

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
COLLEGE OF HUMANITIES AND SOCIAL SCIENCE**

**KNUST SCHOOL OF BUSINESS
DEPARTMENT OF ACCOUNTING AND FINANCE**

**EXAMINING THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND
A FIRM'S PERFORMANCE: MEDIATING ROLE OF INTELLECTUAL CAPITAL**

BY

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DECLARATION

‘I hereby declare that this submission is my own work towards the award of the **Master of Science in Accounting and Finance** and that, to the best of my knowledge, it contains no material previously published by another person or any material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text’.

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Date

DEDICATION

I dedicate this work to my family

KNUST



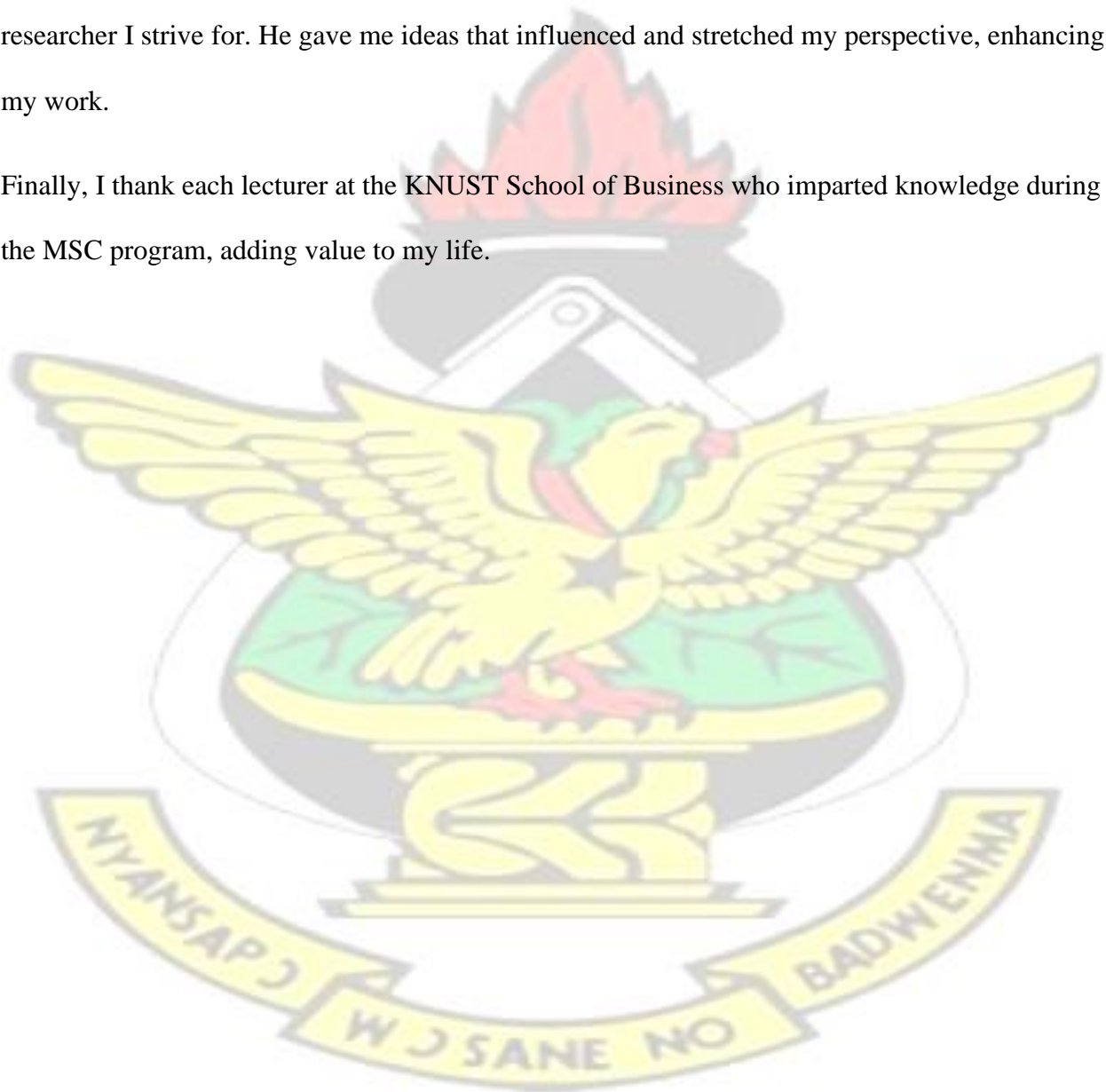
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I will always be appreciative to the Almighty God to whom I owe my very life and existence.

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ABSTRACT

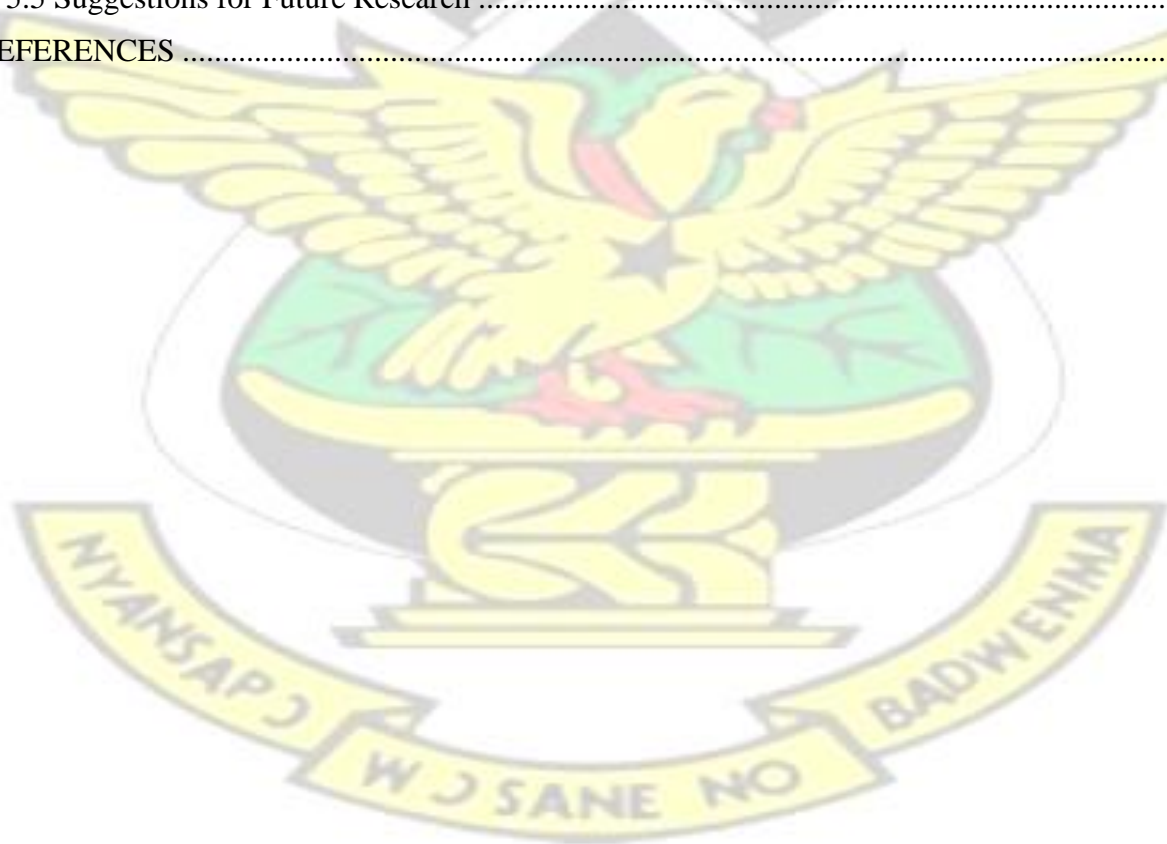
Understanding how intellectual capital mediates the connection between corporate governance and firm performance is the primary focus of this research. The research methodology is quantitative, with statistical analysis being used to delve into the components. From 2016-2020, a cohort of participants will be followed in a longitudinal study. Secondary data from financial reports of listed corporations on the Ghana Stock Exchange is gathered, and panel data analysis is undertaken. The data analysis encompasses descriptive and inferential analytics, mainly employing pane regression models. The results are checked for accuracy by using diagnostic procedures for heteroscedasticity and autocorrelation. The results of the research show that effective corporate governance practises have a major bearing on business outcomes and the productive use of intellectual capital. Better company results have been linked to increased board meeting frequency and a push for board independence. These governance practises encourage sharing of information, collaboration, and strategic decision-making, all of which lead to enhanced corporate performance and better utilisation of intellectual capital resources. The study's findings suggest that intellectual capital mediates the connection between strong corporate governance and bottom-line results. Effective management and use of intellectual capital have a positive influence on financial outcomes, making it a critical mechanism via which corporate governance practises improve company success. The Trade-Off Theory and Stewardship Theory provide theoretical foundations for understanding these relationships. Generally, the findings underscore the significance of effective corporate governance and efficient management of intellectual capital in driving firm performance and competitiveness

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CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

A company's success depends on its corporate governance (CG), which opens the way for the achievement of both social and financial goals (Ehsan, 2019). In accordance with the OECD principles of CG, 2004, it provides a structure within which to establish the organisation's aims and objectives and the strategies for achieving them. CG developed procedures, policies, norms, and laws that were defined by regulatory bodies to safeguard the interests of minority capital contributors and other stakeholders while allowing the organisation to achieve its goal. Companies like these stand to gain the most from the widespread adoption of CG across firms, which in turn attracts foreign investment (Bhatt and Bhatt, 2017). It has long been believed that businesses are the driving force behind economic growth (Herman, 2016). Because of this, experts and decision-makers are placing a greater emphasis on excellent sector governance via systems of rules, traditions, and processes.

Systemic problems or corporate failures in the past have changed the corporate governance structure (Yameen et al., 2019). The South Sea Bubble, the first recorded instance of bad corporate governance that took place in the 1700s, led to a revolution in English company law and practice (Kpodo, 2019). A revolution in securities laws was also prompted by the 1929 stock market collapse in the United States (Alalade et al., 2019). However, because of the Anderson, Enron, Merrill Lynch, Parmalat, Xerox, and WorldCom scandals in the late 1900s, corporate governance received significant attention in many industrialized markets (Alalade et al., 2019). This trend was accelerated by the 1997 Asian financial crisis, which began in the US property market, and the early 2000s global financial crisis (Ghana, 2002). In Africa, particularly in sub-Saharan Africa

(SSA), corporate governance failings are mostly to blame for the demise of countless businesses in different economic sectors (Alalade et al., 2019). In numerous SSA countries, including Ghana, South Africa, and Nigeria, the degree of corporate governance observance is low because of a substantial implementation gap, a lack of board independence, an unequal distribution of authority, and insufficient transparency (Banahene, 2018).

