dhaliwal et al., 2012). Shareholders' value refers to the financial and non-financial returns that shareholders receive from their investment in a company. This may include share price appreciation, dividends, and the overall reputation of the firm. Robust governance practices often lead to increased shareholder value through enhanced efficiency, risk management, and alignment with shareholder expectations (Jo & Harjoto, 2011).

The framework posits that sustainability disclosure acts as a mediator, conveying the impact of corporate governance on shareholders' value. As companies

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adopt transparent governance and disclose their sustainability practices, they send positive signals to shareholders, thereby enhancing their perceived value. In this framework, corporate governance sets the tone for organizational behaviour, influencing both sustainability disclosure and shareholders' value. Sustainability disclosure acts as a bridge, mediating the effect of governance on shareholder value, reflecting how modern corporations are judged not only on financial performance but also on their societal and environmental impact. The conceptual framework for the mediating effect of sustainability disclosure provides a coherent model to analyse how corporate governance is translated into shareholder value through sustainability practices. It resonates with the growing emphasis on corporate social responsibility and offers valuable insights for both scholars and practitioners interested in sustainable business strategies. The conceptual framework on which the study is premised is shown in Figure 1.

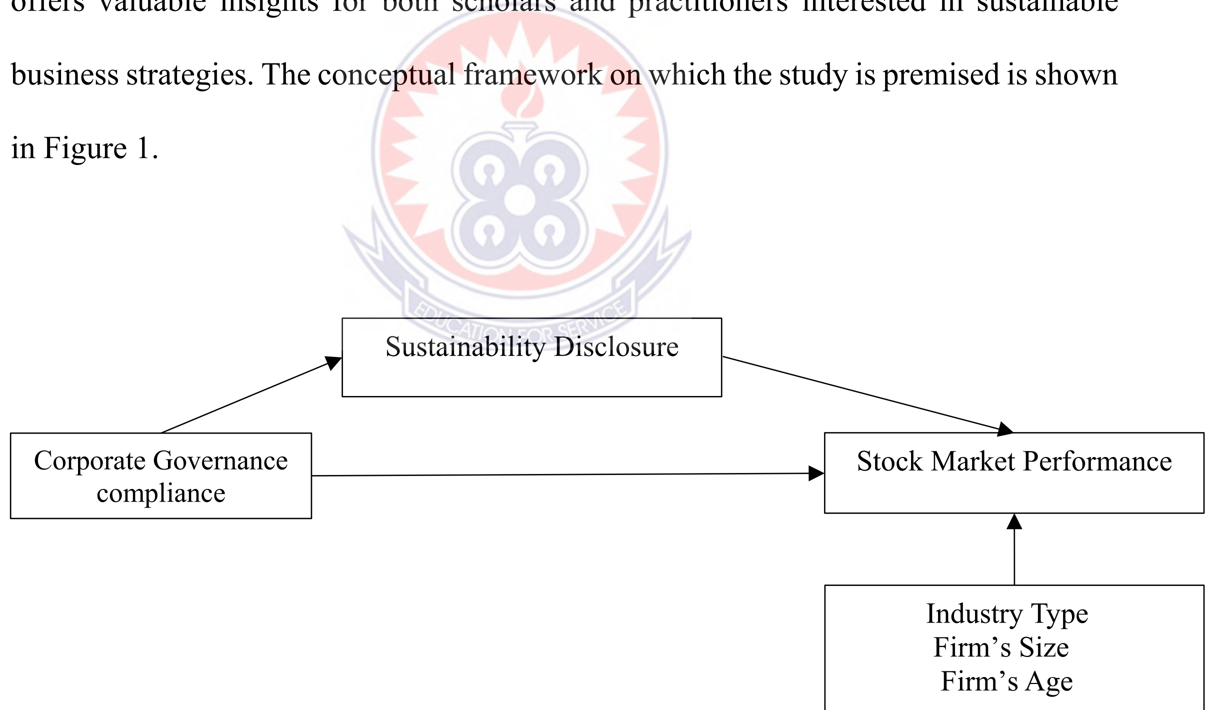

Figure 1: Conceptual Framework

Source: Author construct (2023)

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2.8 Chapter Summary

This literature review provides an overview of key theoretical perspectives (signalling theory, stakeholder theory, and agency theory) that inform the study. It also highlights the empirical evidence regarding the measurement of sustainability reporting, the relationship between sustainability reporting quality and shareholder value, and the role of corporate governance in this relationship. Building upon this foundation, the study develops a conceptual framework and outlines the importance of control variables to ensure robust analysis.

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CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

This chapter presents a discussion of the means by which the study was carried out. It specifically describes the methods applied in collecting and analyse the data for the study in order to attain the research objectives of the study. The chapter is organized into as follows: the next section describes the research philosophy adopted in the study where the research approach and design of the study are described. This is followed by a description of the research population from which the sample for the study was selected. It also describes the sample selection procedure as well as the instruments applied in collecting the data for each variable. This is followed by description of the statistical method applied in analysing the data collected. The measurement model on which the study is based is also described. The chapter conclude with ethical considerations observed in carrying out the study.

3.2 Research Paradigm

Research in accounting has been widely identified to establish general laws that covers the comportment of empirical events in a scientific manner, hence enabling researchers to connect their knowledge of different phenomena (Belkaou, 2004). Accordingly, the basic research question of the study (that is, what is the role of sustainability disclosure in the linkage between corporate governance compliance stock market performance?) inherently presupposes that, there exist a real effect of corporate governance compliance on stock market performance and the role played by sustainability disclosure which is independent of the observation made in this study,

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hence in terms of what constitutes reality, the study builds on the assumption of ontological realism. Also, though the real effect of corporate governance compliance on stock market performance are facts that do exist, the current study aimed at identifying what constitutes valid knowledge about the effect of corporate governance compliance on stock market performance and how such knowledge can be gained, thus, in terms of epistemological stance, the study adopts an objective approach to knowledge building and hence appeals to positivists' assumptions (Creswell, 2014).

Consequently, the positivist philosophy, which is based on scientific research principles, was adopted as the research paradigm for the study. As such, the study is associated with the view held by the positivism philosophy that, research is a science, and as such is deterministic and mechanistic; hence, observations and measurement are the main instruments for gaining factual knowledge about a phenomenon. Positivism adopts the empiricist view where knowledge is gain from human experience, as such, observations from the study are quantified, leading to statistical analysis. Positivist is free from individual beliefs, judgment and personal assertion, and as a result, knowledge based on positivism is externally objective. Also, the findings of this approach are internally consistent as the findings of the study can be accurately be replicated following strictly, the methodological approach used and the same population, provided the assumptions of the positivist approach are all met. In carrying out the current study, the data obtained and the results presented from the empirical analysis are strictly based on the data gathered from the financial reports of the companies selected for the study which forms the sampling units; thus, the result of the study is independent of the researcher's own subjective reasoning.

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3.3 Research Design

The study employed the correlational research design in analyzing how corporate governance compliance influence stock market performance and the role of sustainability disclosure plays in this relationship. Research design apparently is the overall blueprint that the study follows in achieving its objectives. Correlational research is a type of nonexperimental research in which the researcher measures two variables and assesses the statistical association (i.e., the correlation) between them with little or no effort to control extraneous variables (Chiang *et al.*, 2015). Basically, two reasons have been put forward as a motivator for researchers interested in statistical association between variables would choose to conduct a correlational study. First, they do not believe that the statistical association is a causal one. Second, the statistical association may be a causal one, but the researcher cannot manipulate the independent variable because of its impossibility, impracticality, or unethical (Chiang et al., 2015). Thus, we chose correlational research design because the objectives of the study seek to find the association between corporate governance practices by the listed firms and their stock market performance but not their causal relationship since neither of these variables are manipulated.

3.4 Research Approach

To achieve the research objectives, the study adopted a quantitative approach. The primary purpose of quantitative research, according to Bryman (2016), is to collect numerical data on the variable of interest to characterize a specific occurrence. This method involves gathering data and then subjecting it to various statistical analysis, and analysing it from the researcher's point of view (Asor et al., 2018). The quantitative technique should be employed when it's important to deduce statistical inferences and

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relationships among different variables. Therefore, a considerable segment of the population can be assumed when generalizing the conclusion from the analysis. Therefore, a quantitative method is acceptable given that the study's aim is to examine and understand statistical data on corporate governance, stock market performance and sustainability disclosure.

3.5 Research Population

A population is defined as the total collection of elements about which we wish to make some inferences (Becker, 2017). Sekaran and Bougie (2016), views population as the entire group of individuals, events, or objects having common observable features. The population of the study constitutes the 37 companies listed on the Ghana Stock Exchange as at 31 December, 2022 spread across five industries; financial, manufacturing, extractive, telecommunication and distribution.

3.6 Data and sampling procedure

In selecting the sample for the study, focus was placed on companies in the extractive and manufacturing industry since their activities have direct effect on the environment. Also, focus was placed on companies within the aforementioned industry that has been listed on the Exchange for the past six year up to 31 December, 2022. The time span for the study is from 2017 to 2022. The study period was chosen to coincide with significant global events like the COVID-19 pandemic and the Russian-Ukraine war, emphasizing the importance of robust corporate governance and transparent sustainability reporting. Unlike many developed countries where sustainability reporting is mandatory for listed firms, Ghana lacks such requirements despite environmental regulations. Consequently, there's limited transparency regarding companies' environmental compliance. Furthermore, the absence of specific accounting

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standards accentuates the necessity of this study. To address these gaps, the Ghana Stock Exchange, in collaboration with partners, introduced the Environment, Social, and Governance (ESG) manual. This manual aims to enhance transparency and accountability by guiding listed companies in collecting, analysing, and disclosing ESG information in line with international standards. The study contributes to these efforts by examining how ESG reporting in Ghana may impact shareholder value, highlighting the significance of sustainability disclosure in connecting corporate governance practices with shareholder value. As the ESG manual becomes part of listing obligations, this study offers insights into the potential implications for investors and stakeholders in the Ghanaian market. Consequently, by end of December 2022, 14 companies (five (5) from the extractive industry and nine (9) from the manufacturing industry) met the sampling inclusion criteria, that is, listed for at least six years up to December 2022 (see Appendix 1 for the list of these companies) and hence, these companies were purposely chosen for the study.

A balanced panel data of 84 observations was therefore used for the study to reflect firms' specific heterogeneity. Annual data on the study variables for the selected companies was mainly collected from repository of Ghana Stock Exchange which provides detailed financial and non-financial information for all listed companies over the study period. Whenever the repository does not provide enough information or has missing data values, a careful check and double-check of the data is made from other alternative data sources as best as possible such as annual reports provided by individual firms from their official websites as complementary sources in tracing missing or unavailable data points.

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3.7 Measurement of sustainability disclosure

The level of sustainability disclosure of listed firms is measured using a sustainability reporting checklist consistent with the G3 guidelines by Global Reporting Initiative (GRI). Malaysian Code on Corporate Governance (2012) requires disclosure of sustainability strategies and implementation in annual reports even though the items to be disclosed are not specified in the MCCG (2012). Consequently, the present study, in consistent with previous studies such as Jamil (2020), measured the level of sustainability disclosure based on the checklist in accordance with GRI requirements. The checklist (as stated in Appendix 2) contains 48 sustainability reporting items, categorized into three performance indicators; economic (7 items), environmental (16 items) and social (25 items).

Consistent with Al-Tuwaijri et al. (2004), level of sustainability disclosure is measured using the weighted scoring method (as against the dichotomous method) to highlight the levels of emphasis given to particular item disclosed. According Freedman and Jaggi (2005), the weighted scoring method enable comparison between poor and excellent disclosure, which cannot be captured by other alternative methods. This yielded an index known as sustainability disclosure index (SDI), obtained using a six-point scale adopted from Janggu et al. (2014) with some modification to suit the context of the study. The index is for each firm is computed by the ratio of actual score of sustainability reporting awarded to the maximum score attainable by the firm for various years. This scale is originally measured on a six-point scale with 0 = No disclosure, 1 = Item mentioned in general (in one or two sentences), 2 = Brief explanation (in three to five sentences), 3 = Items described in great details with photos or justification, 4 = Items briefly described, which included cost incurred and photos or

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graph, 5 = Detailed explanation of activities or items with cost involved. However, for the purpose of the current study, the Janggu et al. (2014) scale was modified as shown in Table 1.

Table 1: Adopted scale for level of sustainability measurement

Scale	Janggu et al. (2014) scale	Modified scale for current study
0	No disclosure	No disclosure (No statement on sustainability)
1	Item mentioned in general (in 1 or 2 sentences)	General disclosure (1 to 2 sentences)
2	Brief explanation (in three to five sentences)	Brief qualitative description (3 to 5 sentences without quantification)
3	Items described in great details with photos or justification	Detailed qualitative explanation – (more than 5 sentences without quantification)
4	Items briefly described, which included cost incurred and photos or graph	Quantitative disclosure with brief description (1 to 5 sentences)
5	Detailed explanation of activities or items with cost involved	Quantitative disclosure with detailed explanation (more than 5 sentences)

This scale was adopted due to its ability to takes into account both extent and the nature of the information disclosed (whether qualitative or quantitative disclosure). The use of graphics such as photos, charts and graphs were not mainly considered in the adopted scale since these are considered as only a supplement to and not a substitute for text and narrative disclosure of information (GRI, 2002), and may even be part of systematic manipulation for impression management (Cho et al., 2012).

3.8 Corporate Governance Compliance

Corporate governance principles as contained in the code are usually embedded in the transparency and reporting initiatives of corporate entities which are aimed at reducing the problem of information asymmetries between the management and shareholders (Ho and Taylor, 2013). Thus, it serves as important guidelines for directors

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to perform their oversight responsibilities and to efficiently monitor the management (Abd. Hamid et al., 2012). Thus, there is a higher probability for firms with a solid structure of corporate governance to have a higher degree of transparency in terms of sustainability reporting which will intend reflect in the value of shareholders. A more robust corporate governance structure is measured as higher compliance with codes of corporate governance and is expected to result in a greater extent and quality of information disclosure, including sustainability reporting which have the tendency of improving the value of shareholders worth. Corporate governance is measured as a construct following the procedure adopted by Adams and Mehran (2012), Hillman and Dalziel (2003) and Leng (2004). In this direction, the construct was measured using three indicators; Board size, Board composition and number of committees operated by the board. Board size was measured as the total number of members of the board of directors. Board composition is the proportion of non-executive directors to the total directors on the board. The number of board committees present in each company is used as proxy for the third variable.

Compliance is also measured using a corporate governance checklist which is composed based on the principles and recommendations stipulated in the MCCG (2012) (Appendix 2). The checklist contains 26 items and the extent of compliance was measured using the dichotomous scoring method where corporate governance score was obtained to denote the extent of compliance. In this method, a score of 1 is allocated for each item disclosed in the annual reports of the firm, 0 if otherwise. Corporate governance compliance is calculated by the ratio of total scores given (based on dichotomous scoring method) to the total maximum score obtainable by the firm.

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Shareholder value was measured using the market price and book value per share of the equity capital of the selected companies. The summary of measurement for all of the variables used in the study is described in Table 2.