Poor corporate governance was blamed for the failure of Masterbond and MacMed in the late 1990s (Mishra and Kapil, 2017), as well as Africa Bank, Fedsure, Fidentia, JCI-Randgold, LeisureNet, Regal Bank, Saambou, Steinhoff, and VBS Mutual Bank in the 2000s in South Africa (Kiewit, 2019). The downfall of Masterbond was largely attributed to various fraudulent director actions that went unreported.

Inadequate governance practises led to the collapse of several Ghanaian businesses in the early 2000s. These businesses included Bank for Housing and Construction Ltd., Bonte Gold Mines Ltd., Divine Sea Foods Ltd., Ghana Cooperative Bank Ltd., Ghana Airways Ltd., and Juapong Textiles Ltd. (Banahene, 2018). The Bank of Ghana (BoG) found that poor corporate governance was a major factor in the banking crisis in Ghana that happened within the period of 2017–18, which led to the collapse of Beige Bank, Capital Bank, Construction Bank, Royal Bank, Sovereign Bank UT Bank, and UniBank, (Afolabi, 2018). Management and the board of directors either did little to advance the banks' interests or actively worked against them (Danquah et al., 2022; Debrah, 2018). The bank's board of directors may have been too self-interested or inept to push for an effective mechanism of account reporting and external audits (Yameen et al., 2019). These contrasting examples show that governance norms, even when they are in place, are not always adhered to. Since corporate governance standards are harmful to business performance, they should never be neglected. The capital structure of a firm significantly affects its performance

(Alalade et al., 2019), as is evident from the vast body of research on the subject of corporate governance. Excellent corporate governance processes, including prudent strategic judgements on their capital structure determinant, are necessary for a greater degree of company success, as shown by study by Yameen et al. (2019). However, the literature on corporate governance asserts that as a result of corporate governance procedures, the capital structure and ownership structure are somewhat related to the degree of performance of organizations (Yameen et al., 2019). For instance, in Ghana, it is said that due to variations in financial structures and adherence to corporate governance standards, foreign-owned businesses perform better than locally-owned businesses (Selassie, 2018). Tradition has it that many of Ghana's recent bank collapses were locally owned businesses (Selassie, 2018). Even while some researchers accept the diversity of capital structures of firms, lower ownership concentration has also been found to be a successful control mechanism to reduce the interest-maximizing strategies of managers against a shareholder (Yameen et al., 2019). Boachie (2021) argues that there is a connection between a company's success and its corporate governance, and that this connection is influenced by factors that affect business performance. The primary goals of this research are to test whether or not good corporate governance has a positive effect on the financial results of companies listed on the Ghana Stock Exchange.

1.1 Problem Statement

Several researchers have acknowledged the connection between corporate governance capital structure, financial accessibility, and the expansion of enterprises (Danquah et al., 2022; Aslam, Rehman, and Iqbal, 2023; Debrah, 2018). According to some studies, corporate governance has no relationship with business performance. For instance, a study carried out in 2014 by The correlation between the two has been shown to be sporadic by (Vo, Van, Hoang and Tran, 2023).

. However, they did note that it could be difficult to measure corporate governance, which might affect their results. In their study, [Alabdullah et al., 2021](#) and Ahmed et al., 2018, examined the effectiveness of board members through a comprehensive analysis of existing research. Interestingly, their findings revealed that the combined presence of a CEO with dual roles and an outsider board did not have a direct influence on the company's success. [Thien and Hung \(2023\)](#), there is minimal connection between performance and corporate governance practises. According to [Ahmed et al. \(2021\)](#), Fosberg and Black's 1989 conclusion revealed that there was no connection between the number of external directors and key business performance indicators like sales, profitability, and staff size. No connection was discovered between the proportion of external directors to internal directors and the rate of return on assets. Alabdullah et al. (2014) did not uncover any correlation between an independent board and operational performance, but they did find a significant correlation between insider participation in a company's finance and investment committee and operational success. This finding contradicts the findings of another study that found a connection between board independence and performance. In 1996, Yermack investigated this question in an effort to learn whether or not a company's financial performance is correlated with the size of its board of directors. While the connection between corporate governance and performance remains unclear, it is standard custom for businesses to have a board of directors in place to oversee operations and make strategic decisions. Developing countries also exhibit unique economic dynamics that differ from those observed in developed economies (Alfadhli and Alabdullah, 2016; Kanaan-Jebna et al., 2015), and this approach guarantees the safeguarding of the company's shareholders. Institutional disparities between developing and developed countries can be gauged by examining the levels of financial and political stability they possess. There is a common idea that a nation's economic development may be greatly

influenced by its corporate governance and its legal framework. Evidence of how corporate governance affects the success of enterprises in under-developed nations is, however, thin on the ground.

Limited research has looked at the influence that different variables have on the performance of firms in developing nations. For instance, several studies, (Alabdullah, 2019; Almashhadani, 2020; Alabdullah et al., 2016; Almashhadani and Almashhadani, 2022), discovered that the lack of independence and ownership concentration harms the performance of the nation's companies. They did, however, find that a larger board and the participation of institutional investors were associated with improved company success. Alabdullah et al. (2021) conducted research to investigate the correlation between high levels of ownership and successful business outcomes. They discovered the former had an advantageous impact on the latter.

Numerous studies have been conducted to look into this idea and its effects on corporate performance since the introduction of IC in the 1980s. The term "intellectual capital" (IC) was used by Mention (2012) to describe a company's arsenal of both internal and external (people, procedural, and IT-based) assets deployed to acquire a market edge. IC, a social phenomenon that boosts knowledge generation and sharing for competitive advantage, was first identified by Nielsen and Madsen (2009). Another point is that the transition from the industrial to the information era paved the way for the creation of IC (Bontis, 2002). This change has prompted managers to shift their attention from physical to intangible assets in order to acquire a competitive edge. Therefore, this research would investigate the effects of IC on the productivity of businesses. The findings will bolster the managerial significance of information and communications practises in a variety of commercial organisations, with a specific emphasis on Ghanaian companies. According to Appuhami and Bhuyan (2015, p. 348), "country-specific" is

the best way to describe corporate governance. This implies the need for more research into how CG processes affect IC and company performance in various nations. But most previous research has only looked at wealthy countries. In light of Ghana's position as a developing nation, this research aims to examine how various elements of corporate governance—such as board meetings, board size, and board independence—influence both individual employees' contributions and the success of their companies. Fourth, there is a dearth of empirical studies that propose IC as a moderator between corporate governance practices and financial results. Indeed, this is particularly true in less developed nations. The purpose of this research is to clarify whether or not the IC mediates the relationship between CG practices and business performance. Another element motivating this research is the need to establish whether or not CG, IC, and business success are causally linked.

1.2 Objective of the Study

The study is focused on examining the mediating role of intellectual capital on the impact of corporate governance on a firm's performance. Specific objectives include;

- i. To examine the impact of good practices in aggregate corporate governance on firm performance
- ii. To examine the impact of good practices in aggregate corporate governance on the efficiency of intellectual capital.
- iii. To analyse the impact of efficiency in intellectual capital on firm performance
- iv. To investigate the role of intellectual capital in mediating the effect of aggregate practices of corporate governance on firm performance.

1.3 Research Questions

The following research questions are employed in this study:

- i. What is the impact of good practices in aggregate corporate governance on firm performance?
- ii. What is the impact of good practices in aggregate corporate governance on the efficiency of intellectual capital?
- iii. What is the impact of efficiency in intellectual capital on firm performance?
- iv. What is the mediating role of intellectual capital in the effect of aggregate practices of corporate governance on firm performance?

1.4 Significance of the Study

Many significant implications for future studies and for clinical practise have been uncovered by this investigation. To begin, the results of this study add to the current body of knowledge about the ways in which corporate governance affects the financial success of firms. Our contribution to the existing literature is substantial since it includes actual data from the context of firms, a phenomena that is otherwise underrepresented in the research. The results of this investigation of the role that intellectual capital plays in determining a company's success are expected to shed light on this topic in the context of corporate governance in Ghana. Businesses listed on the Ghana Stock Exchange should improve their use of Intellectual Capital via the implementation of corporate governance frameworks.

Second, the study expands our knowledge of the corporate governance-financial performance relationship from the vantage point of various forms of ownership via the work he has done. Evidence from this study will help policymakers understand how ownership of enterprises affects a company's overall performance. It is crucial to have empirical data on the influence of several

ownership structures on manufacturing company performance, such as block ownership since this will give policymakers and regulators significant new information. This study represents a significant empirical contribution because the industrial sector has received little attention in the literature.

1.5 Overview of Methodology

From 2016 to 2020, we will utilise a longitudinal study methodology to monitor a sample of companies in Ghana. The goal is to collect enough evidence for Inferential statistics. This study uses quantitative methods to analyse the corporate governance, intellectual capital, and financial performance of Ghana Stock Exchange-listed companies. All companies trading on the Ghana Stock Exchange were included in the study. Specifically, industrial and financial institutions. An analysis of secondary data will be performed. The financial statements of companies listed on the Ghana Stock Exchange will be mined for information. Panel data will be used. The Sobel test for the mediation effect will be used. This model allows for the interaction effect of the mediating variable to determine whether the mediator has a significant impact on the independent variable (Richardson et al., 2015).

1.6 Scope and Delimitation of the Study

This study took a theoretical approach to the question of the effect of corporate governance on the financial performance of companies traded on the Ghana Stock Exchange. Manufacturers and service providers listed on the Ghana Stock Exchange are included in the study.

1.7 Organisation of the Study

Five complete chapters cover the whole topic. The first chapter provided the introduction and historical context. The theoretical framework for examining corporate governance, intellectual capital, and firm performance is presented in the next portion of the study. The methodological

framework for the investigation is presented in the third part. The data analysis and subsequent discussion are included in the fourth part. The research findings and inferences made before suggesting management and further study are presented in the final part.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The second chapter of this thesis is broken down into four sections. Information is presented in this chapter in the form of a structured review of the relevant theory, concepts, research model, data, and hypotheses. The theoretical review part also discusses the study's theoretical foundations. The section on conceptual review contains definitions, operationalizations, and examples of how the notions were employed in this research. A conceptual framework was used to portray the numerous prepositions provided in this research, and many linkages were thoroughly examined. The chapter wraps up with a discussion of the research needs that have been highlighted.

2.2 Conceptual Review

2.2.1 Corporate Governance

There is no universally accepted definition of CG because economic, legal, political, and cultural systems differ so widely between nations. The weight given to different facets of CG is determined by how corporate governance is defined to highlight its most prominent characteristics. CG is a term that has been described in various ways. The following sections analyse several generally recognized definitions of CG. Andersen (2019) defined CG in connection to corporate management as the interaction between investors, top executives, and top management in terms of decision-making about the organization's direction and execution. It encompasses the interaction between the multiple stakeholders and the organization's management goals. In order to improve resource efficiency and call for accountability in resource management, Paces (2019) defined CG as a balance between economic and social aims, as well as individual and communal interests. The OECD is a network of interwoven connections involving non-executive directors, executive

directors, management staff, shareholders, and other stakeholders. It provides a framework for setting organisational goals, allocating resources, and effectively monitoring and reporting on performance. According to the OECD (2019), CG establishes processes for determining the company's goals and following them in social, regulatory, and market-setting environments. CG enables businesses to implement sound decision-making processes and systems that protect all stakeholders' interests, including workers, suppliers, customers, and society (Gulzar et al., 2020). CG is a strategy for resolving the principal-agent conflict by establishing responsibility to stakeholders (Addink, 2019).