Table 2: Measurement of variables

Variables		Operational Measurement	Data source
Dependent variable: Stock market performance			
EPS	Earnings per share	Basic EPS determined in accordance with IAS 33	Financial statement in annual reports
PER	Price-earnings ratio	Market price per share to earnings per share	Financial statement in annual reports
PEG	Price-earnings ratio to growth ratio	Year-on-year growth in price earnings ratio	Financial statement in annual reports
PBR	Price to Book value ratio	Market price per share to book value per share	Financial statement in annual reports
DPR	Dividend Payout ratio	Dividend per share to earnings per share	Financial statement in annual reports
DYR	Dividend yield	Dividend per share to market price per share	Financial statement in annual reports
Independent variable: Corporate governance compliance			
BS	Board Size	total number of members of the board of directors	Statements on corporate governance in annual reports
BC	Board Composition	proportion of non-executive directors to the total directors on the board	Statements on corporate governance in annual reports
NC	Number of standing committees operated by the board	The number of board committees present in each company	Statements on corporate governance in annual reports
CGCS	Compliance with codes on corporate governance	Corporate governance compliance score that is computed by the ratio of total scores given (based on dichotomous scoring method) to the total maximum score obtainable by the firm (See Appendix 3)	Statements on corporate governance in annual reports
Moderating variable: Sustainability disclosure			
SD	Sustainability disclosure	Sustainability reporting index for economic performance, environmental, labour practice and decent work, human right, society and product responsibility (based on a weighted scoring method) that is computed by the ratio of actual score of sustainability reporting awarded to the maximum score attainable by the firm (See Appendix 2)	Annual report and stand-alone sustainability report
Control variables			

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IT	Industry Type	1 - Extractive industry 0 - Manufacturing industry	Annual Financial Report
FS	Firm's Size	Log of total Assets	Annual Financial Statement
FA	Firm's Age	Number of years in operation	Certificate of commencement

3.9 Data analysis

This section discusses the statistical tool applied in analysing the data collected. It also discusses the method applied in assessing the validity and reliability of the constructs during the confirmatory factor analysis.

3.9.1 Structural equation modelling

The structural equation modelling (SEM) technique was applied in analysing data collected. SEM, just as regression models and ANOVAs, is classified under generalized linear models. Mertens, Pugliese, and Recker (2016) posit that, the defining characteristic that delineates SEM from regression models is the presence of many regression equations within one model such that the outcome of one equation can be used to predict another set of regression equation(s) in the same model and at the same time. The current study adopted the structural equation modelling approach for the following reasons; Firstly, Mertens *et al.* (2017) posit that SEM is preferable where the research model involves unobservable latent constructs that are not directly measurable. In the current study, all the three constructs (including the dependent variables) in the research model (see Figure 1) are unobserved variables that are measurable through their manifest indicators (proxies), hence making the SEM techniques suitable for the study. Secondly, Mertens *et al.* (2017) posit that SEMs are more suitable in situations where the research specification model involves complex hypothesized relationships between multiple endogenous and multiple exogenous variables, including mediation or moderation effects. The current study builds on three hypothesized relationships

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between the exogenous and endogenous constructs, plus one mediator effect (*see Figure 1*). Clearly, the presence of mediation or indirect effects make statistical analysis complex and hence justifies the application of SEM in the study. Lastly, in addition to the above, Hair *et al.*, (2014) posits that SEM technique of analysis is preferable where the study seeks to answer questions like "How much variance in the dependent variables does the model explain?"; "What is the directionality of the independent variables' effects on the dependent variables"? and "What is the strength and the significance of the effects?". The hypothesized relations in this study as indicated in chapter two clearly seeks to answer questions such as these and as such justifies the application of SEM in this study.

3.9.2 Covariance-Based or Variance-Based?

In applying the SEM in analysing the data collected, the study recognized that, there are two approaches to SEM, namely; the Covariance-Based SEM (CB-SEM) and the Variance-Based SEM (PLS-SEM). The study made use of the PLS-SEM technique. According to Hair, Ringle, and Sarstedt (2011), the philosophical distinction between CB-SEM and PLS-SEM is straightforward. If the research objective is theory testing and confirmation, then the appropriate method is CB-SEM, in contrast, if the research objective is prediction and theory development, then the appropriate method is PLS-SEM. Since the objective of the study is to predict the relationship between corporate governance compliance and stock market performance of listed firms, the PLS-SEM approach is deemed appropriate. The choice of PLS-SEM is further justified as follows;

First, it is appropriate to use the PLS-SEM technique when the objective of applying structural modelling is prediction and explanation of dependent variables, or theory building rather than theory confirmation (Henseller, 2009; Hair *et al.*, 2011). In

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fact, Herman Wold who developed the PLS technique even positioned it as a method for prediction (Wold, 1975). Accordingly, as the primary aim of the study is to predict the effect of corporate governance compliance on stock market performance, application of the PLS-SEM is more appropriate than the CB-SEM approach.

Secondly, complexity of relationships; PLS-SEM is well-suited for analysing complex relationships among variables, especially when there are multiple latent constructs and observed indicators. In our study, we are examining the relationships between corporate governance compliance, sustainability disclosure, and stock market performance, which involve multiple constructs with interrelated indicators. PLS-SEM allows for the modelling of these complex relationships effectively.

Third, in terms of sample characteristics, it is noteworthy that PLS-SEM works efficiently with small sample sizes comparative to CB-SEM. This characteristic makes PLS-SEM a technique of choice for corporate governance studies of this nature (Amidu *et al.*, 2011). According to Hair *et al.* (2011), PLS-SEM usually achieves higher statistical power and easily reach convergence than CB-SEM, especially when faced with small sample size.

3.9.3 Mediation analysis

The study seeks to explore the mediating role of sustainability disclosure between corporate governance compliance and stock market performance. Mediation analysis in this study was performed using the bootstrapping approach following Preacher and Hayes (2008), a selection over Baron and Kenny's (1986) Mediation Analysis and the Sobel test (1982). The bootstrap approach is a non-parametric resampling test that makes no normality assumptions about data, thus making it fit for

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smaller sample sizes (Hair *et al.*, 2014). When this approach is adopted in testing for mediation effect, three conditions must be satisfied.

First, the direct path relationship (without the presence of mediation) between the independent variable (corporate governance compliance) and the dependent variable (stock market performance) must be significant, where the relationship is found to be insignificant, it suggests the absence of mediation (Hair *et al.*, 2014; Wong, 2015).

Second, the indirect path relationship after introducing the mediator variable must also be significant to justify mediation analysis. The last stage is to compute the Variance that the mediator variable accounts for (VAF). Where the VAF is lesser than 20%, it suggests that no mediation exist, however, a VAF ranging 20-80% signifies partial mediation; whereas a VAF greater than 80% is considered a full mediation effect (Preacher & Hays, 2008).

According to Hadi, Abdullah and Sentosa (2016), the bootstrap approach to mediation analysis is better able to detect mediation effect with certainty. The other two approaches to mediation analysis have met with criticisms that make them unsuitable for the study. For example, the Sobel test of mediation makes normality assumptions about data distribution but Hair *et al.* (2014) joins Bollen and Stine (1990) in arguing that the distribution of mediation effect is usually skewed especially when small sample size is involved, thus making the Sobel test unsuitable for the PLS-SEM technique, which makes practically no assumption about data distribution and also works well with small sample sizes. Pardo and Roman (2013) have also criticized the Baron and Kenny's (1986) approach to mediation analysis on the grounds that it requires a

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statistically significant relationship between all paths involved in the mediation relationships, including the direct relationships.

3.9.4 Confirmatory factor analysis

Even though the scales adopted for the study to measure the constructs have been validated and tested for their reliability in previous studies, it is necessary to verify how well the data collected fits the hypothesized model (model fitness test) and also test for the reliability and validity of the construct for the measurement model. To do this, a confirmatory factor analysis (CFA) was performed. In carrying out the CFA, an assessment of internal consistency, indicator reliability, convergence validity, and discriminant validity (Campbell & Fiske, 1959; Hair *et al.,* 2014) were undertaken to ensure validity and reliability in the measurement model.

3.9.4.1 Internal consistency

Internal consistency as a reliability measure is premised on the correlations between various measurement items on a similar test. The intuition is that several items that purport to measure a single underlying construct should produce similar results (Hair *et al*., 2014). The Cronbach alpha (Cronbach, 1951) criterion and the Composite Reliability **(CR)** score are used to assess the internal consistency of the measurement model in this study. As a heuristic, a Cronbach alpha score equal to or above 0.70 is required to establish internal consistency; the same heuristic applies to the **CR** criterion (Nunnally, 1978; Hair *et al.,* 2014). Hair *et al.* (2014) notes that where a construct fails to satisfy the Cronbach alpha test of reliability but satisfies Composite Reliability (**CR**) test, such construct should be retained since the Composite Reliability test is a more

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robust test of internal consistency. Results of such tests are discussed in chapter four of this study.

3.9.4.2 Indicator reliability

Indicator reliability is another concept related to outer model reliability. A measurement variable (indicator) whose standardized correlation with its associated construct (also known as loadings) is at least 0.708 is assumed to be reliable. Albeit literature recommends a loading of at least 0.708 to warrant the inclusion of an indicator in the measurement model, such a rule may be violated. For example, Hair *et al.* (2014) note that social science researchers often observe weaker indicator loadings below the 0.708 threshold. In such instances, Hair *et al.* (2014) and Henseller (2009) posit that an indicator (measurement variable) may still be retained based on the relevance of its content (Content validity). Again, Hair *et al.* (2014) advices that rather than automatically eliminating indicators when their outer loading is below 0.708, researchers should assess if elimination of the indicator will improve Composite reliability (CR) and average variance extracted (AVE); that is, it is justified to remove a weak indicator if its removal improves CR and AVE values. Besides, psychometrists (e.g., Nunnally & Bernstein, 1994; Churchill, 1979) recommends eliminating reflective indicators from the measurement model at all cost if their outer standardized loadings are smaller than 0. 40. To ensure higher validity and reliability in this study, all indicators with loadings lesser than 0.60 were removed (Henseller, 2009).

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3.9.4.3 Convergence Validity

Convergent validity assesses the extent to which indicators that purport to measure an underlying construct are positively related (Hair *et al.*, 2014). The intuition is that since indicators of a reflective construct are treated as different ways of measuring the same construct, it is expected that all indicators that measure a particular construct should converge, be related or share a high proportion of variance. To establish convergent validity on the construct level, Fornell and Larcker (1981) recommend using the average variance extracted (AVE) as a criterion for convergent validity assessment. An AVE is simply the proportion of variance that a latent construct shares with its underlying indicators. As a heuristic, an AVE value of at least 0.5 is required. The implication is that the construct explains at least 50% (half) of variations in its underlying indicators. Also, the standard factor loading (SFL) with bootstrapping which indicates convergent validity if all indicators load significantly on their respective construct with a loading coefficient ranging of at least 0.7 (Bagozzi and Yi, 2012; Hair *et al.*, 2014), indicating acceptable item convergence on the intended construct and bootstrapping result indicating a significant loading at 5%. A more robust measure, Rho_A was also applied which indicate a construct validity if it showed a result above the cut-off 0.75 as recommended by Dijkstra and Henseler (2015).

3.9.4.4 Discriminant Validity

The discriminant validity test assesses whether concepts or measurements that ought not to be related are actually not related. In this study, three main tests were carried out in assessing discriminant validity of the research constructs, namely the Heterotrait-Monotrait Ratio of Correlations, the Fornnel-Larcker test of discriminant validity, and the Cross Loadings criterion (Hair *et al.*, 2014).

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Firstly, the HTMT Criterion was used in assessing Discriminant Validity. Henseller, Ringle, and Sarstedt (2015) in a simulation study concluded that a lack of discriminant validity is better detected by the HTMT approach than other approaches. The HTMT approach takes the correlations among indicators across latent constructs (Heterotrait-Hetero method Correlations) and divide it by the correlations of indicators for each specific latent construct (i.e., the average of the Monotrait-Heteromethod Correlations) to the extent that, when the ratio of correlation between two different constructs is close to one (1), it implies a lack of discriminant validity. A correlation is regarded as close to one when it exceeds 0.90 (Gold *et al.* 2001). Results of the application of such criterion are discussed in chapter four.

In addition, the Fornell-Larcker Criterion was employed in assessing Discriminant Validity. The Fornell-Larcker criterion requires that to establish discriminant validity, a construct should share more variance with its underlying variables than with any other construct in the research model. In statistical terms, the square root of each construct's Average Variance Extracted (AVE) must be greater than its correlation with other constructs in the research model. Results of the application of the **Fornell-Larcker** test are presented and discussed in chapter four.

Finally, the Loadings Criterion was employed to confirm the discriminant validity of the measurement model. With this criterion, the loading of each indicator on the associated construct is expected to be greater than all of its cross-loadings with other indicators in order to establish discriminant validity. Results of cross-loadings of the measurement variables are presented and discussed in chapter four.

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3.9.5 Inner/structural model Assessment

According to Hair et al. (2014), after validity and reliability assumptions are met for the outer model, the inner model must also be assessed and interpreted. In this study, a-six step approach is adopted in assessing and interpreting the inner model. This is outlined as follow;

First is to assess collinearity. In theory, it is expected that no collinearity should exist within the structural model, but in practical terms, this is seldom the case (Hair *et al.,* 2014). The Variance inflation factor (VIF) quantifies the severity of multicollinearity to the extent that a VIF value of five (5) and above indicates potential collinearity problem (Hair, Ringle & Sarstedt, 2011). Discussion of collinearity in the estimated model is presented in Chapter four. This is followed by assessment of significance of path relationship. This is done in order to establish the level of significance between hypothesized relationships. In this study, path relationships are estimated in a two-tailed test at 5% significance level. An exogenous construct is deemed to have established a significant relationship with the endogenous construct if its associated test-statistics (t-statistics) value is equal to or greater than 1.96. Thirdly, following evaluation of path significance, inner model evaluation is undertaken by assessing the predictive ability of the structural model, using the coefficient of determination (also referred to as R square (R^2)). This measurement (i.e., R^2) shows to what degree the exogenous construct(s) are explaining the endogenous constructs. A guideline provided by Chin (1998), and Moore (2013) holds that R2 values within the ranges of 0-49%, 50-69% and above 70% are interpreted as weak, moderate and substantial respectively. R^2 value of the estimated research model is discussed in chapter four.

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In addition, the effect of each individual predictor variable is assessed using Cohen's effect size (f^2). The f^2 measures the relative importance of independent variables (s) in explaining the dependent variables. As a rule of thumb, effect sizes of 0.02, 0.15, and 0.35 are considered as small, moderate, and substantial (Cohen, 1988). These results are discussed in chapter four.

The last but one stage in assessing the structural model entails evaluating the overall predictive relevance of the structural model, also referred to as Stone-Geisser's Q^2. According to Geisser (1974) and Stone (1974), a Q^2 value greater than zero (0) signifies that the structural model has predictive relevance. Finally, after assessing the inner model, the result of the structural model is then discussed.

3.10 Chapter summary

The study builds on positivists' philosophical assumptions regarding reality. Using quantitative approach, data was collected from the annual report and stand-alone sustainability reports of listed firms from 2017 to 2022. Using data from 14 companies who met the sampling inclusion criteria, that is listed for the past at least six years from 2017, a Variance-Based Structural Equation Modelling was adopted as the technique of data analysis. The result of the analysis of the data collected is presented in the next chapter.

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CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Overview

This chapter discusses the results obtained from the analysis of the data collected in relation to the objectives of the study. The chapter is organised into two sections; first section presents and discusses the result on measurement of sustainability disclosure quality in relation to the first objective of the study. The second section presents and discuss the result on analysis of the influence of corporate governance compliance on stock market performance of listed firms on the Ghana Stock Exchange and the mediating role of sustainability disclosure quality in the identified relationship. Data collected from the field was analysed using IBM SPSS version 20 and SmartPLS version 3.2.6 (Ringle *et al.,* 2015).

4.2 Measurement of Sustainability Disclosure

This section presents the result on the measurement of the level of sustainability disclosure of the selected firms listed on the Ghana Stock Exchange. Level of sustainability disclosure was measured using a sustainability reporting checklist (as stated in Appendix 2) consistent with the G3 guidelines by Global Reporting Initiative (GRI, 2018) which requires disclosure of sustainability strategies and implementation in annual reports. The checklist contains 48 sustainability reporting items, categorized into three performance indicators; economic (7 items), environmental (16 items) and social (25 items). The social performance indicator is further analysed into three

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performance indicators; Labour practice and decent work (9 items), Human right (6 items), Society (6 items) and product responsibility (4 items).

Level of level of sustainability disclosure was measured using the weighted scoring method where an index known as sustainability disclosure index (SDI) was obtained using a six-point scale adopted as stated in Table 1. SDI for each firm was computed by the ratio of actual score of sustainability reporting awarded to the maximum score attainable by the firm for various years. The result of the SDI for each firm for the various years is presented in Figure 2.

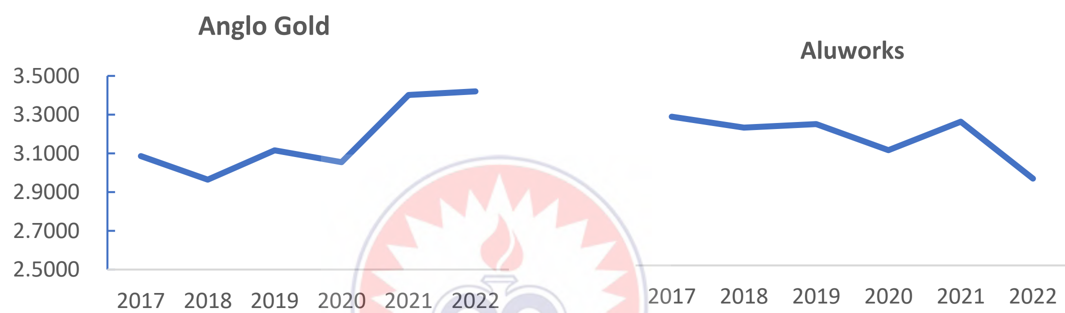

Fig 2(a) SDI for Anglo Gold

Fig 2(b) SDI for Aluworks

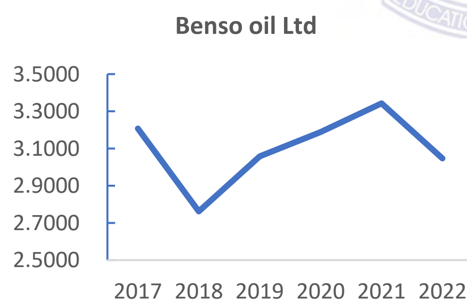

Fig 2(c) SDI for Benso Oil Ltd

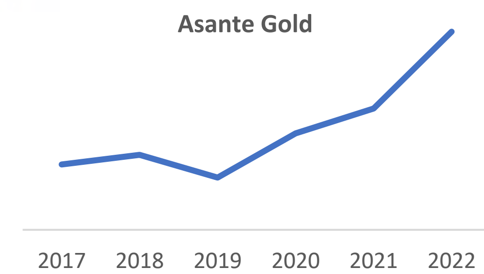

Fig 2(d) SDI for Asante Gold

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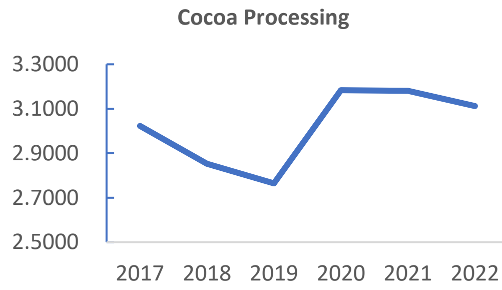


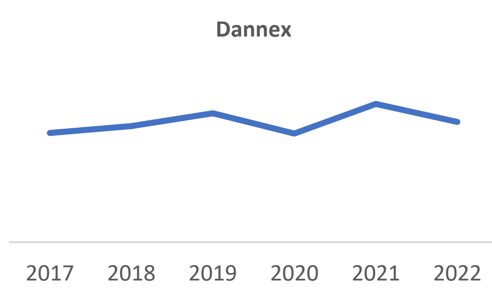
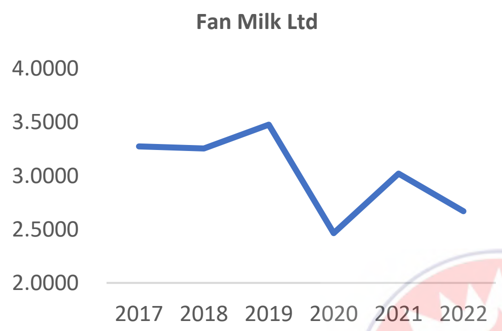


Fig 2(e) SDI for Cocoa Processing

Fig 2(f) SDI for Dannex



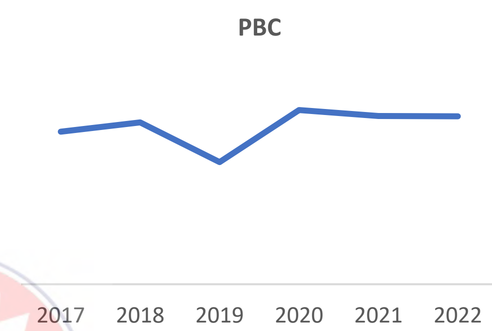
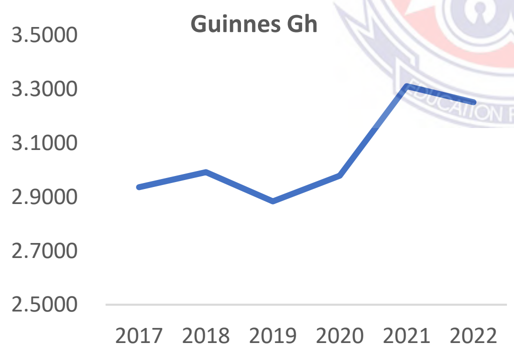


Fig 2(g) SDI for Fan Milk Ltd

Fig 2(h)SDI for PBC



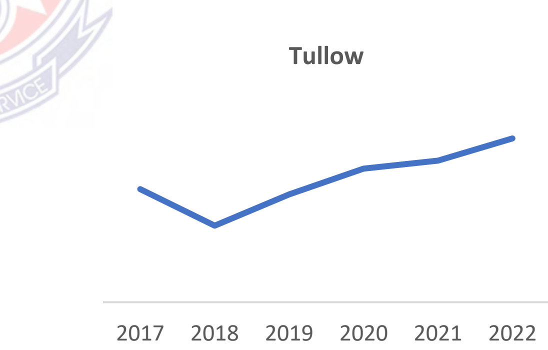


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Fig 2(i) SDI for Guiness GH

Fig 2(j): SDI for Tullow Oil

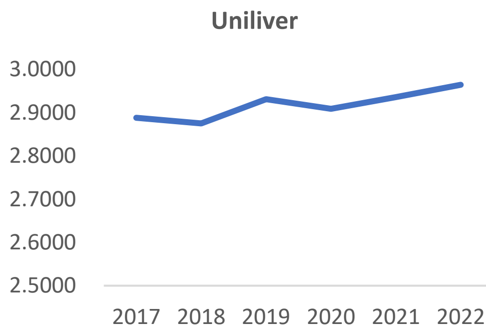

Fig 2(f) SDI for Uniliver

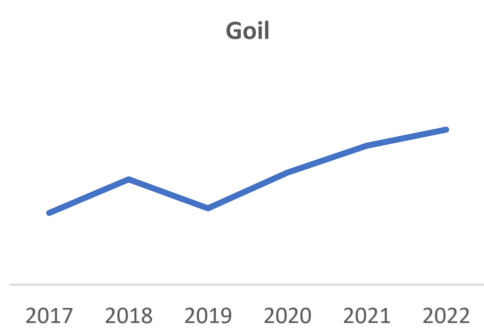

Fig 2(g) SDI Goil

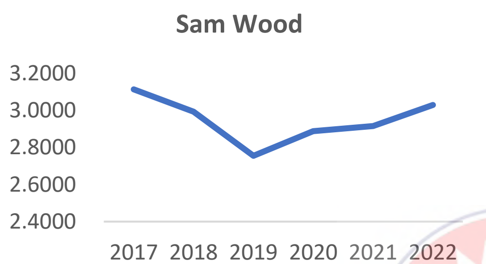

Fig 2(g) SDI for Sam Wood

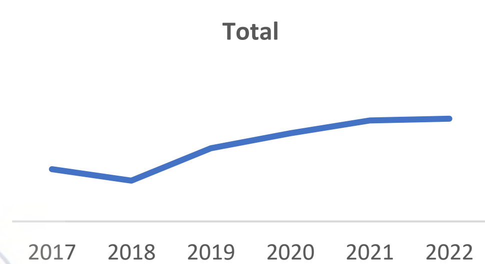

Fig 2(h) SDI for total

Generally, it can be observed that the sustainability index for the companies in the extractive industry is increasing especially in the later part of the sample period. Thus, for Anglo Gold Ghana, the sustainability disclosure level showed a marginal decrease between 2019 and 2020 but after that period, the level of sustainability has increased steadily with index hitting 3.2 in 2022. Similar story can be told about other companies in the industry such as Asante Gold Fields, Tullow oil, Goil and Total Energies in which each of these companies have at least 3.0 SDI in 2022. This is an indication of companies in this industry maintaining their commitment to sustainability disclosure. The average SDI score for these companies is shown in Table 3.

However, for the manufacturing companies, even though some companies are showing a steady rise in their sustainability disclosure performance, companies such as Aluworks, Benso oil, Fan Milk and Gunnies Ghana showed a fall in their sustainability

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performance especially in the later part of the sample period. The average sustainability performance of selected companies is shown in Table 3.

Table 3: SDI for selected firms listed on the Ghana Stock Exchange

	ECP	ENP	LBP	HUR	SOC	PDR	Average	Standard deviation
Anglo Gold Asante	3.238	3.595	3.000	2.600	2.800	3.333	3.094	0.365
Alu works	3.404	3.547	2.928	2.933	3.033	2.875	3.120	0.283
Benson Oil Ltd	3.166	3.619	2.952	3.000	2.866	3.000	3.100	0.272
Asante Gold	3.366	3.719	2.852	3.103	2.967	3.301	3.201	0.371
Cocoa Process	3.523	3.190	2.714	2.833	2.900	2.750	2.985	0.313
Dannex Ayrton	3.238	3.881	2.738	2.733	3.066	2.625	3.047	0.470
Fan Milk Ltd	3.119	3.619	3.047	2.766	2.966	2.875	3.065	0.298
PBC	3.119	3.095	3.071	2.700	3.133	2.708	2.971	0.208
Guinness Ghana	2.690	3.071	3.119	3.100	2.966	2.750	2.949	0.186
Tallow Oil	3.071	2.777	2.785	2.766	2.966	2.583	2.825	0.171
Uniliver	3.047	2.857	2.948	3.133	2.933	2.458	2.896	0.235
Goil	3.142	2.857	2.976	2.900	3.066	2.750	2.948	0.143
Sam Wood	3.000	3.023	2.809	2.800	3.066	2.750	2.908	0.136
Total Energies	2.071	2.996	3.071	2.733	2.966	3.000	2.806	0.378

ECP, Economic Performance; ENP, Environmental Performance; LBP, Labour and Practice and decent work; HUR, Human Right; SOC, Society; PDR, Product Responsibility.

The empirical justification of the trend of SDI among the various firms observed is eminent and consistent with the happenings in the various industries over the study period. After the COVID 19 pandemic in 2020, generally, global trends suggest that the pandemic has heightened awareness of sustainability issues, leading some companies to increase their disclosure efforts to address environmental, social, and governance (ESG) concerns. In the extractive industry for instance, the impact of COVID-19 on sustainability disclosure has been notable. The pandemic has increased scrutiny on social and environmental aspects, pushing many extractive firms to enhance transparency and disclosure in their operations. Stakeholders, including investors and the public, are increasingly interested in understanding how these companies manage environmental risks, ensure worker safety, and contribute to local communities.

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Globally, there has been a growing trend toward integrating environmental, social, and governance (ESG) factors into reporting frameworks, and this trend is likely influencing the extractive industry in Ghana as well. Companies in this sector are recognizing the importance of sustainability disclosures not only for regulatory compliance but also for building trust and securing investments.

The level of sustainability appears to be heightening in the extractive industry as compared to the manufacturing industry. This observation seems to be consistent with the empirical literature. For instance, Mahmood (1999) suggests that disclosure levels reflect the type of industry, whilst Reverte (2009) argued that mining, oil, and chemical industries as emphasising information regarding environmental, health, and safety issues as opposed to finance and insurance companies. This makes such companies more environmentally sensitive. These disclosures are more aligned to companies whose activities affect the environment significantly (Brammer & Pavelin 2006, Brammer & Pavelin 2008; Zeng et al. 2012). Again, firms in sensitive industries comply with strict environmental regulations due to the emission effect of their activities and therefore should disclose their environmental concerns, otherwise stakeholders and especially investors may assume the worst (Cormier and Magnan 2003; Clarkson et al. 2008; Cho and Patten 2007; Hackston and Milne 1996; da Silva Monteiro and Aibar-Guzmán 2010). Moreover, environmentally sensitive industries face greater societal pressure because they are more likely to be associated with visible environmental concerns, like pollution and risk of environmental disasters (Brammer and Pavelin 2006; da Silva Monteiro and Aibar-Guzmán 2010). If these firms, therefore, fail to disclose their environmental performance, environmental pressure

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groups, NGO's, government and the general public may mount pressure on them, because they may be perceived as defying the social contract.

4.3 Corporate Governance Compliance and Stock Market Performance

This section presents and discuss the result of analysis of data necessary to achieve the second and third objective. The second objective of the study seeks to assess the linkage between corporate governance compliance and stock market performance of listed firms while the third objective seeks to examine the mediating role of sustainability disclosure in the linkage between corporate governance compliance and stock market performance. Structural equation modelling was applied in achieving both objectives. This section is organised as follows; the result of validation analysis is presented and discussed where model fitness, validity and reliability assessment of the tools used in measuring the study variables for the second and third objective are assessed through confirmatory factor analysis. This is followed by descriptive statistics of the responses obtained from the data collection and inter-correlations analysis among the study variables and hypothesis testing of the hypothesized model using the bootstrapping.

4.4 Confirmatory Factor Analysis (CFA)

Despite the fact that the scales adopted to measure the study constructs have been tested and validated for their validity and reliability in previous studies, it is necessary to verify the validity and reliability of the instruments used in measuring the constructs in the current study and also examine how well the data collected fits the hypothesized model (model fitness test) study. To do this, a confirmatory factor analysis (CFA) was performed. In carrying out the CFA, focused was placed on

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assessment of model fitness and assessment of the outer model of the hypothesized model.

4.5 Model fitness test

As stated earlier, the model fitness test was carried out to be satisfied whether or not the hypothesized model fits the data obtained from the field. Analysis of the data from the 14 companies over the six-year period for model fitness test showed that, a three-factor hypothesized model (Corporate Governance Compliance and Stock Market Performance mediated by Sustainability Disclosure) had a good fit to the data. The model fitness test for the three-factor hypothesized model showed SRMR = 0.031, NFI = 0.977 and RMS θ = 0.135. Even though the RMS θ threshold seems to be violated, but among the various factor combinations, the three-factor model appears to offer the best model fitness result.