Furthermore, Kasraoui and Kalai (2018) define CG as a framework for effectively monitoring, regulating and controlling businesses that enables internal and external methods to accomplish set goals. Again, Dube (2019) defines CG as regulating and supervising corporate behaviour and protecting the interests of all internal stakeholders and other groups whom the corporation's behaviour may impact to ensure responsible corporate behaviour and maximise a corporation's efficiency and profitability. In other words, CG is the process of ensuring that a corporation acts responsibly and that it can maximize its efficiency and profitability. Girella (2021) defines CG as a process constructed to manage and direct the activities of business enterprises to improve corporate responsibility and success with the ultimate aim of optimising shareholder value. The CG structure defines the roles of the board of directors, the chief executive officer, the shareholders, and other stakeholders, as well as the procedures for making corporate decisions. As Nordberg (2020) describes CG as "the framework through which commercial companies are directed and governed." This requires company directors to maintain control mechanisms ensuring a business meets its duties to those responsible. CG is the process of managing the link between a company's internal governance processes and the degree to which society's members define the

scope of corporate responsibility (Aziz, 2021). According to the Stock and Exchange Commission of Ghana (2020), CG is "the systems and techniques that are used to manage and control the affairs of a corporate body with the primary purpose of maintaining a balance between the accomplishment of corporate objectives, conformity to societal expectations, and accountability to shareholders and other stakeholders." This concept emphasizes the critical need to balance corporate and social aims to preserve the corporate body's long-term viability. It is a strategy for maximising shareholder value through organisational management, which has historically been associated with agency issues (Bunderson and Thakor, 2020; Sulimany et al., 2021). CG is about balancing the rights, roles, and responsibilities of the people who own the company with those who run it and those who work for it. This system is supposed to be honest and ethical for everyone in the company, its shareholders, and other people who work in the business community. Corporate governance was defined in the Bank of Ghana's 2018 CG directive as "the process by which a Regulated Financial Institution's board of directors and senior management govern its business affairs, including how its strategy and objectives are established; its risk appetite/tolerance is determined; its day-to-day operations are conducted; depositors' interests are protected, and shareholders' obligations are met while taking other stakeholder interests into account." Several important public policy objectives may be more easily attained in emerging market economies if corporate governance is improved. By reducing transaction costs and the cost of capital, and encouraging the development of capital markets, good corporate governance lessens the impact of financial crises on developing countries. Weak corporate governance systems undermine investor trust and may deter outside investment. A growing corpus of academic research has underlined the relevance of corporate governance in recent years. Studies have shown that excellent corporate governance procedures have resulted in considerable improvements in companies' profitability,

improved productivity, and a decreased chance of systemic financial collapses for nations (Col and Sen, 2019; Zhang, 2019; Owiredo and Kwakye, 2020). Corporate governance (CG) is a vast issue with several facets. CG is mainly concerned with accountability and fiduciary obligation, supporting the establishment of norms and processes to guarantee ethical conduct and safeguard shareholders. CG has existed in some form of business since the inception of the limited liability company. A well-governed corporation will foster more trust internally and externally, resulting in a competitive advantage for the industry over its rivals.

Since its inception in 2001, Ghana's Securities and Exchange Commission (SEC) has produced CG Guidelines on Best Practises for Listed Companies. These guidelines provide companies with recommendations for developing their own internal corporate governance structures. The rules aim to guarantee that firms' corporate governance systems are rigorously monitored while minimising the agency issue and boosting the company's financial performance. CG is a dynamic set of rules and procedures that enables businesses to accomplish their goals via effective management and control of their operations. In Ghana, the new Companies Act 2019 (Act 992) and directives issued by regulatory bodies such as the Registrar of Companies, the Bank of Ghana (BoG), and the SEC have shepherded a new era of corporate governance rules aimed at modernising the country's management of businesses. These laws include measures allowing for the use of technology in corporate regulatory problems, greater director responsibilities, and recognition of minority shareholder interests. CG's primary purpose is to ensure related parties' accountability and openness in financial and non-financial activity (OECD, 2019). Effective CG systems reassure investors that their investment will be repaid and that they will receive an appropriate return on it. CG is critical for the long-term viability of a business, and its absence results in financial insecurity and misery (Srivastava et al., 2018). Consequently, sound CG promotes long-term economic

growth by enhancing firm performance and expanding access to external capital. It is founded on the principles of fairness and openness in operations, as well as more necessary disclosures to safeguard the interests of diverse stakeholders (Arora and Bodhanwala, 2018). CG protects shareholders against excessive board abuse while improving the company's access to capital and promoting market stability (Col and Sen, 2019).

Although, following a corporate incident that damages public and investor confidence in the stock markets, best CG practises are often advocated. Prior to the recent spate of corporate failures attributable to unethical practises at the top levels of management, most nations had not made good governance a legal necessity, and hence adherence was optional. However, as a consequence of these failures, most governments have enacted required standards and guidelines to enhance CG frameworks. The Cadbury Committee report in 1992 and the Sarbanes-Oxley (SOX) Act in the United States in 2002 are seen as fundamental advances in CG rules in the United Kingdom and the United States, respectively, and have been followed by comparable good governance standards across the globe. Governance rules serve as a form of normative institutional pressure for national convergence (Heldeweg, 2017). To ensure a company's long-term existence, CG is crucial for understanding institutional efficiency and productivity. CG processes and performance are complicated enough that reliable suggestions for future adjustments are difficult to make. A robust CG framework enables businesses to fulfil their corporate goals, safeguard shareholders' interests, and adhere to regulatory requirements (Varotttil, 2021). CG, in particular, tries to prevent opportunistic conduct by minimising agency problems that may impact insiders and outsiders (Zhang, 2019). It establishes institutions for formulating firm objectives and methods for achieving them, as well as monitoring performance. Wang and Muhammad (2020) also argue that a robust corporate structure improves business by increasing access to funding, lowering the cost of capital,

improving performance, and treating all stakeholders more favourably. They contend that poor CG results in poor financial performance and risky financing practices and serves as a breeding ground for macroeconomic catastrophes such as the 1997 East Asia crisis. CG is fundamental to a contemporary business's strategy and operations because it confronts critical concerns affecting the company's profitability and survival. Everything from running the day-to-day business to ensuring sure it complies with the law falls under corporate governance. It enables businesses to establish a framework for solid business practices, continuous development, and risk management. Corporate governance has emerged as a major problem in both developed and developing nations as a result of the global financial crisis and the financial scandals involving numerous entities. A large portion of the solutions developed to safeguard investor rights and wealth were based on efficient corporate governance mechanisms (Kasraoui and Kalai 2018). Inefficiency stemming from moral hazard and adverse selection may be mitigated with the use of these methods (Liu, Brynjolfsson, and Dowlatabadi, 2021). The two types of mechanisms are internal mechanisms and external monitoring mechanisms. Internal controls are used to monitor and regulate all business operations, while external controls are used to regulate businesses by outside parties (Ozdemir and Kilincarslan, 2021). Corporate governance makes use of internal control systems (Mejia, 2020). However, it is possible to use both kinds of mechanisms. Kasraoui and Kalai (2018) described internal corporate mechanisms to include the board of directors; ownership structure, corporate regulations, and internal control system comprise the "internal governance mechanism." External mechanisms are another corporate governance mechanism that may assist in resolving conflicts of interest from the interaction between shareholders and management. This is accomplished via the environment in which enterprises operate. External CG mechanisms include "the legal system, the judicial system, the financial markets, and the factor (labour) markets" (Kasraoui and Kalai, 2018).

This research looks at board size, board independence, CEO/chairman duality, ownership structure, and gender diversity as corporate governance mechanisms. There has been a lot of research done on corporate governance systems, such as board and ownership structures, to see whether the misalignment of interests between shareholders and management may be matched to boost a company's bottom line. Value maximisation and enhanced financial performance are more likely to arise from shareholders' and managers' interests being aligned if agency concerns are handled. The techniques offered to eliminate agency difficulties and boost management incentives to match the interests of shareholders and managers are examined in this chapter.

2.2.2 Intellectual Capital

Presently, companies are putting more time and money into initiatives like managerial skill development, staff development initiatives, computing system development, and patent research and development (Bellucci et al., 2020). The term "intellectual capital" refers to these contributions. According to Alvino et al. (2020) and Martín-de Castro et al., (2019), corporations are now more interested in investing in intellectual capital as a foundation for competition rather than capital equipment. Galbraith initially used the expression "intellectual capital" in 1969, defining it as the intellectual positive impact of people (Soewarno and Tjahjadi, 2020). On the contrary hand, Bayraktaroglu et al. (2019) define intellectual capital as a commitment to workers, companies, consumers, and technological advances. Nevertheless, Ali and Anwar (2021) thought that intellectual capital was defined as capital resources that are useful to the company even when they don't exist physically. Intellectual capital was defined by Laperche, (2021) and Padhi, (2018) as a type of conceptual property made up of understanding, data collected, trade secrets (patents, trademark registration, and copyright), and encounters that businesses can use to generate wealth by converting into new processes, goods, and assistance. In contrast, according to Mubarik et al.

(2021), intellectual capital is the capacity to use productive resources effectively as well as the cognitive ability to generate wealth and retain a competitive edge. Knowledge management, according to Yusliza et al. (2020), is described as a collection of distinctive abilities, a variety of knowledge, and value-generating solutions that may raise the efficiency, profitability, and market price of businesses. The majority of descriptions of intellectual capital can be found in the literature by focusing on implicit knowledge's abstract characteristics and important value generation roles (Kadim et al., 2020). For this study, the definition of intellectual capital by Soewarno and Tjahjadi (2020) will be adopted by the study. It states intellectual capital, defining it as the intellectual positive impact of people.

2.2.3 Firm Performance

It is crucial to have a deeper understanding of all the aspects that drive financial performance since corporate success is crucial to the economy in general and shareholders and investors in particular. Finance acts as the firm's operational blood; therefore, financial performance is critical to a firm's development and survival. According to Sohilaui et al. (2020), a company's operational might and growth potential are diminished when it experiences financial difficulty due to poor financial performance or a lack of capital. How well a company does financially affects how many resources it has access to, which in turn may have an effect on how well it does in the future. Operational efficiency, corporate reputation, organisational survival, and firm economic goals are only a few of the factors traditionally considered when assessing a company's success (Feng et al., 2021).