Table 4: Fit indices for the measurement model

Model Fit index Acceptable level	SRMR *(≤ 0.08)*	d_ULS *(p > 0.05)*	d_G *(p > 0.05)*	NFI *(≥ 0.90)*	RMS θ *(< 0.12)*
Three-factor hypothesized model (CGC, SD, SMP)	0.031	0.133	0.318	0.977	0.135
Two-factor hypothesized model (CGC + SD, SMP)	0.048	0.104	0.019	0.912	0.355
Two-factor hypothesized model (CGC, SD + SMP)	0.113	0.041	0.132	0.883	0.145
Two-factor hypothesized model (CGC + SMP, SD)	0.104	0.001	0.005	0.868	0.217
Single-factor hypothesized model (CGC + SD + SMP)	0.211	0.000	0.006	0.855	0.147

Note: *n = 84. CGC – Corporate governance compliance, SD – Sustainability disclosure, SMP – Stock Market Performance.*

Source: Author's computation from annual reports, 2023

The Bootstrapping result for d_LS and d_G showed a probability of acceptance of the null hypothesis of no difference between the implied correlation matrix and the

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empirical correlation matric is at 13.3% and 31.8% respectively, hence, we fail to reject the null hypothesis of no difference and conclude that, there is an insignificant difference between the correlation matrix implied by the hypothesized model and the empirical correlation matrix. Relative to the result of other factor hypothesized model, the three-factor hypothesized model appears to have a parsimonious fit and hence considered for further analysis. The result of the model fitness test of the three-factor hypothesized model together with other factor models is shown in Table 1.

4.6 Outer model assessment

In assessing the outer model, focused was placed on consistency of constructs' indicators, validity of the constructs and reliability of the constructs. The result of the consistency, validity and reliability diagnostics is presented in Table 5.

4.6.1 Internal Consistency

Assessment of internal consistency of a construct aimed at judging whether several indicators that purport to measure the same underlying construct produce similar results. Applying the Cronbach alpha with a minimum acceptable score of 0.70 to indicate internally consistent construct as recommended by Nunnally (1978), Table 5 indicates that, all the constructs in the specification model met the Cronbach criterion. Using the Composite reliability (CR) index, a score of 0.70 is an acceptable level of internal consistency, whereas a higher CR score signifies higher internal consistency. Again, all the constructs satisfy the internal consistency test using the composite reliability index of internal consistency as suggested by Hair *et al.* (2014).

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4.6.2 Validity and Reliability

Validity and reliability test were also carried out as part of the CFA to ascertain validity and reliability of the hypothesized model in Figure 1 is reported in Table 5. Two aspects of validity were tested; convergent validity and discriminant validity. Assessing convergent validity using the standard factor loading with bootstrapping, all the indicators load significantly on their respective construct with a loading coefficient ranging 0.728 to 0.941 for all the factors in the hypothesized model after performing six iterations resulting from step-wise deletion of indicators with lower loadings. These loading exceed the recommended level of 0.7 (Bagozzi & Yi, 2012; Hair *et al*., 2014), indicating acceptable item convergence on the intended constructs.

Table 5: Consistency, validity and reliability diagnostics

Constructs and their indicators	Standard factor loadings with bootstrapping (≥ 0.70)		Composite reliability (CR) (≥ 0.70)		Average variance extracted (AVE) (≥ 0.50)		α (≥ 0.70)	Rho_A (≥ 0.75)
	Initial iteration	Final iteration	Initial iteration	Final iteration	Initial iteration	Final iteration	Final iteration	Final iteration
Corporate Governance Compliance			0.687	0.698	0.822	0.821	0.811	0.734
BS_	0.738***	0.782***						
BC	0.882***	0.844**						
NC	0.770**	0.780**						
CGCS	0.725*	0.795**						
Sustainability Disclosure			0.589	0.721	0.741	0.743	0.842	0.798
ECP	0.903***	0.885***						
ENP	0.867***	0.868**						
LBP	0.704**	0.778***						
HUR	0.557*	Omitted						
SOC	0.890**	0.889***						
PR	0.511*	Omitted						
Stock Market Performance			0.469	0.736	0.695	0.813	0.893	0.710
EPS	0.770**	0.792***						
PER	0.825***	0.741***						
PEG	0.708**	0.721***						
PBR	0.827**	0.706**						
DPR	0.728*	Omitted						
DYR	0.759***	0.815***						

Source: Author's computation from annual reports, 2023

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The bootstrapping result indicate that, the loading obtained are significant at 5% in the final iteration. Also, the reported AVE values indicate that on average, all the constructs in the hypothesized model are able to account for more than half (an AVE above 0.50) of the variance in their underlying indicator items. For example, the construct that recorded the highest AVE was *Corporate Governance Compliance* as it accounted for 82.3% of variation in all of its associated indicators after six iterations. Again, it is also observed from the final iteration in Table 5 that even the latent construct, *Sustainability Disclosure*, with the lowest AVE was 0.743 which exceeds the minimum threshold. This demonstrates that, the measurement items in the hypothesized model are valid as far as convergence is concerned. Applying a more robust measure, Rho_A also showed a result above the cut of 0.75 as recommended by Dijkstra and Henseler (2015). The results indicate a satisfactory convergent validity for all constructs in the measurement model.

4.6.3 Discriminant Validity

Following the procedure adopted by Hair *et al*. (2014), discriminant validity test was carried out using the Heterotrait-Monotrait Ratio of correlations, the Fornnel-Larcker test of discriminant validity, and the cross loadings criterion. The result of these tests is shown in Table 6, Table 7 and Table 8 respectively.

Based on the Heterotrait-Monotrait Ratio of Correlations (HTMT), Table 6 shows the HTMT ratios of correlation between the constructs which meets the threshold of below 0.80 (Gold *et al.* 2001) and are all significant at 5% after conducting the bootstrapping of 500 sub-samples from the 14 firms sampled demonstrating that, the scale measures that are not supposed to relate are actually not relating.

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Table 6: Hetrotrait-Monotrait ratio of correlation

	Study constructs	
	CGC	SD
SD	0.296	
SMP	0.417	0.410

Source: Author's computation from annual reports, 2023

Secondly, applying the Fornell-Larcker criterion to evaluate the adequacy of discriminant validity requires that, the diagonal elements (which is the square root of AVEs) of the Fornell-Larker matrix should be greater than the off-diagonal elements in the corresponding rows and columns. Table 7 shows the results of the Fornell-Larker matrix which demonstrate that, the discriminant validity assumption is satisfied as the correlation between any two latent variables is less than to the square root of AVEs on the leading diagonal elements of underlying constructs. The higher diagonal values of the Fornell-Larket matrix is an indication that, the latent constructs share more variance with its respective underlying indicators than with any other construct in the research model (Henseller, 2009; Hair *et al*., 2014) which is a basic requirement for discriminant validity.

Table 7: Fornell–Larcker criterion

	Study constructs		
	CGC	SD	SMP
CGC	***0.906***		
SD	0.631	***0.862***	
SMP	0.652	0.703	***0.902***

Source: Author's computation from annual reports, 2023

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Table 8: Cross loading on construct indicators

Constructs	Indicators	Corporate Governance Compliance	Sustainability Disclosure	Stock Market Performance
Corporate Governance Compliance	BS	**0.832**	0.621	0.363
	BC	**0.859**	0.619	0.513
	NC	**0.826**	0.551	0.492
	CGCS	**0.926**	0.362	0.484
Sustainability Disclosure	ECP	0.221	**0.955**	0.345
	ENP	0.552	**0.868**	0.509
	LBP	0.426	**0.927**	0.361
	SOC	0.520	**0.912**	0.341
Stock Market Performance	ESP	0.351	0.36	**0.785**
	PER	0.519	0.468	**0.750**
	PEG	0.664	0.591	**0.787**
	PBR	0.587	0.588	**0.794**
	DYR	0.361	0.317	**0.795**

Note: Deleted indicators are not presented; Source: Author's computation from annual reports, 2023

The final technique adopted in assessing discriminant validity involves the examination of indicator cross-loadings. The cross-loading of the indicators shown in Table 8. For discriminant validity, the loading of each indicator on the associated construct is expected to be greater than all of its cross-loadings (Chin, 1998; Hair *et al.*, 2014) with other indicators. From Table 8, it can be observed that, the indicators of each construct have higher loading on that construct and any other construct. For instance, it is observed that the indicators of the construct *Corporate Governance Compliance* loads between 0.826 to 0.926 on its underlying construct but loaded between 0.221 to 0.664 on other constructs. Similar story can be told on other constructs. This is an indication that, all the other measurement variables maintained in the final estimation of results adequately established discriminant validity.

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4.6.4 Construct reliability

Reliability of the indicators in measuring the construct was assess using the standard loading of the indicators for each construct which should be at least 0.708 to be considered reliable. Initial iteration shows a lower loading on some indicators which were deleted in a step-wise manner. After six iterations, the reliability threshold was achieved as shown in Table 5.

In conclusion, the results obtained reveal that the measurement model used in this study has good internal consistency, reliability, convergent validity and discriminant validity. In other words, these results on validity and reliability provide evidence for the instruments used in this study.

4.7 Inter-correlations and descriptive statistics

The object of this section is to describe the data obtained in relation to the study constructs using basic descriptive statistics. It also seeks to assess the appropriateness of the study hypothesis as well as examining whether or not there is the presence of multi-collinearity, absence of which is a necessary condition for structural modelling. Table 9 presents descriptive statistics of the study variables and the correlation between them. The variance inflation factor of the study construct is presented as well.

From Table 9, judging from their skewness coefficient and their kurtosis, all the constructs considered in the study appears to be approximately normally distributed. This observation is necessary for co-variance based structural equation modelling in which the current study applied. On their relationship, it can be observed that, both the independent variable *Corporate Governance Compliance* and the moderating variable, *Sustainability Disclosure,* relate positively with the dependent variable, *stock market performance*. This is an indication that, compliance with corporate governance codes

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and adopting sustainability disclosure practices have the tendency of improving stock market performance.

Table 9: Descriptive statistics and Inter-correlation coefficients

	Descriptive				Inter-correlation coefficients					
	Mean	SD	Skew.	Excess Kurt.	CGC	SD	SMP	IT	FS	FA
CGC	3.151	1.322	0.013	-1.162	(1.411)					
SD	2.865	1.281	0.076	-1.017	0.414	(1.623)				
SMP	2.056	1.209	0.095	-1.057	0.774*	0.876	(1.826)			
IT	0.357	1.362	0.045	-1.068	0.271	0.315	0.315	(1.515)		
FS	6.671	0.157	0.116	-1.094	0.331	0.231	0.261	0.233	(1.783)	
FA	12.67	2.117	0.051	-1.182	0.318	0.221	0.416	0.145	0.214	(1.882)

Note: *n = 84. CGC – Corporate governance compliance, SD – Sustainability disclosure, SMP – Stock Market Performance, IT – Industry Type, FS – Firm size, FA – Firm Age. Figures on the leading diagonal of the correlation matrix put in parenthesis are the variance inflated factors (VIF). *p < 0.05*

Source: Author's computation from annual reports, 2023

Assessing the inner model for multi-collinearity which occurs when there is a strong and significant correlation between two or more predictor variables in a regression model (Field, 2009), Hair *et al*. (2014) recommended two approaches. First, it involves examination of the correlation matrix among the predictor variables. A correlations coefficient greater than or equal 0.90 is an indication of substantial collinearity. From Table 9, the reported highest correlation coefficient among the predictor variables to be 0.414 indicating absence of collinearity. Secondary, to avoid a collinearity due to the combined effect of two or more predictors, as recommended by Hair *et al*. (2014) again recommended the use of the variance inflation factor (VIF) of the predictor variables. Applying the threshold of VIF values of 10 as recommended by Gaur and Gaur (2009) and Hair *et al*. (2014), the VIF values as shown in parentheses on the leading diagonal in Table 9 indicates that, there is no problem of multi-

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collinearity among the predictor variables. Consequently, the hypothesis of the study can now be tested.

4.8 Structural modelling

The hypothesized model was empirically tested using the structural equation modelling (SEM) as it allows all paths to be evaluated concurrently. The result of the path analysis is presented in Table 10. The two set of hypotheses were tested by conducting a bootstrap analysis with bias-corrected 95% confidence interval using the Smart PLS, where 5000 sub-samples were created with observations randomly drawn (with replacement) from the original set of data. As the number of sample units (14 listed firms) is ten times more than the exogenous constructs, the problem of bias estimates of path coefficients and indicator loading is not expected (Chin, 1998) and besides, a bias-corrected 95% confidence interval was constructed, which have the tendency of subsiding the propensity of bias estimate of path coefficient. The results of the bootstrap analysis are also shown in Table 10.

4.8.1 Hypothesis Testing

In order to achieve the second and third objectives of the study, two hypotheses were set to be tested. The first hypothesis seeks to test the relationship between the Corporate Governance Compliance and Stock Market Performance. The second hypothesis seeks to assess the mediating role of sustainability disclosure on the relationship between Corporate Governance Compliance and Stock Market Performance. The result of the hypotheses testing is Table 10 and then discussed in the following sections.

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Table 10: Direct, indirect and total effects of the hypothesized model

	Std Estimate	Std Error	t-value	Bias Corrected 95% CI LLCI	ULCI	p value	Decision on null hypothesis
Standardised direct effects							
CGC → SMP	0.414***	0.140	2.965	0.148	0.653	0.003	Rejected
CGC → SD	0.347***	0.090	3.854	0.177	0.515	0.000	Rejected
SD → SMP	0.291***	0.104	2.798	0.091	0.317	0.002	Rejected
IT → SMP	0.372	0.462	0.805	0.188	0.216	0.103	-
FS → SMP	0.624**	0.214	2.916	0.136	0.815	0.011	-
FA → SMP	0.217	0.315	0.689	0.152	0.527	0.051	-
Standardised indirect effects							
CGC → SD → SMP	0.127**	0.043	2.953	0.025	0.153	0.024	Rejected

Note: *n = 84. CGC – Corporate governance compliance, SD – Sustainability disclosure, SMP – Stock Market Performance, IT – Industry Type, FS – Firm size, FA – Firm Age. Standardised estimate was obtained from 5,000 sub-samples generated from the sample size. **p<0.05; ***p<0.01;*

Source: Author's computation from annual reports, 2023

4.8.1.1 Effect of Corporate Governance Compliance on Stock Market Performance

H1: This hypothesis, predict a direct relationship between Corporate Governance Compliance (CGC) and Stock Market Performance (SMP) of listed firms in Ghana. From Table 6, CGC is positively related to SMP *($r = 0.774$, $p < 0.05$)*. From Table 7, the result of the direct effect of CGC on SMP is positive and is significant at 1% ($\beta = 0.414$, $|t| = 2.965$, $p < 0.01$). Hence, the null hypothesis is rejected at 1% level of significance and concluded that, listed firm's compliance to corporate governance codes has the tendency of improving their stock market performance. This finding lends empirical support to the findings of prior Ghanaian studies of Abor and Biekpe (2007), Abor and Adjasi (2007); Adusei (2011), Tornyeve and Wereko (2012), Kyereboa-Coleman (2006a) and Kyereboa-Coleman and Amidu (2008) and other international studies such as Gordini (2012), Bino and Tomar (2007) and Erkens et al (2012). For example, Kyereboa-Coleman and Amidu (2008) reported statistically significant and

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positive relationship between good corporate governance practices and return on investment among Small and Medium Scale Enterprises in Ghana. Also, Kyereboa-Coleman and Biekpe (2006) reported statistically significant and positive relationship between good corporate governance and return on asset. The findings obtained implies that, compliance with corporate governance codes such as appointment of more non-executive directors to the board, having standing board committees etc. would help to improve the level of profitability and market value. The positive effect can be explained because compliance with corporate governance codes by listed firms enhance corporate competitiveness and provided new strategic outlooks for the firms (Abor & Adjasi, 2007). The findings seem to indicate that the recommendation of Ghana Stock Exchange's Listing Rules (2006) that Ghanaian boards should strictly comply with the codes are made in the interest of the listed firms as this have the tendency of improving their profitability and market value.