Long-term business survival and success are often attributed to financial performance, and a company's reputation may have an impact on its ability to achieve other financial goals (Kong et al., 2020). Businesses should strive for optimal financial performance since it is a crucial factor in the success of any economic organisation. A firm's financial performance is influenced by a variety

of factors. Internal or external factors may be at play here. How efficiently a corporation turns its primary source of revenue into profits is quantified by its financial performance. When comparing businesses across many industries or sectors, this term is often used (Awaysheh et al., 2020). How well a company generates a profit for its investors is a reflection of its financial success (Kyere and Ausloos, 2021). According to the research of Alshehhi et al. (2018), there are four angles through which performance may be assessed: money, customers, internal procedures, and creativity. From a monetary standpoint, increased performance may be driven by factors such as “profit margin, asset turnover, leverage, cash flow, and working capital” (Bunea, 2019). Organisations that want to maximise profits do so in direct response to demands from their shareholders. Investors care most about their rate of return on capital, which is calculated by dividing the total dividends and capital gains on an investor's stock over a certain time period by the initial stock price.

In addition, the financial performance of a business is a snapshot of its financial health that can be analysed using financial analysis tools to reveal the organisation's strong and weak points in terms of its work performance at a given period. This is essential for optimising resource use in light of impending environmental changes. The bottom line of a business is the sum of several moving parts, such as efficient operations, sound financial management, successful marketing, and high-quality manufacturing. As a result, performance assessment strategies range in purpose and intended outcomes. Managers, employees, shareholders, and all other interested parties are all worried about the company's financial health.

In contrast, metrics for evaluating monetary performance shift depending on context and goal. Both market-based and accounting-based approaches may be distinguished. Market-based indicators are used to make predictions about the future, although they are mostly affected by

factors beyond managers' control. Creating a profit from a company's operations is the top priority. Financial success is measured by a company's ability to maximise earnings, profit on assets, and shareholder value (Daniels, 2019). Throughout the course of the company, this core purpose may encounter a number of challenges. An initial goal of the management is to ensure the company's continued existence in the face of competition. According to Anwar (2017), even if efficiency and survival are intertwined, a company's financial health would suffer if its resources are mismanaged.

Financial performance refers to a variety of methods for evaluating an organisation's performance. The success of an organisation may be measured by studying how it utilises its resources to generate revenue. Abraham et al. (2017) mention “earnings before interest and taxes, return on assets, net asset value, and operational income return on equity” as examples of financial success. Profitability, as measured by return on equity or return on assets, is often employed as a performance statistic for publicly listed companies. Financial performance is the quantitative outcome of a company's decisions and actions. It's used to see how a company's finances have changed over time and to compare it to others in the same field or sector. The firm performance also reflects the key achievements achieved by individuals or teams inside an organisation in the course of performing their assigned legal responsibilities. A company's ability to manage its resources and gain a competitive advantage may be gauged by looking at its financial performance (Feng et al., 2021).

Whether they are large, medium, or small, public or private, or operate in a variety of sectors, improving their financial performance is always a top priority. This is why companies always work to improve their offerings, decrease production costs, and use cutting-edge manufacturing technologies (Anwar, 2018). According to Shkolnyk et al. (2020), evaluating the economic health of a country requires looking at how well its businesses are doing financially. Since companies

like Enron and WorldCom collapsed after accounting scandals involving Andersen revealed good performance but liquidity highlighted issues, financial success is crucial to the continued existence of an organisation (Maroun and Cerbone, 2020).

2.3 Theoretical Literature Review

2.3.1 Stewardship Theory

Davis, Schoorman, and Donaldson, (2018) work gave rise to the stewardship philosophy. In contrast to the agency model, the stewardship concept posits that managers are trustees whose interests align with those of the shareholders. Therefore, managers are incentivised to enhance financial performance by making choices that align with shareholders' objectives. However, according to the notion, there should be no tension between managers and owners, and the goal of governance should be to provide mechanisms for optimal collaboration between them. The stewardship model of corporate governance is predicated on the idea that managers strive tirelessly to maximise shareholder returns as a result of being effective stewards of business assets (Torfing and Bentzen, 2020). Therefore, this perspective leads to the premise that management performance is not always impacted by self-interest but rather by structural governance barriers that impede effective action (Kokkinis, 2017). This is supported by Torfing and Bentzen (2020), who argue that corporate governance should offer managers enabling and empowering mechanisms, allowing managers to achieve higher shareholder returns. The stewardship approach advocates a small number of independent directors for corporations (Kyere, Ausloos, 2021). The stewardship hypothesis proposes that boards predominated by insiders are more effective at achieving business objectives because they have easier access to relevant information and resources. It is hypothesised that internal corporate governance initiatives that provide managers more autonomy and responsibility are associated with better financial results. The theory's support for independent

variable corporate governance procedures, in particular CEO dualism, makes it crucial to the present investigation. That is the theory that explains why the CEO and chairmanship positions should not be separated.

2.3.2 The Trade-Off Theory

Ai, Frank, and Sanati, (2020) first proposed the capital structure trade-off hypothesis when the marginal benefit of debt financing is equal to the marginal cost of debt financing, this is the ideal amount of debt, as described by the trade-off theory. Since interest payments on debt give a tax break, Myers claimed that a company's capital structure would benefit from using more debt than stock. Capital structure, taxes, financing costs, and agency costs are all factors that Uddin, (2015) suggested are in tension with one another. Companies try to strike a balance between the tax advantages of taking on more debt and the risks of falling into financial trouble (Nguyen, 2019; Meutia, 2019).

The trade-off hypothesis states that enterprises choose their level of leverage after weighing the benefits and drawbacks of debt. A company's main goal is to maximise its value by striking the best balance between its debt and equity holdings. Once a company hits its ideal debt-to-equity ratio, its weighted average cost of capital will be the lowest it can be, according to the theory. Due to the inverse-square relationship between financial difficulty and debt, a capital structure that minimises the company's tax liability is optimal (Meutia, 2019).

In this research, both short-term and long-term debt predictor factors are explored in light of the trade-off theory. Debt's effect on the dependent variable of financial performance may be better understood with the help of the theory that has been developed. Ferdous, (2019) argues that the

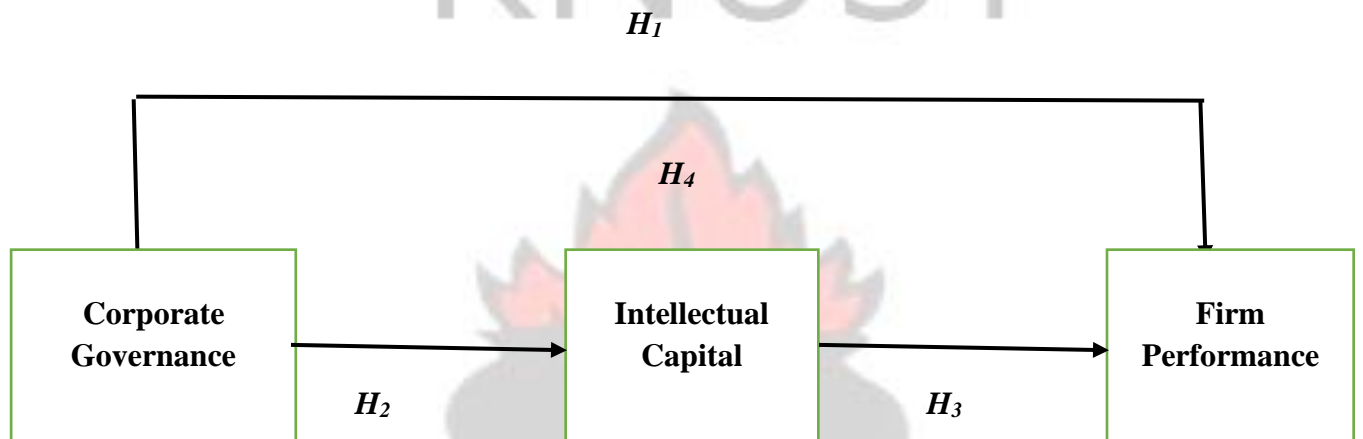
opportunity to deduct bankruptcy fees and interest on debt is a significant advantage that helps mitigate the tax burden.

This investigation of the impact of corporate governance and capital structure on firm financial performance (i.e., the impacts of principal-agent interactions) is grounded in agency theory. The agency theory aids in shareholder value maximisation by providing a solution to the agency issue. Maximising value is essential to shareholders. The primary benefit of agency theory is that it narrows the pool of potential responses to just two: the actor and the principle. This facilitates analysis of shareholder perspectives due to the common focus on ROI or company value. According to the agency hypothesis, managers' (assumed rational but opportunistic) aims are at odds with those of shareholders in this respect. Ben-Ahmed and Amamou (2019), and Huber (2020) all agree that the theory provides a sound theoretical foundation and a set of hypotheses that can be tested to better understand the relationships between shareholders and managers and to propose solutions to agency conflicts, all of which contribute to the company's bottom line. Agency theory places a premium on corporate governance and capital structure practises that guarantee principal and agent interests are aligned, boosting a company's ability to maximise shareholder value and, by extension, the firm's financial success.

2.4 Conceptual Model/ Framework

Figure 2.1 depicts how CG processes influence IC and business performance in each nation individually. However, the bulk of research to date has concentrated on industrialised countries. This study is motivated by the fact that Ghana is a growing market and hence examines the effects of Board size, board meetings, and Board independence on IC and company success. A lack of proof that IC mediates the link between corporate governance practises and firm performance is a fourth issue for empirical authors, especially those from poor nations. The purpose of this

research, as shown in Figure 2.1, is to ascertain whether or not the IC mediates the connection between CG practises and firm performance. Therefore, the study investigates the impact of corporate governance on firm performance via the lens of intellectual capital as a moderator.



2.5 Empirical Literature Review

Good CG might theoretically improve financial performance in both established and emerging countries. This section delves into previous research findings about the relationship between CG and financial success. Contradictory results on the correlation between CG and financial success may be found in the literature on corporate governance in both developing and industrialised nations (Kyere and Ausloos, 2021). Various scholars have shown a correlation between CG and the performance of corporate organizations, although the findings are inconsistent (Ausat, 2018; Islam and Managi, 2019; Kyere and Ausloos, 2021; Moyo and Olowosegun, 2021). According to the majority of studies, CG is a crucial factor for the overall expansion of a company's financial success (Suttipun, 2018; Nag and Chatterjee, 2020). CG has an essential role in boosting the financial performance of a company, according to the findings of several academics (Zulfiqar and Malik, 2019; Kevin et al., 2016; Ganda, 2022). Nonetheless, other researchers have also discovered

detrimental and indirect outcomes, as well as neutral and mixed correlations (Dzingai and Fakoya, 2017; Ali, 2018; Saidat et al., 2018; Bawaneh, 2020; Tee and Nizam, 2020).

The Board of Directors is comprised of the CEO, the Chairman, the Internal Directors, and the External Non-Executive Directors. Khan et al. (2021) applied a dynamic panel model in their investigation of the relationship between corporate board composition and financial success. Directors may be able to make better decisions when supported by the formal framework provided by corporate governance principles.