Theoretically, the significant and positive association between the corporate governance compliance and stock market performance supports the agency and resource dependency theories. It suggests that complying with good corporate governance practices bring independent judgment to board decisions (Chhaochhria & Grienstein, 2009) and also offer the firm resources in the form of experiences, expertise, business contacts and reputation (Haniffa & Hudaib, 2006). This will help to improve the level of profitability of the firms and hence their market value. This position is on the assumption that compliance will lead to the independency the board from management, but the subject of director independence in relation to the controlling or majority shareholders continue to be a major corporate governance challenge in different industries in Ghana.

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4.8.1.2 Mediating role of Sustainability Disclosure

H2: The second hypothesis predicts the indirect relationship between Corporate Governance Compliance and Stock Market Performance with Sustainability Disclosure (SD) mediating the relationship. From Table 6, CGC is positive and significantly associated with SD *($r = 0.414$, $p < 0.05$).* Also, SD is positively and significantly associated with SMP *($r = 0.876$, $p < 0.05$).* From Table 7, the result of the direct effect of CGC on SD is positive and significant ($\beta = 0.347$, $|t| = 3.854$, $p < 0.05$) and also, the direct relationship SD and SMP is positive and significant at 1% ($\beta = 0.291$, $|t| = 2.798$, $p < 0.01$). Again, the indirect relationship between CGC and SD and then SD and SMP is significant ($\beta = 0.127$ $|t| = 2.953$, $p < 0.05$). Thus, we reject the null hypothesis and concluded that, Sustainability Disclosure partially mediate the relationship between Corporate Governance Compliance and Stock Market performance.

The result obtained implies that, sustainability disclosure is considered to be of higher value by capital market investors as it mediates the linkage between corporate governance compliance and stock market performance. Conradie (2018) stated the relevance of social and environmental accounting (SEA) in enhancing firm's value. It further explains that, sustainability reporting aimed more at financial capital providers, so it does not provide equal treatment to all stakeholders. Basically, economic, social and environmental issues are published in the company's sustainability report and that report discusses the attention paid to those three issues in detail. In particular, this study uses GRI as the basis for preparing a sustainability report. Sustainability report discloses all the company's activities aimed at supporting SDGs and informs investors and other stakeholders in a balanced manner. It is for this kind of corporate concern that investors consider sustainability reporting to be more valuable to investors.

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The findings obtained still lends support to Mcnally et al. (2017) who found that sustainability reporting is still consistently regarded as a natural part of the business process, stakeholder involvement is limited, and guidelines for its preparation are considered to be a disclosure checklist. Furthermore, they noted that sustainability disclosure preparers themselves still do believe that sustainability reports are taken seriously by investors, thus enhancing the linkage between stock market performance and sustainability reporting.

The results indicating that sustainability disclosure partially mediates the relationship between corporate governance compliance (CGC) and stock market performance (SMP) align with both theoretical and empirical reviews. Theoretical perspectives, such as signaling theory, emphasize how sustainability disclosure serves as a signal of a firm's commitment to ethical behavior and long-term value creation (Conradie, 2018). The empirical evidence presented in the study supports this notion by demonstrating a significant positive association between corporate governance compliance and sustainability disclosure, as well as between sustainability disclosure and stock market performance (Conradie, 2018). This suggests that investors perceive sustainability disclosure as valuable information, indicative of a firm's overall governance quality and its potential for financial success. Furthermore, the findings underscore the importance of considering stakeholder interests and societal expectations, as emphasized in stakeholder theory, which suggests that firms with transparent sustainability practices may attract socially responsible investors, thereby enhancing stock market performance (Conradie, 2018).

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Moreover, the empirical results provide insights into the practical implications of sustainability reporting within the context of corporate governance and stock market dynamics. The study's findings highlight the significance of sustainability reporting in enhancing firm value, consistent with previous research indicating that firms engaging in sustainability disclosure tend to enjoy better financial performance and investor confidence (Mcnally et al., 2017). This aligns with stakeholder theory, which posits that companies considering a wide range of stakeholder interests, including environmental and social concerns, are likely to achieve sustainable growth and competitive advantage. Additionally, the results reinforce the importance of governance structures in fostering transparent and responsible sustainability practices, echoing the principles of agency theory, which suggests that effective governance mechanisms align management interests with those of shareholders and stakeholders, thereby enhancing firm performance and value creation (Mcnally et al., 2017).

4.8.1.3 Control variables

In exploring the determinants of sustainability disclosure, the study controlled for the industry type (extractive or manufacturing), firm size and firm's age. From Table 10, it was observed that, the industry type and firm's age does not have significant influence on stock market performance but the size of the firm tends to significantly influence stock market performance. This observation is in line with the findings of De Gooyert et al. (2017) and Eliwa et al. (2021) who concluded that, stock market performance is basically influenced by the market trends rather than firm's characteristics.

4.8.2 Predictive assessment of the structural model

In evaluating the structural model, the coefficient of determination (R^2 value) as it measures of the model's in-sample predictive power and represents the exogenous

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latent variables' combined effects on the endogenous latent variable (Rigdon, 2012; Sarstedt *et al.,* 2014). From Table 11, the R^2 value of Stock Market Performance is 74.3% indicating that, 74.3% of the variation in Stock Market Performance of the firms is substantially explained by the exogenous variables in the research model. Also, 66.3% of the variations in the mediator variable is explained by the variations in the exogenous variables. Nonetheless, as indicated by Hair *et al.* (2014), selecting a model solely based on the R^2 value is not a good approach since adding additional (nonsignificant) constructs to explain an endogenous latent variable in the structural model always increases its R^2 value. The more paths pointing toward a target construct, the higher its R^2 value. This is known as *curse of dimensionality*. To overcome this weakness, we again presented the adjusted R^2 which overcomes this weakness by penalizing the research model in order to eliminate the effects of the *curse of dimensionality*. In the study, an adjusted R^2 value of 72.9% was attained for financial performance which although lesser than the raw R^2 value, it still confirms that variation in Stock Market Performance is substantially explained by the exogenous variables in the research model.

Apart from using the R^2 to assess the predictive power of the hypothesized model, it is necessary to measures the relative importance of the exogenous constructs (CGC) in explaining endogenous constructs (SD and SMP) by observing the change in the R^2 value when a specified exogenous construct is omitted from the model. This is done by estimating the effect size (f^2) through a re-computation of the R^2 through the blindfolding procedure.

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Table 11: Predictive evaluation indices

	Coefficient of determination		Effect size (f^2)		Predictive relevance
	R^2	Adj R^2	SMP	SD	Q^2
CGC	n/a	n/a	0.241	0.030	n/a
SD	66.3	64.8	0.216	n/a	0.365
SMP	74.3	72.9	n/a	n/a	0.425
IT	n/a	n/a	0.152	0.050	n/a
FS	n/a	n/a	0.314	0.061	n/a
FA	n/a	n/a	0.132	0.104	n/a

Note: *n = 84. CGC – Corporate governance compliance, SD – Sustainability disclosure, SMP – Stock Market Performance, IT – Industry Type, FS – Firm size, FA – Firm Age.*

Source: Author's computation from annual reports, 2023

Evaluating the impact of CGC on SMP following the guidelines of Cohen (1988), effect size of 0.241 was attained indicating that, these variables contributed much in explaining the variations in the SMP. Similar story can be told in explaining the variations in SD. In addition to evaluating the is-sample predictive accuracy of the model, the Stone-Geisser's Q^2 value (Geisser, 1974; Stone, 1974) was also applied to measure the model's out-of-sample predictive power or predictive relevance. The model exhibiting predictive relevance is an indication that, the model is accurately predicting data not used in the model estimation. Predictive relevance values larger than zero for a construct proves that the construct has predictive relevance (Hair *et al.*, 2014). As can be seen, the Q^2 values of both endogenous constructs are considerably above zero. More precisely, SMP have the highest Q^2 values (0.425), followed by SD (0.365). These results provide clear support for the model's predictive relevance regarding the endogenous latent variables.

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CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview

This chapter summarizes the findings of the study, draws conclusions and makes policy recommendations based on the findings of the study. The chapter also outlines some the contribution of the study and suggest areas for further research.

5.2 Summary of Findings

This study aimed at exploring the extent to which Corporate Governance Compliance (CGC) is linked to Stock Market Performance (SMP) and the mediating role of Sustainability disclosure in this relationship among extractive and manufacturing firms listed on the Ghana Stock Exchange. In view of this, the study drew from previous studies in relation to the main concepts used in the study which includes Corporate Governance Compliance, Sustainability Disclosure and Stock Market Performance. Data was collected from the annual reports and stand-alone sustainability reports of 14 selected listed firms in Ghana using corporate governance and Sustainability disclosure checklist. The analysis of data collected revealed the following findings based on the research objectives.

First, the study aimed at measuring the level of sustainability disclosure of the selected listed firms using a composite index which contains 48 sustainability reporting items, categorized into three performance indicators; economic (7 items), environmental (16 items) and social (25 items). The social performance indicator is further analysed into three performance indicators; Labour practice and decent work (9

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items), Human right (6 items), Society (6 items) and product responsibility (4 items). It was observed that, firms in the extractive industry maintained high level of Sustainability disclosure as compare to those manufacturing firms. It was also observed that, sustainability index for the companies in the extractive industry is increasing high especially in the later part of the sample period.

Secondly, the findings of the study showed that listed firm's compliance to corporate governance codes have the tendency of improving their stock market performance. As expected, the study findings reveal that, increase corporate governance compliance directly influence their stock market performance which is a confirmation of signalling theory that, when investors are aware of judicious use of the firm resources in their interest, in reflect in their market value. The findings imply that, compliance with corporate governance codes such would help to improve the level of profitability and market value as well as corporate competitiveness and provided new strategic outlooks for the firms (Abor & Adjasi, 2007).

Finally, it was observed that Sustainability Disclosure partially mediate the relationship between Corporate Governance Compliance and Stock Market performance. The result obtained implies that, sustainability disclosure is considered to be of higher value by capital market investors as it partially mediates the linkage between corporate governance compliance and stock market performance.

5.3 Conclusion

The analysis of sustainability disclosure levels among listed companies in Ghana reveals varying trends across different industries. In the extractive industry, there is a notable increase in sustainability disclosure levels, indicating a commitment to

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addressing environmental, social, and governance (ESG) concerns. This trend is consistent with global shifts post-COVID-19, where companies are increasingly focusing on transparency and accountability in response to heightened stakeholder scrutiny. However, in the manufacturing sector, while some companies demonstrate steady improvement in sustainability disclosure, others experience declines, particularly in the later part of the sample period. This variation underscores the importance of industry-specific factors and regulatory environments in shaping sustainability practices. Overall, the analysis provides valuable insights into the current state of sustainability disclosure among listed firms in Ghana, laying the foundation for further examination of its implications for corporate governance and stock market performance.

The empirical findings confirm a significant positive relationship between corporate governance compliance and stock market performance among listed firms in Ghana. Compliance with corporate governance codes is associated with improved profitability and market value, aligning with theoretical perspectives such as agency theory and resource dependency theory. The results underscore the importance of effective governance mechanisms in enhancing firm competitiveness and strategic outlooks. Moreover, the study highlights the relevance of regulatory frameworks, such as the Ghana Stock Exchange's Listing Rules, in promoting corporate governance practices that contribute to shareholder value creation. Overall, the findings provide empirical support for the importance of corporate governance in driving stock market performance in the Ghanaian context.

The analysis reveals that sustainability disclosure partially mediates the relationship between corporate governance compliance and stock market performance

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among listed firms in Ghana. The significant and positive association between corporate governance compliance and sustainability disclosure, as well as between sustainability disclosure and stock market performance, underscores the interconnectedness of these factors. The findings align with theoretical perspectives such as signalling theory and stakeholder theory, emphasizing the importance of transparency, accountability, and stakeholder engagement in driving firm value. Moreover, the study highlights the practical implications of sustainability reporting in enhancing investor confidence and market competitiveness. Overall, the results provide valuable insights into the role of sustainability disclosure as a mediator in the relationship between corporate governance and stock market performance, contributing to a deeper understanding of corporate governance dynamics in the Ghanaian context.

Corporate governance compliance can be viewed as strategic management tool necessary to enhance Sustainability disclosure among listed firms. The findings of this study have shown that, business organizations that comply with corporate governance rules are transparent and fair to the environment which intend reflect in their market performance. The study has also indicated that corporate governance compliance can have direct impact in improving the stock market performance of listed firms. On this basis it can be concluded that firms with much commitment to corporate governance compliance have higher disclosure tendency and through signalling effect, this can translate into improved stock market performance.

5.4 Recommendations

Based on the key findings of the study, the following are recommended for implementation:

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The study revealed that, firms that comply with corporate governance rules do not have intension of increasing their disclosure in sustainability reporting but it comes out when those rules are well complied with. It is therefore essential for organizations to plan for corporate governance compliance consciously so as to improve their transparency level which will affect the disclosure level especially for firms operating in industries that are non-extractive. As such, the study recommends that the compliance with corporate governance rules should be intentional and planed and should be clearly integrated as part of the firm's corporate and business policies. This will in turn help organizations to be transparent in all aspect of their reporting including reporting on their impact on the environment.

From focus discussion with corporate managers in the selected firms and consistent with the extant literature, the study confirmed that, firms that engage in sustainability reporting does so only if it is mandatory. As such, firms do not involuntary disclose their sustainability issues. It is therefore recommended that sustainability disclosure requirement should be made mandatory so that firms will be required to report on how their activities impact on their environment especially for companies listed on the Ghana Stock Exchange.

The study also revealed that, stock market performance is linked to corporate governance compliance through sustainability disclosure. It however observed that, there is a gap between the knowledge and the implementation of sustainability practices. In most cases, the persons in charge of sustainability activities is the one who know how sustainability policies are implemented for which firms may report on. This makes it difficult for the entire organisation structure to appreciate the need for sustainability consciousness. To overcome this, the study recommends that, the concept of

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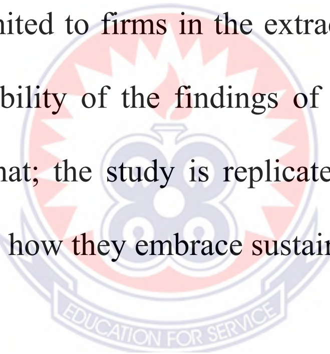
sustainability reporting have to be clarified and be included in the training curriculum of employees so as to educate or inform other people especially other management members within the organization on sustainability activities so as to get a uniform view on the practices of sustainability issues. The education could be done through workshops and seminars, branding and through brochures or sending management e-mails on sustainability activities within the organizations. Aside these, there should be an organizational policy framework to set out clear-cut parameters for sustainability activities so as to avoid the haphazard practices of sustainability. This will help ensure proper accountability on sustainability activities by organizations through disclosure.

5.5 Directions for Future Research

This study was limited to firms in the extractive and manufacturing industry. This limits the generalisability of the findings of the study to other industry. It is therefore recommended that; the study is replicated in other industries such as the service industry to explore how they embrace sustainability issues in their activities.