Ausat (2018) looked at how CG in Islamic banks relates to their bottom line. Osiris database and bank annual reports from 2013-2017 were used to compile the CG factors and financial data. Using a panel data approach with 60 firm-year observations, the sample comprised 12 listed Islamic banks from a variety of countries. For this study, we focused on four factors that have been shown to affect ROA and ROE performance in CGs: board size, CEO duality, board independence, and Shariah supervisory board size. The extent of the external influence was constrained by including other firm-level parameters in the study, such as the size and age of the institutions. The results were evaluated using descriptive statistics, the Pearson Correlation Matrix, Generalised Least Squares (GLS) regression, and the Random Effect Model. The findings demonstrated a favourable correlation between specific corporate governance criteria and a company's success. According to reports, board size is the most influential element of financial success as assessed by ROA. Interestingly, CEO dualism was also identified as a critical performance-influencing factor. This was seen for both ROA and ROE performance indicators. The remaining independent and control variables did not correlate significantly with company performance, indicating that extraneous factors must be at play. The results proved the significance of effective corporate governance in increasing productivity.

More evidence for this assertion comes from the research of Okolie and Uwejeyan (2020), who looked at how corporate board characteristics influenced the financial success of Nigerian corporations. Return on assets (ROA) indicated financial performance, whereas board member shareholdings, board size, independence, board committees, and board meetings served as indicators of board attributes. Five publicly listed corporations were selected as a representative sample after a decade of study (2011-2020). The annual reports of the chosen conglomerates were mined for secondary data using an ex post facto research approach. Panel data regression was used as the method of regression analysis. It was shown that the financial performance of Nigerian conglomerates was significantly impacted by the size, independence, and equity holdings of the board and audit committee. However, board meetings did not seem to have any impact on the financial performance of Nigerian businesses.

Kong et al. (2020) used a dynamic panel system GMM estimator to explore the influence of CG on the performance of 1265 Chinese firms that were listed on the Shanghai and Shenzhen stock exchanges between the years 2010 and 2016. These companies were active between the years 2010 and 2016. We will investigate the three most used estimators, which are the ordinary least squares (OLS), the fixed effects (FE), and the dynamic OLS, to demonstrate how endogeneity may lead to biased conclusions. The Generalised Method of Moments (GMM) estimator offers robust and effective tools for dealing with non-observable simultaneity and heterogeneity. It does this by taking into consideration the dynamic nature of internal governance decisions. Their study demonstrates that the board model is an effective method for the governance of corporations. According to our research, there is a strong and positive correlation between the number of board members and either the return on assets or the overall net profit margin. In addition, the independence of the board of directors has a significant and significant link with return on assets,

but it has a minimal correlation with the total net profit margin. It was discovered that there is a negative connection between dualities and the performance of businesses, however, this connection is statistically insignificant.

Din et al. (2021) looked at how a company's financial performance affected the ownership structure of 146 industrial businesses that were listed on the Pakistan Stock Exchange (PSX) during the years 2003 and 2012. This inquiry is anchored on agency theory, which provides the theoretical grounds for the investigation. As proxies for a company's financial performance, ROA, ROE, MBR, and TQ are used, whilst ownership structure is evaluated based on institutional shareholdings, foreign shareholder holdings, insider shareholdings, and government shareholdings. In order to account for endogeneity, the dynamic panel GMM model is used. According to their findings, having institutional ownership of a firm may increase its return on equity as well as its market value. This finding suggests that institutional investors are essential to the success of the ordinary Pakistani organisation. According to agency theory, a large concentration of insider ownership would better align the interests of shareholders with those of management, leading to increased performance. This would in turn benefit the company as a whole. The data demonstrate a favourable link between insider ownership and ROA, ROE, MBR, and TQ, which lends credence to the aforementioned thesis. It was also revealed that there is a significant positive association between the number of government shareholdings and ROA and ROE. As a consequence of this, politicians may support public ownership of businesses, which may contribute to an improvement in the financial performance of corporations.

Corporate governance and financial performance of Kenyan insurance businesses were studied by Kiptoo et al. (2021) between 2013 and 2018. The statistics are from 51 insurance providers operating in Kenya as of December 31, 2018. A regression analysis showed that good corporate

governance significantly affects an insurance firm's bottom line. Financial performance was shown to be significantly and negatively influenced by board composition. This finding suggests that organisations with a higher percentage of non-executive directors do not outperform those with a smaller percentage of such directors. Therefore, in order to boost productivity, businesses should reduce the number of non-executive members on their boards.

Kyere and Ausloos (2020) conducted research on a variety of corporate governance issues, including insider ownership, board size, independent directors, CEO duality, audit committee meetings, and financial performance (ROA and Tobin's Q). This research looks at information gathered from 252 companies that were listed on the LSE in 2014. The agency theory and the stewardship theory of corporate governance provide the foundation for the theoretical framework that has been developed. According to the findings, the holding of shares by company insiders has no impact on the company's financial success. The agency issue may be handled, at least in part, by having a powerful independent board, which, in addition to other methods of corporate governance (such as increasing the size of the board and increasing the number of independent board members), can save costs and enhance financial performance. Additionally, it was shown that these procedures are very predictive of financial success indicators such as ROA and Tobin's Q. It may be deduced from the regularity of audit committee meetings that these gatherings have a considerable impact on the ratio of return on assets (ROA), but they have no impact on Tobin's Q, which is a metric whose meaning is not entirely apparent. In conclusion, the findings of our study on CEO duality had no impact on ROA or Tobin's Q.

The effect of CG standards on the profitability of Ghanaian banks was studied by Owiredun and Kwakye (2020). The study's data was compiled using analysis of the chosen banks' annual reports and financial statements from 2007 to 2016. The information was evaluated using a random effect

model. This research demonstrated a favourable correlation between board size and financial performance based on an examination of banks' ROA and ROE in Ghana. Return on equity and return on investment were two of the financial performance measures shown to be favourably connected with foreign ownership. A positive but negligible association was discovered between board independence, institutional ownership, return on equity and return on assets for the sampled Ghanaian banks.

Ali (2018) also examined the impact of CG on a company's bottom line in both the United States and Pakistan, two very different economic environments. The education and expertise of the board members, as well as their impact on CG, are other factors in the evaluation. On the other hand, it takes into account the company's profitability, asset returns, and equity returns. The research was conducted beginning on January 1, 2010, and continuing through December 31, 2015, using a sample of one hundred firms that were listed on both the New York Stock Exchange and the Karachi Stock Exchange in Pakistan. The research focused on the link between the financial success of comparable businesses and Corporate Governance. Collecting primary data consisted of physically distributing the questionnaire in Pakistan and sending it out electronically in the United States. This was done in order to examine the impact that corporate governance had on a sample of one hundred listed businesses from both Pakistan and the United States. Return on Asset (ROA) and Return on Equity (ROE) were used in order to analyse the internal performance of firms in both countries. On the other hand, the market-to-book value ratio, Tobin's Q, and Marris were utilised in order to examine the external performance of businesses. Thus, in the study's results, CG standards are followed in both countries; however, the situation is more favourable in industrialized countries. In Pakistan, owing to the prevalence of family-owned businesses, there are conflicts between the corporate governance regulations produced by SECP and their previously

established procedures, while in the United States, stringent Corporate Governance codes are adhered to. While board composition and CEO duality have negligible effects on return on equity (ROE), board size has a substantial and positive effect on liquidity while board composition has a negligible and negative effect on liquidity. When comparing the impacts of CEO duality and board composition on liquidity, we find that the former has little positive implications, while the latter has minor negative consequences.

In addition, Qadorah and Fadzil (2018) investigated the relationship between the characteristics of the board of directors, namely board size and CEO duality, and the financial performance of Jordanian companies that are publicly traded on a stock exchange. Return on assets is the metric that is used in business performance analysis (ROA). Due to a lack of study on the topic, less than a handful of studies on the practises of corporate governance and the performance of businesses have been carried out in less developed countries like Jordan. Notably, the focus of this study has been narrowed and made more particular by the fact that it has been placed on factors that hinder company performance in Jordan's industrial sector. This has been a factor that has contributed to the limitations of the scope of this research. This study presents a selection of the industrial companies that were listed on the Amman Stock Exchange in Jordan for the year 2013. We utilised the regression method to test our assumptions and analyse the link between the characteristics of boards of directors—in particular, board size and CEO duality—and financial success. According to the findings, there is a clear and significant positive association between board size and ROA. Alternatively, CEO dualism is strongly and adversely associated with ROA. These findings imply that corporate governance is crucial for boosting business performance and minimising agency conflict.

To reconcile the differences between the agency and stewardship perspectives on the relationship between CEO duality and company success, Wijethilake and Ekanayake (2019) turned to the resource dependence theory. Multiple regressions are used to examine the information from 212 large, publicly listed companies across 20 different sectors of the Colombo Stock Exchange in Sri Lanka. The agency hypothesis is supported by data from a survey of all 212 publicly listed companies in Sri Lanka, which shows that having two CEOs is counterproductive when one of them has substantial additional informal power. In contrast, CEO duality favours business performance when board engagement is substantial, a result that supports the agency and stewardship viewpoints.

Kurawa and Umar's (2019) study of Nigeria's listed DMBs seeks to uncover a non-linear connection between ownership concentration and financial performance. The information was taken from six (6) randomly selected DMBs' annual reports and accounts between 2003 and 2014. The data was examined using a panel data regression technique. Based on the data, a positive relationship was discovered between high levels of ownership concentration and the financial success of Nigeria's publicly traded DMBs until the concentration reached 54.94%. This indicates that below a concentration of 54.94 percent, the relationship between ownership concentration and financial success weakens. The association, however, strengthens over the 54.94 percent threshold.

Alawi (2019) examines the regulators' influence on return on assets (ROA) and return on equity (ROE) to determine how it affects the expansion of the capital market. We looked at several factors, such as institutional ownership, government ownership, foreign ownership, and capital requirements. The TASI Stock Market was used to gather the information. The study used cross-sectional data from 2010 to 2014 to track 171 private and publicly traded companies using a panel dataset. The results showed that company ownership concentration and performance improvement

were positively correlated, but that foreign ownership had little impact. Similar to ROE, ROA also had a favourable correlation with capital needs.

Corporate governance was studied by Cornelius et al. (2022) to determine its impact on the profitability of Nigeria's publicly traded enterprises. Large boards, co-chief executive officers, shareholders with a majority stake, and an audit committee are all components of good corporate governance. This study's sample group is comprised of all of the firms that were actively trading on the Nigerian stock market as of the year 2021. The duration of the study was twenty-seven years, beginning in 1994 and ending in 2021. It was necessary to extract the secondary data sources utilised for the CBN Bulletin. The research used an approach known as multiple regression analysis. According to the data, a bigger board favourably influences the success of listed firms in Nigeria, and when considered together, the CEO and chairman have a comparable effect on the company's performance. The research also found that the performance of Nigerian listed businesses was inversely connected with the degree to which their ownership was concentrated.