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REFERENCES

Ab Hamid, M. R., Sami, W., & Sidek, M. M. (2017, September). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. In *Journal of Physics: Conference Series* (Vol. 890, No. 1, p. 012163). IOP Publishing. https://doi.org/10.1088/1742-6596/890/1/012163

Abisuga-Oyekunle, O. A., Patra, S. K., & Muchie, M. (2020). SMEs in sustainable development: Their role in poverty reduction and employment generation in sub-Saharan Africa. *African Journal of Science, Technology, Innovation and Development*, *12*(4), 405–419.https://doi.org/10.1080/20421338.2019.1656428

Abor, J., & Adjasi, C. K. (2007). Corporate governance and the small and medium enterprises sector: theory and implications. *Corporate Governance: The international journal of business in society*, *7*(2), 111-122. https://doi.org/10.1108/14720700710739769

Adams, R. B., & Mehran, H. (2012). Bank board structure and performance: Evidence for large bank holding companies. *Journal of financial Intermediation*, *21*(2), 243-267. https://doi.org/10.1016/j.jfi.2011.09.002

Aevoae, G. M., Andrieș, A. M., Ongena, S., & Sprincean, N. (2023). ESG and systemic risk. *Applied Economics*, *55*(27), 3085–3109. https://doi.org/10.1080/00036846.2022.2108752

Afum, E., Osei-Ahenkan, V. Y., Agyabeng-Mensah, Y., Owusu, J. A., Kusi, L. Y., & Ankomah, J. (2020). Green manufacturing practices and sustainable performance among Ghanaian manufacturing SMEs: the explanatory link of green supply chain integration. *Management of Environmental Quality: An International Journal*. https://doi.org/10.1108/MEQ-01-2020-0019

Agyapong, D., & Arthur, K. N. A. (2018). Sustainable Business Practices Among MSMEs: Evidence from four Metropolitan Areas in Ghana. *ECIE 2018 13th European Conference on Innovation and Entrepreneurship*, 25. Academic Conferences and publishing limited. https://doi.org/10.1177/22785337231162740

Alsahali, K. F., & Malagueño, R. (2022). An empirical study of sustainability reporting assurance: current trends and new insights. *Journal of Accounting & Organizational Change*, *18*(5), 617–642. https://doi.org/10.1108/JAOC-05-2020-0060

Al-Shaer, H., & Zaman, M. (2016). Board gender diversity and sustainability reporting quality. *Journal of Contemporary Accounting & Economics*, *12*(3), 210–222. https://doi.org/10.1016/j.jcae.2016.09.001

Al-Tuwaijri, S. A., Christensen, T. E., & Hughes Ii, K. E. (2004). The relations among environmental disclosure, environmental performance, and economic performance: a simultaneous equations approach. *Accounting, organizations and society*, *29*(5-6), 447-471. https://doi.org/10.1016/S0361-3682(03)00032-1

University of Education,Winneba http://ir.uew.edu.gh

Amidu, M., Effah, J., & Abor, J. (2011). E-accounting practices among small and medium enterprises in Ghana. *Journal of Management Policy and Practice*, *12*(4), 146-155. https://api.semanticscholar.org/CorpusID:167788583

Amoako, K. O., Amoako, I. O., Tuffour, J., & Marfo, E. O. (2022). Formal and informal sustainability reporting: An insight from a mining company's subsidiary in Ghana. *Journal of Financial Reporting and Accounting*, *20*(5), 897–925. https://doi.org/10.1108/JFRA-12-2020-0368

Amponsah-Tawiah, K., & Dartey-Baah, K. (2016). *Corporate Social Responsibility in Ghana: A Sectoral Analysis*. (January 2011), 189–216. https://doi.org/10.1007/978-3-319-26668-8_9

Amran, A., & Keat Ooi, S. (2014). Sustainability reporting: meeting stakeholder demands. *Strategic Direction*, *30*(7), 38–41. https://doi.org/10.1108/SD-03-2014-0035

Anaman, P. D., Ahmed, I. A., Suleman, A.-R., & Dzakah, G. A. (2023). Environmentally Sustainable Business Practices in Micro, Small, and Medium Enterprises: A Sub-Saharan African Country Perspective. *Business Perspectives and Research*, 1–16. https://doi.org/10.1177/22785337231162740

Asor, J. R., Catedrilla, G. M. B., & Estrada, J. E. (2018, March). A study on the road accidents using data investigation and visualization in Los Baños, Laguna, Philippines. In *2018 International Conference on Information and Communications Technology (ICOIACT)* (pp. 96-101). IEEE. https://doi.org/10.1109/ICOIACT.2018.8350662

Aveh, F. K., & Awunyo-Vitor, D. (2017). Firm-specific determinants of stock prices in an emerging capital market: Evidence from Ghana Stock Exchange. *Cogent Economics & Finance*, *5*(1), 1339385. https://doi.org/10.1080/23322039.2017.1339385

Azizi, L., Bien, C., & Sassen, R. (2018). Recent trends in sustainability reporting by German universities. *Sustainability Management Forum*, *26*(1/4), 1–19. https://doi.org/10.1007/s00550-018-0469-8

Baah, C., Opoku-Agyeman, D., Acquah, I. S. K., Issau, K., & Abdoulaye, F. A. M. (2020). Understanding the influence of environmental production practices on firm performance: a proactive versus reactive approach. *Journal of Manufacturing Technology Management*. https://doi.org/10.1108/jmtm-05-2020-0195

Bagozzi, R. P., & Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models. *Journal of the academy of marketing science*, *40*, 8-34. https://psycnet.apa.org/doi/10.1007/s11747-011-0278-x

Barbeito-Caamaño, A., & Chalmeta, R. (2020). Using big data to evaluate corporate social responsibility and sustainable development practices. *Corporate Social Responsibility and Environmental Management*, *27*(6), 2831–2848. https://doi.org/10.1002/csr.2006

University of Education,Winneba http://ir.uew.edu.gh

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173. https://psycnet.apa.org/doi/10.1037/0022-3514.51.6.1173

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173. https://psycnet.apa.org/doi/10.1037/0022-3514.51.6.1173

Battistella, C., Cagnina, M. R., Cicero, L., & Preghenella, N. (2018). *Sustainable Business Models of SMEs : Challenges in Yacht Tourism Sector*. 1–20. https://doi.org/10.3390/su10103437

Bellucci, M., Simoni, L., Acuti, D., & Manetti, G. (2019). Stakeholder engagement and dialogic accounting: Empirical evidence in sustainability reporting. *Accounting, Auditing & Accountability Journal*. https://doi.org/10.1108/AAAJ-09-2017-3158

Berzosa, A., Bernaldo, M. O., & Fernández-Sanchez, G. (2017). Sustainability assessment tools for higher education: An empirical comparative analysis. *Journal of Cleaner Production*, *161*, 812–820. https://doi.org/10.1016/j.jclepro.2017.05.194

Bollen, K. A., & Stine, R. (1990). Direct and indirect effects: Classical and bootstrap estimates of variability. *Sociological methodology*, 115-140. https://doi.org/10.2307/271084

Bose, S. (2020). Evolution of ESG reporting frameworks. In *Values at Work* (pp. 13–33). Springer. https://doi.org/10.1007/978-3-030-55613-6_2

Bryman, A. (2016). *Social research methods*. Oxford university press. https://doi.org/10.4236/oalib.1104376

Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality: An International Journal*, *30*(1), 98–115. https://doi.org/10.1108/MEQ-12-2017-0149

Bunyaminu, A., Tuffour, J. K., & Barnor, C. (2019). Assessing the determinants of business failure of companies listed on the Ghana Stock Exchange. *Journal of Accounting and Finance*, *19*(4), 39–54. https://doi.org/10.33423/jaf.v19i4.2172

Caldera, H. T. S., Desha, C., & Dawes, L. (2018). Exploring the characteristics of sustainable business practice in small and medium-sized enterprises: Experiences from the Australian manufacturing industry. *Journal of Cleaner Production*, *177*, 338–349. https://doi.org/10.1016/j.jclepro.2017.12.265

Cambra-Fierro, J., & Ruiz-Benitez, R. (2011). Sustainable business practices in Spain: a two-case study. *European Business Review*, *23*(4), 401–412. https://doi.org/10.1108/09555341111145780

University of Education,Winneba http://ir.uew.edu.gh

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological bulletin*, *56*(2), 81. https://psycnet.apa.org/doi/10.1037/h0046016

Carballo-Penela, A., & Castromán-Diz, J. L. (2015). Environmental policies for sustainable development: an analysis of the drivers of proactive environmental strategies in the service sector. *Business Strategy and the Environment*, *24*(8), 802–818. https://doi.org/10.1002/bse.1847

Chang, W. F., Amran, A., Iranmanesh, M., & Foroughi, B. (2019). Drivers of sustainability reporting quality: financial institution perspective. *International Journal of Ethics and Systems*, *35*(4), 632–650. https://doi.org/10.1108/IJOES-01-2019-0006

Charan, R., & Freeman, R. E. (1980). Planning for the business environment of the 1980s. *Journal of Business Strategy*, *1*(2), 9–19. https://doi.org/10.1108/eb038895

Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. *MIS quarterly*, vii-xvi. https://www.jstor.org/stable/249674

Ching, H. Y., Gerab, F., & Toste, T. H. (2017). The quality of sustainability reports and corporate financial performance: Evidence from Brazilian listed companies. *Sage Open*, *7*(2), 2158244017712027. https://doi.org/10.1177/2158244017712027

Christensen, H. B., Hail, L., & Leuz, C. (2021). Mandatory CSR and sustainability reporting: Economic analysis and literature review. *Review of Accounting Studies*, *26*(3), 1176–1248. https://doi.org/10.1007/s11142-021-09609-5

Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research*, *16*(1), 64-73. https://doi.org/10.2307/3150876

Clarke, T. (2007). *International corporate governance: A comparative approach*. Routledge. https://doi.org/10.4324/9781315749990

Cohen, J. (1988). Set correlation and contingency tables. *Applied psychological measurement*, *12*(4), 425-434. https://psycnet.apa.org/doi/10.1177/014662168801200410

Considine, J., Botti, M., & Thomas, S. (2005). Design, format, validity and reliability of multiple choice questions for use in nursing research and education. *Collegian*, *12*(1), 19-24. https://doi.org/10.1016/s1322-7696(08)60478-3

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications. https://uk.sagepub.com/en-gb/afr/a-concise-introduction-to-mixed-methods-research/book266037

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, *16*(3), 297-334. https://doi.org/10.1007/BF02310555

University of Education,Winneba http://ir.uew.edu.gh

Cundill, G. J., Smart, P., & Wilson, H. N. (2018). Non-financial shareholder activism: A process model for influencing corporate environmental and social performance. *International Journal of Management Reviews*, *20*(2), 606–626. https://doi.org/10.1111/ijmr.12157

Daka, E. (2017). *CEO Compensation Structure and Bank Risk Taking*. 1–66. https://lup.lub.lu.se/student-papers/search/publication/8922195

De Gooyert, V., Rouwette, E., Van Kranenburg, H., & Freeman, E. (2017). Reviewing the role of stakeholders in Operational Research: A stakeholder theory perspective. *European Journal of Operational Research*, *262*(2), 402–410. https://doi.org/10.1016/j.ejor.2017.03.079

Dijkstra, T. K., & Henseler, J. (2015). Consistent partial least squares path modeling. *MIS quarterly*, *39*(2), 297-316. https://www.jstor.org/stable/26628355

Du, S., Yu, K., Bhattacharya, C. B., & Sen, S. (2017). The business case for sustainability reporting: Evidence from stock market reactions. *Journal of Public Policy & Marketing*, *36*(2), 313–330. https://www.jstor.org/stable/44878344

Eliwa, Y., Aboud, A., & Saleh, A. (2021). ESG practices and the cost of debt: Evidence from EU countries. *Critical Perspectives on Accounting*, *79*, 102097. https://doi.org/10.1016/j.cpa.2019.102097

Elvin, P., & Hamid, N. I. N. B. A. (2016). Ownership structure, corporate governance and firm performance. *International Journal of Economics and Financial Issues*, *6*(3), 99-108. https://doi.org/10.1051/shsconf/202112404005

Erhinyoja, E. F., & Marcella, E. C. (2019). Corporate social sustainability reporting and financial performance of oil and gas industry in Nigeria. *International Journal of Accounting, Finance and Risk Management*, *4*(2), 44. https://doi.org/10.11648/J.IJAFRM.20190402.12

Freedman, M., & Jaggi, B. (2005). Global warming, commitment to the Kyoto protocol, and accounting disclosures by the largest global public firms from polluting industries. *The International Journal of Accounting*, *40*(3), 215-232. https://doi.org/10.1016/j.intacc.2005.06.004

Freeman, R. E. (2016). A stakeholder theory of the modern corporation. In *The corporation and its stakeholders* (pp. 125–138). University of Toronto Press. https://philpapers.org/rec/FREAST-4

Garel, A., & Petit-Romec, A. (2021). Investor rewards to environmental responsibility: Evidence from the COVID-19 crisis. *Journal of Corporate Finance*, *68*, 101948. https://doi.org/10.1016/j.jcorpfin.2021.101948

Gazzola, P., Ratti, M., & Amelio, S. (2017). CSR and sustainability report for nonprofit organizations. An Italian best practice. *Management Dynamics in the Knowledge Economy*, *5*(3), 355–376. http://dx.doi.org/10.25019/MDKE/5.3.03

Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, *61*(1), 101-107. https://doi.org/10.2307/2334290

University of Education,Winneba http://ir.uew.edu.gh

Ghadge, A., Kaklamanou, M., Choudhary, S., & Bourlakis, M. (2017). Implementing environmental practices within the Greek dairy supply chain: Drivers and barriers for SMEs. *Industrial Management & Data Systems*. https://doi.org/10.1108/IMDS-07-2016-0270

Gregurec, I., Tomičić Furjan, M., & Tomičić-Pupek, K. (2021). The impact of COVID-19 on sustainable business models in SMEs. *Sustainability*, *13*(3), 1098. https://doi.org/10.3390/su13031098

Hadi, N. U., Abdullah, N., & Sentosa, I. (2016). Making sense of mediating analysis: A marketing perspective. *Review of Integrative Business and Economics Research*, *5*(2), 62-76. http://dx.doi.org/10.5539/ijbm.v11n6p57

Hahn, R., & Kühnen, M. (2013). Determinants of sustainability reporting: A review of results, trends, theory, and opportunities in an expanding field of research. *Journal of Cleaner Production*, *59*, 5–21. https://doi.org/10.1016/j.jclepro.2013.07.005

Hair, J. F., Gabriel, M., & Patel, V. (2014). AMOS covariance-based structural equation modeling (CB-SEM): Guidelines on its application as a marketing research tool. *Brazilian Journal of Marketing*, *13*(2). http://dx.doi.org/10.5585/remark.v13i2.2718

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science*, *40*, 414-433. http://dx.doi.org/10.1007/s11747-011-0261-6

Haniffa, R., & Hudaib, M. (2006). Corporate governance structure and performance of Malaysian listed companies. *Journal of business finance & accounting*, *33*(7-8), 1034-1062. https://doi.org/10.1111/j.1468-5957.2006.00594.x

Harmadji, D. E., Subroto, B., Saraswati, E., & Prihatiningtias, Y. W. (2018). From theory to practice of signaling theory: sustainability reporting strategy impact on stock price crash risk with sustainability reporting quality as mediating variable. *KnE Social Sciences*. https://dx.doi.org/10.18502/kss.v3i10.3411