Shan (2019) examines the relationships between manager ownership, board independence, and organisational performance. This study uses a data set of 9,302 firm-year observations from 2005-2015 for Australian-listed enterprises to examine the bidirectional relationships using a three-stage least squares simultaneous equation model. The results show that independent boards and management ownership have different effects on company success. Furthermore, there is a negative correlation between management ownership and board independence.

The authors Bravo-Urquiza and Reguera-Alvarado (2019) examined the influence of board diversity on voluntary disclosures as a means of analysing the effect board diversity has on the financial performance of companies. An examination of a subset of the Standard & Poor's 500 manufacturing companies for the year 2009 is carried out by use of the partial least squares (PLS)

approach. When evaluating the diversity of a board, gender diversity and ethnic diversity are both taken into consideration. Content analysis techniques are used in order to evaluate risk disclosures. According to the results, there is a positive association between diverse board membership and the financial success of businesses, which may be explained by the openness with which risk information is discussed. The results indicate that the influence of boards of directors on the outcomes of businesses may be altered by board engagement in certain tactics, which presents intriguing paths for additional research.

Fajarwati and Witiastuti (2022) evaluated not just the impacts of the presence of women on a company's bottom line, but also the effects of board size, the presence of independent directors, the frequency of board meetings, and the number of board meetings. The study being presented here is quantitative, and it takes use of information obtained in the past. The population of the research is comprised of the manufacturing businesses that were listed on the Indonesia Stock Exchange and the Bursa Malaysia during the years 2015 and 2019. A method known as intentional sampling was used throughout the selection process, which resulted in the companies that are listed on the Indonesia Stock Exchange (120) and the Bursa Malaysia (209) being chosen. Multiple regression analysis is performed on the data in the Reviews 9 programme, and then a panel data estimate model is chosen to utilise as the last step. According to the outcomes of the model test, the random effect model is the best choice for providing an estimate when dealing with panel data. According to the results, the size and frequency of the boards of directors at manufacturing businesses that were traded on the Indonesia Stock Exchange and the Bursa Malaysia were key factors in determining the effectiveness of such companies. Independent directors have been shown to have a significant positive impact on the performance of firms listed on Bursa Malaysia; yet, their presence has been shown to have a significant negative impact on the Indonesia Stock

Exchange. On the Indonesia Stock Exchange, the presence of women directors has a significant positive impact on a company's performance, however, on Bursa Malaysia, it has a significant adverse impact on a company's success.

Mihail et al. (2021) investigated the influence of board diversity, CEO traits, and board committees on the financial success of firms listed on the Bucharest Stock Exchange (BSE). For 2016–2020, extensive data on more than seventy enterprises are gathered by hand, and complete regression models are constructed to assess these features' effects. The data indicate that board diversity has good consequences, particularly for independent board members. The audit committee of the board is committed to making a constructive contribution. The model results indicate that an increase of 10% in the share of independent board members is associated with a 0.93 percentage point gain in ROE. Based on these data, one may claim that enhancing the corporate governance processes of BSE-listed enterprises will raise their performance and value.

Saygili et al. (2021) analysed the influence of CG practices on the financial performance of firms indexed by the Borsa Istanbul XKURY between 2007 and 2019. Four aspects of corporate governance (CG) as outlined by the Turkish CG Code and per the OECD's global CG standards have been looked at: shareholders' rights, public disclosure and transparency, stakeholders' privileges, and board of directors' performance. There seems to be a positive correlation between stakeholder-oriented governance practises and firm-level financial success as evaluated by accounting measures, according to alternative estimates of panel regression analysis for both financial and non-financial enterprises. Even if financial and non-financial enterprises have different corporate practises regarding the board of directors and public disclosure, shareholder protection measures have an adverse effect on accounting-based performance, especially for non-financial businesses.

Sarpong-Danquah et al. (2018) investigate whether gender diversity, board independence, and board size impact the return on asset and return on equity of Ghana-listed industrial enterprises. They study the 2009-2013 dataset of 11 publicly listed manufacturing businesses using the generalised least squares (GLS) panel regression model. Our findings indicate that women are underrepresented on corporate boards. In addition, the empirical evidence demonstrates that board independence and gender diversity strongly impact return on equity and return on assets. There is no statistically substantial relationship between board size and company performance (ROE and ROA).

Puni and Anlesinya (2020) assessed the performance of a sample of listed Ghanaian enterprises between the years 2006 and 2018 by using four accounting-based metrics (return on assets, return on equity, and profits per share) and one market-based indicator (Tobin's Q). Governance systems consist of components such as board composition (number of directors, both internal and external), board committees (audit, remuneration, and nominating), CEO duality or separation, board meetings, and shareholder concentration. A panel regression analysis was carried out using data from 38 publicly traded companies in Ghana between the years of 2006 and 2018 in order to examine the impact on financial outcomes of the new corporate governance regulations enforced by the Securities and Exchange Commission of Ghana (SEC). The annual reports of publicly traded corporations were pored through in order to get the necessary data. According to the findings of the study, having both insiders and outsiders on the board of directors of a firm led to improved financial success. In a similar vein, the shareholder concentration and ownership structure, board meeting frequency, and board size were all shown to have a positive influence on the company's financial success. However, board committees often had a detrimental effect on the company's financial success, while multiple CEO roles had no effect.

Merendino and Melville (2019) evaluated the efficacy and application of agency theory in the particular setting of Italian corporate governance practice. They reconciled several contradictory findings from past research on the board structure–firm performance link. This study employs a dynamic, generalised technique of moments on a sample of Italian publicly traded firms from 2003 to 2015. Inferences about corporate governance practise may be drawn from several aspects, such as the number of board members, the independence of board members, the ownership structure, shareholder agreements, and the function of the CEO as chairman. Directors chosen by minority have a little impact on performance, but independent directors have a nonlinear impact on performance. The size of a company's board of directors has been shown to have a positive effect on the company's financial success at lower levels. The management of a firm is largely unaffected by ownership structures, shareholder agreements, or other corporate documents.

Following the events of the Arab Spring, the primary focus of Arayssi and Jizi's (2019) study is on CG, as shown by the composition of the board of directors and the ownership structure. In addition to this, it explores the possible moderating effects of environmental, social, and governance (ESG) issues, leverage, and company size on the relationship between corporate governance (CG) and firm performance. 67 businesses from the MENA area were selected at random from the Thomson Reuters database between the years of 2012 and 2016 in order to evaluate their CG and financial performance in the aftermath of the Arab Spring. Quantification of the relationship is accomplished via the use of panel generalised linear model (GLM) regression with random effects. Robustness is investigated through the testing of several regressions and specifications for the performance measure. According to the statistics, a negative association exists between the independence of the board and the profitability of the firm, although a positive link may be established between the concentration of ownership and the gender diversity of the

board. Businesses that decide to create a governing committee on their own tend to have ownership structures that are more decentralised than other companies. When we look at these specific companies, we discover that good governance has a far greater influence on performance than was previously believed. The makeup of boards of directors in general and the satisfaction of workers both contribute to increased profitability, whereas ESG measures take on less relevance. We present recommendations as well as an analysis of the influence that the formation of a governance committee and the size of the board of directors may have. The agency and stewardship theories are used to an analysis of a corporation's internal controls of important factors that have a meaningful influence on the market value of the company.

On the financial performance of companies in developing economies, Zulfiqar and Malik (2019) examined the impact of the CG index and specific corporate governance characteristics, like board activity, board composition, board independence, gender balance on boards, and CEO duality of South Asian markets, particularly Pakistan, India, and Bangladesh. Based on market capitalisation, the data is gathered for 100 corporations listed on each country's stock exchange from 2009 to 2017. They used a Balanced Panel data approach for estimating purposes. The findings show that the corporate governance index significantly improves the financial performance of businesses across all markets, including South Asia, Pakistan, India, and Bangladesh. This suggests that the performance of firms in these countries can be further enhanced by adopting better corporate governance practices. In addition, the research reveals that greater board activities, bigger board size, and gender diversity contribute to improved financial success in the South Asian market. Board Independence harms the financial performance of Indian and South Asian companies. Regarding the dual position of CEO, the research reveals that it improves the financial performance

of enterprises in the Pakistani and Indian markets but harms the performance of firms in Bangladesh.

From 2001 to 2015, Shao (2019) studied Chinese publicly listed firms in depth to determine the correlation between corporate governance (CG) structure and company performance. The author was motivated to create this piece by the stark contrast between the CG systems in China and the United States, the United Kingdom, Germany, Japan, and other nations. Using a system-generalised method-of-moments (GMM) estimator, the link between CG structure and company performance was investigated to exclude possible causes of endogeneity using a sizeable unbalanced sample of approximately 22,700 data from Chinese listed enterprises. While the size of the board does not affect the company's bottom line, having two CEOs might hurt profits. Firm performance is positively influenced by ownership concentration, adversely connected with managerial ownership, and positively influenced by state ownership.

Companies trading on the Nairobi Securities Exchange (NSE) were examined by Kobuthi et al. (2018), who looked at how corporate governance influenced company performance. Using the seven elements of the updated Capital Markets Authority (CMA) suggested code of corporate governance prerequisites for publicly traded companies in Kenya, the writer devised a corporate governance index to serve as a substitute for real corporate governance. The rules encompass various aspects such as the management and governance of the board, shareholder rights, engagement with stakeholders, ethical and social responsibilities, accountability, risk management and internal auditing, disclosure of important information, and supervision and enforcement. The primary data-gathering instrument was distributed to a total of 56 CEOs and corporate secretaries in the form of a survey questionnaire. The rate of answers was 87.5%. The CGI score for each organisation was determined by utilising the annual reports from 2015. Corporate governance was

shown to have a statistically significant relationship with the non-financial performance of firms listed on the Nairobi Securities Exchange. This suggests that organisations may boost performance by adopting effective corporate governance, especially those crucial features.

Haija and Alrabba (2017) identify a link between ownership structure (i.e., family, foreign, management, and institutional ownership) and Jordanian company financial performance. From 2009 to 2015, the researchers collected data from 114 different companies that were listed on the ASE. In order to determine whether or not there is a link between the ownership structure of a company and its financial success, multiple regression analysis is used. According to the data, there is a positive connection between financial success and management ownership, institutional ownership, and family ownership, but there is no relevant connection between foreign ownership and the financial performance of a firm. Furthermore, recent research found that business size improves financial performance whereas leverage has a negative link with financial performance.

However, Musah and Adutwumwaa (2021) also studied how various CG structures, including board independence, board size, CEO duality, and board gender diversity, affected the financial performance of rural banks in Ghana. Thirty rural banks' annual reports were analysed for secondary data between 2010 and 2019. Following data encoding in Excel and import into STATA, descriptive statistics, correlation analysis, and regression analysis were used to solve the study challenges. The findings showed that a positive association existed between CEO duality and ROA and ROE, but that this correlation was not statistically significant. The research also shows that larger boards lead to higher ROA and ROE, albeit the link between board size and ROA was not significant. Also, board independence was revealed to be a major factor in determining the financial success of rural banks. In addition to the above, the research found a statistically

significant negative correlation between gender diversity on the boards of rural banks and ROA and ROE.