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, *43*, 115-135. https://doi.org/10.1007/s11747-014-0403-8

Herremans, I. M., Nazari, J. A., & Mahmoudian, F. (2016). Stakeholder Relationships, Engagement, and Sustainability Reporting. *Journal of Business Ethics*, *138*(3), 417–435. https://doi.org/10.1007/s10551-015-2634-0

Higgins, C., & Coffey, B. (2016). Improving how sustainability reports drive change: a critical discourse analysis. *Journal of Cleaner Production*, *136*, 18–29. https://doi.org/10.1016/j.jclepro.2016.01.101

Hillman, A. J., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management review*, *28*(3), 383-396. https://doi.org/10.2307/30040728

University of Education,Winneba http://ir.uew.edu.gh

Ho, P. L., & Taylor, G. (2013). Corporate governance and different types of voluntary disclosure: Evidence from Malaysian listed firms. *Pacific Accounting Review*, *25*(1), 4-29. http://dx.doi.org/10.1108/01140581311318940

Holden, M. T., & Lynch, P. (2004). Choosing the appropriate methodology: Understanding research philosophy. *The marketing review*, *4*(4), 397-409. http://dx.doi.org/10.1362/1469347042772428

Hu, M., & Loh, L. (2018). Board governance and sustainability disclosure: A cross-sectional study of Singapore-listed companies. *Sustainability*, *10*(7), 2578. https://doi.org/10.3390/su10072578

Jadoon, I. A., Ali, A., Ayub, U., Tahir, M., & Mumtaz, R. (2021). The impact of sustainability reporting quality on the value relevance of corporate sustainability performance. *Sustainable Development*, *29*(1), 155–175. https://doi.org/10.1002/sd.2138

Jamil, A., Mohd Ghazali, N. A., & Puat Nelson, S. (2021). The influence of corporate governance structure on sustainability reporting in Malaysia. *Social Responsibility Journal*, *17*(8), 1251–1278. https://doi.org/10.1108/SRJ-08-2020-0310

Janggu, T., Darus, F., Zain, M. M., & Sawani, Y. (2014). Does good corporate governance lead to better sustainability reporting? An analysis using structural equation modeling. *Procedia-Social and Behavioral Sciences*, *145*, 138-145. http://dx.doi.org/10.1016/j.sbspro.2014.06.020

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Johnson, R. (2020). The link between environmental, social and corporate governance disclosure and the cost of capital in South Africa. *Journal of Economic and Financial Sciences*, *13*(1), 12. http://dx.doi.org/10.4102/jef.v13i1.543

Kucharska, W., & Kowalczyk, R. (2019). How to achieve sustainability? —Employee's point of view on company's culture and CSR practice. *Corporate Social Responsibility and Environmental Management*, *26*(2), 453–467. https://doi.org/10.1002/csr.1696

Kyereboah-Coleman, A., & Biekpe, N. (2006). The relationship between board size, board composition, CEO duality and firm performance: Experience from Ghana. *Corporate Ownership and Control*, *4*(2), 114-122. https://doi.org/10.22495/cocv4i2p11

Kyere, M., & Ausloos, M. (2021). Corporate governance and firms financial performance in the United Kingdom. *International Journal of Finance & Economics*, *26*(2), 1871-1885. https://doi.org/10.1002/ijfe.1883

Kyereh, B. (2016). *Volatility assessment and Var (P) Model for listed insurance companies stock returns, an overview of Ghana stock exchange market*. http://dx.doi.org/10.5923/j.statistics.20150506.04

University of Education,Winneba http://ir.uew.edu.gh

Leng, A. C. A. (2004). The impact of corporate governance practices on firms' financial performance: Evidence from Malaysian companies. *ASEAN Economic Bulletin*, *21*(3), 308-318. https://doi.org/10.1355/AE21-3D

Lucato, W. C., Costa, E. M., & de Oliveira Neto, G. C. (2017). The environmental performance of SMEs in the Brazilian textile industry and the relationship with their financial performance. *Journal of Environmental Management*, *203*, 550–556. https://doi.org/10.1016/j.jenvman.2017.06.028

Madison, N., & Schiehll, E. (2021). The effect of financial materiality on ESG performance assessment. *Sustainability*, *13*(7), 3652. https://doi.org/10.3390/su13073652

Mahrani, M., & Soewarno, N. (2018). The effect of good corporate governance mechanism and corporate social responsibility on financial performance with earnings management as mediating variable. *Asian Journal of Accounting Research*. https://doi.org/10.1108/AJAR-06-2018-0008

Mallin, C. A. (2016). *Corporate governance*. Oxford university press. https://global.oup.com/academic/product/corporate-governance-9780198806769?cc=gh&lang=en&

Manna, A., Sahu, T. N., & Gupta, A. (2016). Impact of ownership structure and board composition on corporate performance in Indian companies. *Indian Journal of Corporate Governance*, *9*(1), 44–66. http://dx.doi.org/10.1177/0974686216635787

Masud, M. A. K., Nurunnabi, M., & Bae, S. M. (2018). The effects of corporate governance on environmental sustainability reporting: Empirical evidence from South Asian countries. *Asian Journal of Sustainability and Social Responsibility*, *3*, 1–26. https://doi.org/10.1186/s41180-018-0019-x

McNally, M. A., Cerbone, D., & Maroun, W. (2017). Exploring the challenges of preparing an integrated report. *Meditari Accountancy Research*, *25*(4), 481-504. https://doi.org/10.1108/MEDAR-10-2016-0085

Mertens, W., Pugliese, A., Recker, J., Mertens, W., Pugliese, A., & Recker, J. (2017). Nested data and multilevel models: Hierarchical linear modeling. *Quantitative Data Analysis: A Companion for Accounting and Information Systems Research*, 61-72. https://doi.org/10.1007/978-3-319-42700-3

Miklosik, A., Starchon, P., & Hitka, M. (2021). Environmental sustainability disclosures in annual reports of ASX Industrials List companies. *Environment, Development and Sustainability*, 1–19. https://doi.org/10.1007/s10668-021-01338-8

Moore, M. G. (Ed.). (2013). *Handbook of distance education*. Routledge. https://doi.org/10.4324/9781315296135

Nguyen, C. P., Wong, Y. J., Juang, L. P., & Park, I. J. (2015). Pathways among Asian Americans' family ethnic socialization, ethnic identity, and psychological well-being: A multigroup mediation model. *Asian American Journal of*

University of Education,Winneba http://ir.uew.edu.gh

Psychology, *6*(3), 273. https://psycnet.apa.org/doi/10.1037/aap0000026

Nguyen, D. T. T. (2020). An empirical study on the impact of sustainability reporting on firm value. *Journal of Competitiveness*. http://dx.doi.org/10.7441/joc.2020.03.07

Nunnally, J. C. (1978). An overview of psychological measurement. *Clinical diagnosis of mental disorders: A handbook*, 97-146. https://doi.org/10.1007/978-1-4684-2490-4_4

Nyarku, K. M., & Hinson, R. E. (2017). Corporate social responsibility reporting of banks operating in Ghana. *African Journal of Business Ethics*, *11*(2). https://doi.org/10.15249/11-2-146

Olawale, L. S., Ilo, B. M., & Lawal, F. K. (2017). The effect of firm size on performance of firms in Nigeria. *Aestimatio: The IEB International Journal of Finance*, (15), 68–87. http://dx.doi.org/10.5605/IEB.15.4

Ong, T., & Djajadikerta, H. G. (2020). Corporate governance and sustainability reporting in the Australian resources industry: An empirical analysis. *Social Responsibility Journal*, *16*(1), 1–14. https://doi.org/10.1108/SRJ-06-2018-0135

Opferkuch, K., Caeiro, S., Salomone, R., & Ramos, T. B. (2021). Circular economy in corporate sustainability reporting: A review of organisational approaches. *Business Strategy and the Environment*, *30*(8), 4015–4036. https://doi.org/10.1002/bse.2854

Pardo, A., & Román, M. (2013). Reflections on the Baron and Kenny model of statistical mediation. *Anales de psicologia*, *29*(2), 614-623. http://dx.doi.org/10.6018/analesps.29.2.139241

Parfitt, C. (2022). A foundation for ‘ethical capital’: The Sustainability Accounting Standards Board and Integrated Reporting. *Critical Perspectives on Accounting*, 102477. https://doi.org/10.1016/j.cpa.2022.102477

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, *40*(3), 879-891. https://doi.org/10.3758/BRM.40.3.879

Preacher, K. J., & Leonardelli, G. J. (2001). Calculation for the Sobel test. *Retrieved January*, *20*, 2009. https://www.scirp.org/reference/referencespapers?referenceid=973495

Puni, A., & Anlesinya, A. (2020). Corporate governance mechanisms and firm performance in a developing country. *International Journal of Law and Management*. https://doi.org/10.1108/IJLMA-03-2019-0076

Reinartz, W., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of research in Marketing*, *26*(4), 332-344. https://doi.org/10.1016/j.ijresmar.2009.08.001

Rezaee, Z. (2018). Supply chain management and business sustainability synergy: A

University of Education,Winneba http://ir.uew.edu.gh

theoretical and integrated perspective. *Sustainability*, *10*(1), 275. https://doi.org/10.3390/su10010275

Rigdon, E. E. (2012). Rethinking partial least squares path modeling: In praise of simple methods. *Long range planning*, *45*(5-6), 341-358. https://doi.org/10.1016/j.lrp.2012.09.010

Romero, S., Ruiz, S., & Fernandez-Feijoo, B. (2019). Sustainability reporting and stakeholder engagement in spain: Different instruments, different quality. *Business Strategy and the Environment*, *28*(1), 221–232. https://doi.org/10.1002/bse.2251

Saidu, M., Gold, N., & Aifuwa, H. O. (2020). Board diversity and sustainability reporting: Evidence from industrial goods firms. *MUSA, S., GOLD, NO, AIFUWA, HO (2020). Board Diversity and Sustainability Reporting: Evidence from Industrial Goods Firms. Izvestiya Journal of Varna University of Economics*, *64*(4), 377–398. https://doi.org/10.26458/2115

SAIF, N. (2015). *Impact of leadership styles on quality management practices and organization commitment: the mediating role of organization culture and organization citizenship behavior* (Doctoral dissertation, Gomal University, DI Khan, Pakistan). http://prr.hec.gov.pk/jspui/handle/123456789/6669

Scott, A., & Nyaga, G. N. (2019). The effect of firm size, asset ownership, and market prices on regulatory violations. *Journal of Operations Management*, *65*(7), 685–709. https://doi.org/10.1002/joom.1059

Sensoy, A. (2017). Firm size, ownership structure, and systematic liquidity risk: The case of an emerging market. *Journal of Financial Stability*, *31*, 62–80. https://doi.org/10.1016/j.jfs.2017.06.007

Sepasi, S., Braendle, U., & Rahdari, A. H. (2019). Comprehensive sustainability reporting in higher education institutions. *Social Responsibility Journal*, *15*(2), 155–170. https://doi.org /10.1108/SRJ-01-2018-0009

Sethi, S. P., Martell, T. F., & Demir, M. (2017). An evaluation of the quality of corporate social responsibility reports by some of the world's largest financial institutions. *Journal of Business Ethics*, *140*, 787–805. https://doi.org/10.1007/s10551-015-2878-8

Shad, M. K., Lai, F.-W., Fatt, C. L., Klemeš, J. J., & Bokhari, A. (2019). Integrating sustainability reporting into enterprise risk management and its relationship with business performance: A conceptual framework. *Journal of Cleaner Production*, *208*, 415–425. https://doi.org/10.1016/j.jclepro.2018.10.120

Shahzad, A. M., Rutherford, M. A., & Sharfman, M. P. (2016). Stakeholder-centric governance and corporate social performance: A cross-national study. *Corporate Social Responsibility and Environmental Management*, *23*(2), 100–112. https://doi.org/10.1002/csr.1368

Shields, J., & Shelleman, J. (2020). SME sustainability dashboards: An aid to manage and report performance. *Journal of Small Business Strategy*, *30*(2), 106–114.

University of Education,Winneba http://ir.uew.edu.gh

Sindhu, M. I., Hashmi, S. H., & Ul Haq, E. (2016). Impact of ownership structure on dividend payout in Pakistani non-financial sector. *Cogent Business & Management*, *3*(1), 1272815. https://doi.org/10.1080/23311975.2016.1272815

Spence, M. (1978). Job market signaling. In *Uncertainty in economics* (pp. 281–306). Elsevier. https://doi.org/10.1016/B978-0-12-214850-7.50025-5

Stone, M. (1974). Cross-validation and multinomial prediction. *Biometrika*, *61*(3), 509-515. https://doi.org/10.2307/2334733

Sugiyanto, E., Trisnawati, R., & Kusumawati, E. (2021). Corporate Social Responsibility and Firm Value with Profifitability, Firm Size, Managerial Ownership, and Board of Commissioners as Moderating Variables. *Riset Akuntansi Dan Keuangan Indonesia*, *6*(1), 22–30. https://doi.org/10.23917/reaksi.v6i1.14107

Swandari, F., & Sadikin, A. (2016). The effect of ownership structure, profitability, leverage, and firm size on corporate social responsibility (CSR). *Binus Business Review*, *7*(3), 315–320. https://doi.org/10.21512/bbr.v7i3.1792

Tatoglu, E., Frynas, J. G., Bayraktar, E., Demirbag, M., Sahadev, S., Doh, J., & Koh, S. C. L. (2020). Why do emerging market firms engage in voluntary environmental management practices? A strategic choice perspective. *British Journal of Management*, *31*(1), 80–100. https://doi.org/10.1111/1467-8551.12351

Truant, E., Corazza, L., & Scagnelli, S. D. (2017). Sustainability and risk disclosure: An exploratory study on sustainability reports. *Sustainability*, *9*(4), 636. https://doi.org/10.3390/su9040636

Vesal, M., Siahtiri, V., & O'Cass, A. (2021). Strengthening B2B brands by signalling environmental sustainability and managing customer relationships. *Industrial Marketing Management*, *92*, 321–331. https://doi.org/10.1016/j.indmarman.2020.02.024

Vilchez, V. F., Darnall, N., & Correa, J. A. A. (2017). Stakeholder influences on the design of firms' environmental practices. *Journal of Cleaner Production*, *142*, 3370–3381. http://dx.doi.org/10.1016/j.jclepro.2016.10.129

Vitolla, F., Raimo, N., Rubino, M., & Garzoni, A. (2019). The impact of national culture on integrated reporting quality. A stakeholder theory approach. *Business Strategy and the Environment*, *28*(8), 1558–1571. https://doi.org/10.1002/bse.2332

Wahyudin, A., & Solikhah, B. (2017). Corporate governance implementation rating in Indonesia and its effects on financial performance. *Corporate Governance: The International Journal of Business in Society*. https://doi.org/10.1108/CG-02-2016-0034

Wang, M.-C. (2017). The relationship between firm characteristics and the disclosure of sustainability reporting. *Sustainability*, *9*(4), 624. https://doi.org/10.3390/su9040624

Welbeck, E. E., Owusu, G. M. Y., Bekoe, R. A., & Kusi, J. A. (2017). Determinants of

University of Education,Winneba http://ir.uew.edu.gh

environmental disclosures of listed firms in Ghana. *International Journal of Corporate Social Responsibility*, *2*(1), 1–12. https://doi.org/10.1186/s40991-017-0023-y

Witkowska, J. (2016). Corporate social responsability: Selected theoretical and empirical aspects. *Comparative Economic Research. Central and Eastern Europe*, *19*(1), 27–43. http://dx.doi.org/10.1515/cer-2016-0002