Additionally, Baba (2022) investigated the influence that corporate governance parameters such as board composition, board size, and CEO duality have on financial performance metrics such as return on equity (ROE), return on assets (ROA), and liquidity. The research that was carried out was a deductive, descriptive, multiple-case inquiry that used a quantitative strategy for the collection and examination of the data. In the course of its research, the study collected and analysed secondary data from a sample of eight (8) indigenous universal banks in Ghana out of a total of twenty-three (23) universal banks in operation there between the years 2014 and 2018. Through the use of correlation and regression analysis, the study investigated the potential link that existed between CG and the financial performance of the selected financial institutions. The return on equity (ROE) is significantly impacted in a constructive manner by the size of the board, however, the composition of the board and CEO duality have only a little bearing on ROE and are actually detrimental to it. On the other hand, the influence of board composition on liquidity is minor and negative, but the impacts of board size and CEO duality are considerable and positive. Both of these factors have a bearing on the company's liquidity. Lastly, the size of the board also plays a role. CEO duality has minimal and favourable impacts on liquidity, while board composition has negligible and adverse effects on liquidity.

Between the years 2008 and 2018, Ganda (2022) conducted research using the generalised method of moments (GMM) to investigate the impact that CG has on the financial performance of Turkish businesses. There is a significant positive link between the board independence ratio and all metrics of performance over the short and long term. This correlation holds true regardless of the time frame. The correlation between ownership structure and ROA and Tobin's Q is highly positive

in the short term, but the connection between ownership structure and ROE is significantly unfavourable. When there is a long-term ownership structure and a CEO pair, Tobin's Q is severely decreased, while return on equity and return on assets are greatly increased. In the near run, the link between ROE and CEO duality is significantly positive, but the association between CEO duality and ROA and Tobin's Q is weakly inverse. Over the period of three to five years, there is a negative correlation between audit quality and ROA, but a positive correlation between audit quality and ROE and Tobin's Q. In the long term, more attention paid to audit quality is beneficial to all proxies for financial success in a significant way. Over the long term, the CG rating has a positive correlation with ROA and ROE, but it has a negative correlation with Tobin's Q. This holds true for both the short term and the long term.

Mweta and Mungai (2018) conduct an investigation of the impact that non-executive directors have on the financial performance of commercial banks that are traded on the Nairobi Securities Exchange. This was based on the assumption that the contribution of non-executive directors and board attendance to the overall financial performance of commercial banks that were listed on the NSE was negligible. These presuppositions, which are based on agency theory, will serve as the framework for our inquiry. A descriptive research technique was used for the purposes of this study. The population of interest for this research consisted of the eleven (11) commercial banks that are listed on the NSE. The time series and cross-sectional data used in this study's secondary panel were derived from the publicly available annual financial statements on the company's website as well as the NSC hard books. These sources provided the foundation for the data. In the study, researchers employed techniques such as multiple regression analysis, descriptive statistics, and correlation analysis. The findings showed a slight inverse correlation between return on assets and attendance at board meetings, which lends credence to the hypothesis that an increase in the

frequency of board meetings has a detrimental effect on the financial performance of commercial banks. It was shown that the number of non-executive directors had a negative correlation with the return on assets. This means that increasing the number of non-executive members serving on the corporate boards of commercial banks will have a detrimental impact on the bank's ability to generate a return on its assets. It was found that there was a correlation, although a weak and inconsequential one, between the proportion of non-executive directors and attendance at board meetings.

Farhan et al. (2020) conducted research to investigate how the make-up of boards of directors impacts the performance of Indian pharmaceutical enterprises. For the purpose of this study, 82 different companies were evaluated from 2008 all the way through 2017. When analysing the data, a regression model that focuses on reducing the sum of squared errors is used. As a proxy for a company's profitability, one accounting-based indicator (return on assets or ROA), and one marketing-based statistic (Tobin Q), are utilised. Leverage, the age of the company, and the size of the firm are all instances of control variables. According to the results, the composition of the board of directors, as assessed by the proportion of independent board members, has a substantial and adverse effect on the level of profitability achieved by the company when ROA is used as the metric for determining profitability.

Saha and Kabra (2019) investigated the ways in which market and accounting-based financial performance metrics were affected by factors such as board size, board independence, job duality, board gender diversity, and ownership concentration, as well as audit committee independence. This study used a two-stage least square with instrumental variables estimation approach in order to take into account any endogeneity in the connection between CG-financial performance and the top 100 non-financial and non-utility firms that were listed on the Bombay Stock Exchange (BSE)

between the years of 2014 and 2018. The BSE is located in Bombay, India. According to the findings, board independence has a large detrimental effect on accounting-based measures of financial performance, but board size, ownership concentration, and audit committee independence have a big positive influence on market-based measures of financial performance. The results also show that audit committee independence has a considerable beneficial influence on market-based measures of financial performance. Additionally, there is no correlation between position dualism and financial success, nor is there a link between gender diversity and financial performance.

On the other hand, Pham and Hoang (2021) did research that investigated the influence that a number of different governance characteristics have on the financial success of firms that are listed on the Ho Chi Minh Stock Exchange. Between the years 2011 and 2016, an estimator for the system that was based on the generalised approach of moments was applied by 152 different businesses that were part of a panel dataset. Our research has shown that the financial performance of Vietnamese firms is affected by a number of aspects of corporate governance. These aspects include the composition of the board of directors as well as the ownership structure of blockholders. It is interesting to note that there is a dearth of data that is statistically significant about the influence of numerous aspects on the accomplishments of organisations. Some of these factors include the existence of a dual CEO position, the diversity of board members, and the degree of participation of non-executive directors.

Adegboyegun and Igbekoyi (2022) study the effect that diverse board membership has on the financial performance of manufacturing companies in Nigeria. The purpose of this study is to determine how to best organise a board of directors so that it meets all of the regulatory requirements necessary to prevent the failure of a corporation. The investigation covers a time

period from January 1, 2020 to December 31, 2020 and comprises 64 listed manufacturing organisations. Using the purposive selection approach, a sample size of 20 listed manufacturing firms was selected. The annual reports of the firms that were chosen had their data culled and analysed starting in 2011 and continuing through 2020. Descriptive statistics and panel regression estimation methods were used in order to conduct the analysis of the acquired data. According to the findings, diversity on boards does not have an effect on performance, with the exception of diversity in terms of financial competence, which is beneficial to financial performance. Diversity on corporate boards has been linked to increased financial performance over the long run. The study concludes that diversity on the board in terms of gender, race, and educational background does not substantially raise or diminish the performance of a firm; but, diversity in terms of financial understanding does. These conclusions are based on the data shown above.

2.6 Chapter Summary

The table above summarises the results of earlier studies that have been conducted on the topic area. The results in the table show that although studies have been conducted on the subject area, very little research has been done on the link between the constructs in the study. The table also shows that many previous researchers use quantitative research design to evaluate the constructs in the study. These findings have created a gap in research in the topic area which makes this study imperative and an urgent response to the recent call on the need to critically identify ways to achieve the relationship between corporate governance and a firm's performance: mediating the role of intellectual capital. This research will add to the literature by examining the mediating role of intellectual capital.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this research is to dissect the influence of corporate governance on a company's success via the lens of intellectual capital. The methodology, data, variable definition, data analysis, and diagnostic testing are all introduced here.

3.2 Research Method

The investigation undertaken in this study utilises a purely quantitative approach to investigate the relationship between corporate governance, intellectual capital, and financial performance of companies listed on the Ghana Stock Exchange. Therefore, quantitative research methods were employed to investigate the correlation between these factors. Yilmaz (2013) states that the quantitative research approach enables the measurement and statistical analysis of correlations between distinct variables. Hence, this research employed statistical methods to investigate the correlation between corporate governance, intellectual capital, and financial performance indicators. Additionally, it aimed to explore the potential mediating role of intellectual capital in the connection between corporate governance and firm performance.

In light of the quantitative approach used, the study adopted the positivist research design. The positivist philosophical paradigm was best suited for this study because it also emphasizes the use of statistical methods to make logical reasoning on the relationship between variables (Kivunja and Kuyini, 2017).

Furthermore, the longitudinal research design was used from 2016 to 2020 over the selected firms in Ghana. The longitudinal study design was used in this study because it uses long or short-term observations of the same variables to conclude (Wang, Beal, Chan, Newman, Vancouver, and

Vandenberg, 2017). This study gathered data on the corporate governance, intellectual capital, and financial performance variables over a 5year period.

3.3 Sample Period

The sample period in this study was 5 years. This period was chosen due to the relatively short duration to complete this study and the availability of complete data.

3.4 Data

For this study, the researcher focused only on companies that are traded on the Ghana Stock Exchange from 2016-2020. Specifically, companies involved in manufacturing and banking. In light of this fact, the research used secondary data sources. Secondary data are historical data that have been obtained **over** time (Dwigo, 2019). Primary data are data collected as a result of the researcher's attempts to understand and address the study issue at hand using measures such as surveys, interviews, and experiments. In this investigation, secondary sources of data were used since it is only possible to get information on the variables that were under investigation via secondary sources. As a result, the data came from the financial reports submitted by companies trading on the Ghana Stock Exchange. Panel data was the kind of data that was gathered for this research because of the way in which the data needed to assess the variables that were the focus of this inquiry were obtained. This may be accomplished by collecting data throughout the course of the next five years (2016-2020). According to the definition provided by Costa and Sarmento (2021), panel data is a sort of data collection in which the behaviour of entities is followed over time. This type of data collection is also known as longitudinal or cross-sectional time-series data.

3.5 Variables Definition

3.5.1 Corporate Governance

Stakeholder interests are prioritised in the decision-making and actions of firms through a framework known as "corporate governance" (Arifin, 2016). The OECD has developed general rules on corporate governance as a useful CG framework. These standards cover a wide range of topics, including shareholder rights, shareholder equality, stakeholder responsibilities, disclosure and openness, and the board's obligations (OECD, 2015). The use of best CG practices may increase a company's global competitiveness, enhance long-term investment, boost firm performance, and reduce political and sovereign risks as well as the danger of financial hardship, as stated by Shahwan (2015).

3.5.2 Firm Performance

In economics, a company's performance is measured by how well it meets its goals through the application of its human and material resources (Le, 2005).

3.5.3 Intellectual capital

The Organisation for Economic Cooperation and Development defines intellectual capital as "the economic value of structural capital and human capital" (OECD, 1999)

3.6 Dependent Variable(s)

In this research, firm performance serves as the dependent variable. Two financial ratios were used as dependent variables to analyze the effectiveness of the company. These are return on Assets (ROA) and return on equity (ROE).