Wu, L., Shao, Z., Yang, C., Ding, T., & Zhang, W. (2020). The impact of CSR and financial distress on financial performance—evidence from Chinese listed companies of the manufacturing industry. *Sustainability*, *12*(17), 6799. https://doi.org/10.3390/su12176799

Wu, S. R., Shao, C., & Chen, J. (2018). Approaches on the screening methods for materiality in sustainability reporting. *Sustainability*, *10*(9), 3233. https://doi.org/10.3390/su10093233

Yang, Y., Orzes, G., Jia, F., & Chen, L. (2021). Does GRI sustainability reporting pay off? An empirical investigation of publicly listed firms in China. *Business & Society*, *60*(7), 1738–1772. https://doi.org/10.1177/0007650319831632

Yasar, B., Martin, T., & Kiessling, T. (2020). An empirical test of signalling theory. *Management Research Review*, *43*(11), 1309–1335. https://doi.org/10.1108/MRR-08-2019-0338

Younis, H., & Sundarakani, B. (2020). The impact of firm size, firm age and environmental management certification on the relationship between green supply chain practices and corporate performance. *Benchmarking: An International Journal*, *27*(1), 319–346. http://dx.doi.org/10.1108/BIJ-11-2018-0363

Zrnić, A., Starčević, D. P., & Crnković, B. (2020). Recent trends in sustainability reporting: Literature review and implications for future research. *Ekonomski Vjesnik*, *33*(1), 271–283. https://hrcak.srce.hr/ojs/index.php/ekonomski-vjesnik/article/view/10707

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APPENDICES

Appendix 1: List of companies used in the study and the dates listed on the GSE

Companies	Date Listed
AngloGold Ashanti Ltd	27/04/2004
Alu works Ltd	29/11/1996
Asante Gold Corporation	29/06/2018
Benso Oil Palm Plantation	16/04/1999
Cocoa Processing Company	14/02/2003
Dannex Ayrton Starwin plc	15/01/2018
Fan Milk Ltd	18/10/1991
Produce Buying Company	17/03/1995
Goil plc	16/11/2007
Tullow Oil	27/07/2011
Unilever Ghana plc	23/07/1991
Sam Wood Ltd	24/04/2002
Total Energies	19/07/1991

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APPENDIX 2: SUSTAINABILITY DISCLOSURE CHECKLIST

Sustainability reporting checklist

No.	Performance indicators	Reporting items	Map to G3
Economic performance (max score is 35)			
1		Direct economic value	EC1
2	Economic	Financial implications, risks and opportunities due to climate change	EC2
3	Performance	Defined benefit plans	EC3
4		Financial assistance from government	EC4
5	Market	Policy and practices on locally-based suppliers	EC6
6	Presence	Procedures for local hiring	EC7
7	Indirect economic impact	Development and impact of infrastructure investments and services provided for public benefit	EC8
Environmental performance (max score is 80)			
8	Materials	Materials used	EN1
9		Materials used that are recycled input materials	EN2
10	Energy	Direct energy consumption	EN3
11		Indirect energy consumption	EN4
12	Water	Total water withdrawal	EN8
13	Biodiversity	Land owned, leased, managed in or adjacent to, protected areas and areas of high biodiversity value	EN11
14		Significant impact of activities on biodiversity in protected areas and areas of high biodiversity value	EN12
15		Direct and indirect greenhouse gas emissions	EN16
16	Emissions	Emissions of ozone-depleting substances	EN19
17	effluents	NO, SO and other significant air emissions	EN20
18	and waste	Water discharge	EN21
19		Waste	EN22
20		Significant spills	EN23
21	Products and	Initiatives to mitigate environmental impact of products and services	EN26
22	Services	Products sold and their packaging materials that are reclaimed	EN27
23	Compliance	Fines and non-monetary sanctions for non-compliance with environmental laws and regulations	EN28
Social performance (max score is 125)			
Labour practices and decent work (max score is 45)			
24	Employment	Workforce by employment type, employment contract and region	LA1
25		Employee turnover	LA2
26	Labour/	Employees covered by collective bargaining agreements	LA4
27	Management relations	Minimum notice period (s) of operational changes	LA5
28	Occupational	Injury, occupational diseases, lost days and absenteeism and work-related fatalities	LA7
29	Health and safety	Education, training, counselling, prevention and risk-control programmes to assist workforce members, their families or community members regarding serious diseases	LA8
30	Training and education	Employees' training	LA10
31	Diversity and	Composition of governance bodies and employees breakdown	LA13
32	Equal opportunity	Basic salary of men to women	LA14
Human rights (max score is 30)			
33	Investment and	Investment agreements with human rights clauses	HR1
34	Procurement practices	Suppliers and contractors that have undergone screening on human rights	HR2
35	Non-discrimination	Incidents of discrimination	HR4

(continued)

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No.	Performance indicators	Reporting items	Map to G3
36	Freedom of association and collective bargaining	Operations in which the right to exercise freedom of association and collective bargaining may be at significant risk	HR5
37	Child labour	Operations as having significant risk for incidents of child labour	HR6
38	Forced and compulsory labour	Operations as having significant risk for incidents of forced or compulsory labour	HR7
Society (max score is 30)			
39	Community	Programmes that assess and manage the impact of operations on communities	S01
40		Business units analysed for corruption	S02
41	Corruption	Employees trained in anti-corruption policies and procedures	S03
42		Actions taken in the incidents of corruption	S04
43	Public policy	Participation in public policy development and lobbying	S05
44	Compliance	Fines and non-monetary sanctions for non-compliance with laws and regulations	S08
Product responsibility (max score is 20)			
45	Customer health and safety	Health and safety impact of products and services is assessed for improvement	PR1
46	Product and service labelling	Type of product and service information required	PR3
47	Marketing communications	Programmes for adherence to laws and standards related to marketing communications	PR6
48	Compliance	Fines for non-compliance with laws and regulations concerning the provision and use of products and services	PR9

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APPENDIX 3: CORPORATE GOVERNANCE CHECKLIST

Corporate governance checklist

No.	Principles	Corporate governance attributes	MCCG (2012) recommendation no.
1	Establish clear roles and responsibilities	Establish clear functions reserved for the board and management	1.1
2		Establish clear roles and responsibilities in discharging board's fiduciary and leadership functions	1.2
3		Formalise ethical standards through a code of conduct	1.3*
4		Firm's strategies promote sustainability	1.4*
5		Procedures to allow directors access to information and advice	1.5
6		Board is supported by a qualified and competent company secretary	
7		Formalise board charter	1.6*
8	Strengthen composition	Establish a nominating committee, which comprises exclusively of non-executive directors (majority independent directors)	2.1
9		Develop, maintain and review the criteria to be used in the recruitment process and annual assessment of directors	2.2
10		Establish formal and transparent remuneration policies and procedures	2.3
11	Reinforce independence	Assessment of independent directors	3.1*
12		Tenure of an independent director does not exceed a cumulative term of nine years (the independent director may continue to serve on the board as a non-independent director)	3.2*
13		Justify and seek shareholders' approval to retain as an independent director, a person who has served for more than nine years	3.3*
14		The positions of chairman and CEO to be held by different individuals and the chairman must be a non-executive director	3.4
15		The board is comprising majority of independent directors	3.5*
16	Foster commitment	Expectations on time commitment for directors and protocols for accepting new directorships	4.1*
17		Directors have access to appropriate continuing education programmes	4.2*
18	Uphold integrity in	Financial statements comply with applicable financial reporting standards	5.1
19	financial reporting	Policies and procedures to assess the suitability and independence of external auditors	5.2
20	Recognise and	Establish a framework to manage risks	6.1
21	manage risks	Establish an internal audit function, which reports directly to the Audit Committee	6.2
22	Ensure timely and	Ensure the company has appropriate corporate disclosure policies and procedures	7.1*
23	high-quality disclosure	Encourage the company to leverage on information technology for effective dissemination of information	7.2*
24	Strengthen relationship between company	Encourage shareholder participation at general meetings	8.1
25	and shareholders	Encourage poll voting	8.2*
26		Promote effective communication and proactive engagement with shareholders	8.3

Note: *Items introduced in MCCG (2012)

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APPENDIX 4: ANNUAL SUSTAINABILITY SCORE FOR LISTED COMPANIES FROM 2017 TO 2022

Company	YEAR	ECP	ENP	LBP	HUR	SOC	PDR
Anglo Gold Ashante	2017	3.7143	2.4286	3.5714	2.4000	3.4000	3.0000
	2018	2.8571	4.0000	3.4286	2.0000	2.0000	3.5000
	2019	2.8571	3.5714	2.7143	3.0000	2.8000	3.7500
	2020	3.0000	3.5714	2.8571	2.4000	3.0000	3.5000
	2021	4.2857	4.0000	2.5714	3.0000	2.8000	3.7500
	2022	2.7143	4.0000	2.8571	2.8000	2.8000	2.5000
Alu works Ltd	2017	3.4286	4.0000	2.7143	3.0000	3.4000	2.7500
	2018	3.2857	3.5714	3.5714	3.0000	2.8000	2.7500
	2019	3.2857	3.4286	2.7143	3.0000	3.4000	3.2500
	2020	3.0000	3.7143	2.7143	3.4000	3.0000	2.5000
	2021	4.4286	2.7143	2.8571	3.0000	3.4000	2.7500
	2022	3.0000	3.8571	3.0000	2.2000	2.2000	3.2500
Asante Gold	2017	3.1429	3.7143	3.2857	3.0000	2.6000	3.5000
	2018	3.1429	3.5714	2.8571	2.6000	2.4000	2.0000
	2019	2.5714	3.2857	3.1429	3.0000	2.6000	3.7500
	2020	3.1429	3.5714	2.7143	3.0000	3.2000	3.5000

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	2021	4.2857	4.0000	2.5714	3.0000	3.2000	3.0000
	2022	2.7143	3.5714	3.1429	3.4000	3.2000	2.2500
Benso Oil Plantation	2017	2.8571	3.1429	2.5714	3.2000	3.0000	2.7500
	2018	3.7143	2.5714	2.8571	3.0000	3.0000	2.7500
	2019	3.2857	2.8571	2.5714	2.6000	3.2000	2.5000
	2019	3.8571	3.2857	3.4286	2.0000	3.4000	2.7500
	2021	4.5714	3.4286	2.4286	3.2000	2.8000	3.2500
	2022	2.8571	3.8571	2.4286	3.0000	2.0000	2.5000
Cocoa Processing company	2017	3.4286	3.2857	2.5714	3.2000	3.4000	2.2500
	2018	2.7143	4.0000	3.0000	2.6000	2.8000	2.0000
	2019	3.1429	4.0000	2.1429	2.4000	2.4000	2.5000
	2020	2.7143	4.2857	3.0000	3.2000	3.4000	3.5000
	2021	3.4286	3.7143	3.1429	3.0000	2.8000	3.0000
	2022	4.0000	4.0000	2.5714	2.0000	3.6000	2.5000
Dannex Ayrton Starwin plc	2017	2.7143	3.1429	3.0000	2.8000	3.0000	3.5000
	2018	2.7143	4.0000	3.1429	2.8000	3.2000	2.5000
	2019	3.1429	3.2857	3.0000	3.0000	2.8000	3.5000
	2020	3.0000	3.7143	3.4286	2.6000	2.4000	2.5000
	2021	4.1429	3.5714	2.2857	3.0000	3.0000	3.0000

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		2022	3.0000	4.0000	3.4286	2.4000	3.4000	2.2500
Fan Milk Ltd		2017	2.8571	4.0000	3.2857	3.0000	3.0000	3.5000
		2018	3.0000	3.8571	3.5714	3.0000	3.6000	2.5000
		2019	3.4286	4.1429	3.1429	3.0000	3.4000	3.7500
		2020	2.2857	3.4286	2.5714	2.0000	2.0000	2.5000
		2021	2.5714	3.7143	3.2857	2.8000	3.0000	2.7500
		2022	1.4286	3.0000	3.2857	3.0000	2.8000	2.5000
Produce Buying Company								
		2018	2.7143	3.5714	3.1429	2.2000	3.6000	3.5000
		2019	3.0000	3.0000	3.7143	2.6000	3.0000	2.5000
		2020	3.1429	3.2857	3.2857	3.4000	2.4000	3.5000
		2021	4.0000	3.5714	2.8571	3.0000	3.2000	2.2500
		2022	2.8571	3.7143	3.0000	3.2000	3.6000	2.5000
Goil plc		2017	3.1429	3.2857	3.2857	2.8000	2.6000	2.5000
		2018	3.1429	3.4286	2.4286	3.0000	3.2000	2.7500
		2019	2.8571	2.8571	3.2857	2.8000	3.0000	2.5000
		2020	2.7143	2.4286	3.4286	2.6000	3.2000	3.5000
		2021	4.0000	3.5714	3.1429	3.0000	3.4000	2.7500
		2022	2.8571	3.0000	2.8571	2.0000	3.4000	2.2500

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Tullow Oil		2017	2.4286	3.2857	3.7143	3.0000	3.0000	3.0000
		2018	3.2857	2.7143	2.5714	3.0000	3.0000	2.7500
		2019	2.5714	3.1429	2.8571	3.0000	3.2000	3.5000
		2020	3.8571	2.8571	3.2857	3.2000	2.6000	3.2500
		2021	2.1429	2.7143	2.8571	3.4000	2.4000	2.5000
		2022	1.8571	3.7143	3.4286	3.0000	3.6000	1.5000
Unilever Ghana Ltd		2017	3.0000	2.7143	2.7143	2.4000	3.0000	3.5000
		2018	2.7143	2.8571	3.4286	2.8000	3.2000	2.2500
		2019	2.8571	2.8571	2.7143	3.4000	2.8000	3.2500
		2020	2.8571	3.6667	2.4286	2.8000	3.2000	2.5000
		2021	3.4286	2.0000	2.2857	2.8000	2.8000	2.5000
		2022	3.5714	2.5714	3.1429	2.4000	2.8000	1.5000
Sam Wood Ltd		2017	2.7143	2.4286	2.8333	3.2000	3.0000	2.5000
		2018	2.8571	3.0000	2.8571	3.4000	2.6000	2.7500
		2019	2.7143	2.7143	2.8571	3.2000	2.8000	2.5000
		2020	3.4286	3.0000	3.1429	2.6000	3.2000	2.2500
		2021	3.7143	3.0000	3.2857	3.0000	3.0000	2.2500
		2022	2.8571	3.0000	2.7143	3.4000	3.0000	2.5000
Total Energies		2017	2.4286	3.1429	3.1429	3.0000	3.0000	2.5000

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		2018	3.4286	2.7143	2.2857	3.0000	2.8000	2.5000
		2019	3.0000	3.7143	2.2857	2.8000	2.8000	3.5000
		2020	3.4286	2.8571	2.8571	3.0000	3.6000	3.0000
		2021	3.2857	2.7143	3.1429	2.2000	2.6000	2.5000
		2022	2.4286	3.0000	3.1429	2.8000	3.6000	2.5000

Guinness Ghana		2017	2.4286	3.1429	3.1429	3.0000	3.0000	2.5000
		2018	3.4286	2.7143	2.2857	3.0000	2.8000	2.5000
		2019	3.0000	3.7143	2.2857	2.8000	2.8000	3.5000
		2020	3.4286	2.8571	2.8571	3.0000	3.6000	3.0000
		2021	3.2857	2.7143	3.1429	2.2000	2.6000	2.5000
		2022	2.4286	2.4286	3.0000	3.1429	2.8000	2.5000