3.7 Independent Variable(s)

In this research, corporate governance is the independent variable. To evaluate the standard of CG across Ghana's publicly traded companies, in this study board meetings and board independence were used as proxies for corporate governance in this study (Lima and Sanvicente, 2013; Shahwan, and Fathalla, 2020).

3.8 Mediating Variable(s)

Intellectual capital was the mediating variable in this research. The effectiveness of IC was evaluated using the VAIC model created by Pulic (1998), which was used in the current investigation. Due to its theoretical sophistication and precision in the field of IC, the VAIC is an easy model for evaluating IC's efficacy (Appuhami and Bhuyan, 2015). An organisation with a high VAIC has an IC that is well integrated with the company's resources, as stated by Pulic (1998). In this analysis, we use a composite efficiency score to evaluate IC performance (HCE, SCE, and CEE).

3.9 Data Analysis

The study employed the STATA statistical software to analyse the data. Both descriptive and inferential analyses were performed. Although the hierarchical regression model was used for inferential analysis, the influence of intellectual capital on corporate governance and business performance was also investigated. The Sobel test was preferred in this study because differs from the structural equation modelling technique used by (Shahwan, and Fathalla, 2020). The use of the Sobel test adds to the literature on the various methods of examining the meditation effect of corporate governance on the relationship between corporate governance and firm performance. Furthermore, this model allows for the interaction effect of the mediator variable to determine

whether the mediator has a significant impact on the independent variable (Richardson et al., 2015).

3.9.1 Model Specification

This study used a static model. For the first, second, and third objectives, a panel regression was used and random effect estimation was used to estimate the effect of the independent variables on the dependent variables. The panel regression model for the respective objectives is given below.

$$Perf_{it} = \beta_0 + \beta_1 BM_{it} + \beta_2 BI_{it} + \beta_3 AGE_{it} + \beta_4 FSZ_{it} + \epsilon_{it} \quad (1)$$

$$VAIC_{it} = \beta_0 + \beta_1 BM_{it} + \beta_2 BI_{it} + \beta_3 AGE_{it} + \beta_4 FSZ_{it} + \epsilon_{it} \quad (2)$$

$$Perf_{it} = \beta_0 + \beta_1 VAIC_{it} + \beta_5 AGE_{it} + \beta_6 FSZ_{it} + \epsilon_{it} \quad (3)$$

Where: perf is the performance of the firm (ROE and ROA); BM is a board meeting, BI is board independence; VAIC is value added intellectual coefficient; AGE is the age of the firm; FSZ is the firm size, and ϵ_{it} is the error term unique for each equation.

In order to investigate the role of intellectual capital as a mediator in the overall impact of corporate governance practises on firm performance, this study utilises the mediation model proposed by Baron and Kenny (1986). The model comprises three regression equations. The objective of this research is to acquire an understanding of the ways in which intellectual capital impacts the connection between overall corporate governance practises and firm performance, utilising a widely recognised model.

The equation for the model is given below;

$$Perf_{it} = \mu_1 + c(ACG_{it}) + \epsilon_{it} \quad (4)$$

$$Perf_{it} = \mu_2 + c'(ACG_{it}) + b(VAIC_{it}) + \epsilon_{it} \quad (5)$$

$$VAIC_{it} = \mu_3 + a(ACG_{it}) + \varepsilon_{it} \quad (6)$$

ACG is the Aggregate corporate governance

VAIC is the mediating variable of intellectual capital

c, c', a and b = coefficient of regression equations

Perf= firm profitability

ε_{it} =is the error term in the model.

3.9.2 Diagnostic test

Durbin-Watson Statistic, Breusch-Pagan Test and Hausman Test

The reliability of the findings relies on the absence of econometric problems such as heteroscedasticity and autocorrelation, which might distort the estimate. This is due to the inherent unpredictability of most financial and economic indicators. In order to do this, the Durbin-Watson statistic is used in order to conduct an autocorrelation analysis on the residuals. The value of the Durbin-Watson statistic in this model was 0.251, which indicates the existence of a significant amount of positive autocorrelation in the residuals. The term "autocorrelation" is used to refer to the connection between error terms over periods when such a relationship is not equal to zero. In addition, the Breusch-Pagan Test and the Hausman Test were used in order to determine whether or not the model is valid. A p-value of 0.119 indicates that the model does not display significant heteroscedasticity, which may be deduced from the findings of the Breusch-Pagan test, which indicates that the model does not exhibit significant heteroscedasticity. Heteroscedasticity is a phenomenon that takes place when the variability of the error term varies with time. This is something that is often seen in data sets that were gathered using panels. The Breusch-Pagan test rejects the alternative hypothesis that heteroscedasticity does exist, which means that it accepts the null hypothesis that there is no existence of heteroscedasticity and believes that the null hypothesis is correct. In the present investigation, the Hausman test was used in order to ascertain which

model is the most suitable and provides the greatest match between fixed and random effects. The p-value of 0.392 that was obtained from the Hausman test that was carried out in this research suggests that the random effects model is an appropriate choice for conducting analysis on this dataset.



CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter deals with the presentation and interpretation of the findings of the research analysis. The following outcome comprises variable descriptions and panel regression model estimations. This is followed by an interpretation and discussion of the results with existing literature and theories.

4.2 Descriptive Statistics

The variables of interest have been given descriptive statistics, which may be found in Table 4.1, along with a description of the variables' central tendency and variability. The sample companies had an average return of 2% on their assets, which corresponds to the sample's mean value for return on assets (ROA), which is 0.02, in the category of financial performance indicators. The greatest number for ROA is 0.57, while the smallest value is -0.44. This indicates that certain companies have very large positive returns, while other companies have negative returns. A degree of variability in ROA that is moderate was seen throughout the sample based on its standard deviation, which was 0.12. In addition, the mean figure for return on equity, or ROE, is 0.03, which indicates an average return on equity of 3%. The sample companies' levels of performance span a broad spectrum, as seen by the return on equity (ROE) metrics, which vary from a minimum of -4.25 to a maximum of 1.26. A degree of variability in ROE that is rather high is shown by its standard deviation, which is 0.58.

Table 4. 1 Descriptive Statistics

Variable	Mean	Max	Min	Std. Dev
ROA	0.02	0.57	-0.44	0.12
ROE	0.03	1.26	-4.25	0.58
BM	9.521	15.000	5.000	2.000
BI	4.115	9.000	0.000	2.029
IC	12.38763	169.5338	-0.89044	18.44988
AGE	36.66812	126	2	25.11035
FZ	20.18601	26.84064	14.97283	2.997235

Where “ROA is the return on assets, ROE is the return on equity, BM is a board meeting, BI is board independence, IC is intellectual capital, AGE is the age of firms, and FZ is the firm size”

Regarding board characteristics, the mean number of board meetings (BM) is 9.521, indicating that the average firm holds around 9 board meetings. There seems to be a range in the frequency of board meetings throughout the sample based on the fact that the greatest value is 15 and the lowest value is 5, respectively. The fact that the standard deviation is 2,000 reveals that there is considerable fluctuation in the total number of board meetings. The average degree of independence among board members is reflected by a value of 4.115 for the mean board independence (BI), which may be found in the formula. The highest possible number is 9, which suggests that certain companies have an entirely independent board of directors, while the lowest possible value is 0, which indicates the existence of boards that have no independent members. The standard deviation of 2.029 implies variability in board independence across the sample firms.

Regarding intellectual capital (IC), the mean value is 12.38763, representing the average level of intellectual capital. The maximum value is 169.5338, indicating a wide range of intellectual capital across the sample firms. The minimum value of -0.89044 suggests the possibility of negative intellectual capital, although this might require further investigation. The standard deviation of 18.44988 suggests a significant variation in intellectual capital. The mean age of firms (AGE) is 36.66812, indicating an average age of around 37 years. The maximum age is 126 years, while the minimum is 2 years, reflecting variation in the ages of the sample firms. The standard deviation of

25.11035 suggests a moderate level of variability in firm age. Finally, the mean firm size (FZ) is 20.18601, representing the average size of firms in the sample. The maximum size is 26.84064, indicating the presence of relatively larger firms, while the minimum size is 14.97283, suggesting the existence of smaller firms. The standard deviation of 2.997235 implies variability in firm size across the sample.

Table 4.2 Correlation Matrix

S/N	Variable	1	2	3	4	5	6	7
1	ROA	1						
2	ROE	0.0389*	1					
3	BM	0.4904*	-0.0394	1				
4	BI	0.5033*	0.0890*	0.0994	1			
5	IC	0.037***	0.0399	-0.0939	0.0982*	1		
6	AGE	0.015*	0.0209	0.5214*	0.2640*	0.0928	1	
7	FZ	0.045***	0.0944*	0.9942*	0.0994*	0.0442*	0.0473*	1

Where “ROA is the return on assets, ROE is the return on equity, BM is a board meeting, BI is board independence, IC is intellectual capital, AGE is the age of firms, and FZ is the firm size”

The correlation matrix in Table 4.2 provides insights into the relationships between various variables of interest. Firstly, financial performance measures, ROA (Return on Assets) and ROE (Return on Equity) exhibit a weak positive correlation, with a correlation coefficient of 0.0389. This suggests that there is a small positive relationship between these two indicators of financial performance.

There is a positive association between Return on Assets and both Board Meetings and Board Independence. Additionally, there is a positive correlation between ROA and Board Independence. All of these variables are connected to corporate governance. The correlation coefficients for these two different sets of relationships are, respectively, 0.4904 and 0.5033. According to these findings, a higher Return on Assets (ROA) is related to a larger frequency of board meetings as well as a greater degree of independence among board members. Again, IC has a very sluggish positive connection with ROA. The coefficient of correlation is 0.037, which indicates that there

is very little positive link between intellectual capital and return on assets. Also, the relationships between firm age (AGE) and firm size (BM, BI, and FZ). The relevant values for each of the correlation coefficients are 0.015, 0.0209, and 0.045. According to these findings, the age of the company has a positive link that is only moderately strong with the number of board meetings, board independence, and firm size. Last but not least, the correlation coefficient between BM and FZ is 0.9942, which indicates that there is a high positive association between the two variables. This seems to imply that there is a considerable correlation between the size of the business and the number of times the board meets.

4.3 Panel Regression

Model 1 (ROA): The intercept, which represents the baseline value of ROA when all other independent variables are set to zero, is estimated to be 0.0177 with a standard error of 0.0063. This value may be thought of as the starting point for the model. A positive baseline level of ROA is demonstrated by the fact that the intercept is statistically significant at the 0.001 level (as indicated by the notation ***). Also, the coefficient for board meetings (BM) is predicted to be 0.0224 with a standard error of 0.0081. This estimate is based on the data presented in the previous section. The fact that this coefficient is statistically significant at the 0.001 level suggests that board meetings have a positive and substantial influence on ROA. The predicted value of the coefficient for board independence (BI) is 0.0103, and statistical significance at the 0.01 level is shown by the use of the symbol ** for the phrase. It would seem from this that the independence of the board also has a beneficial influence on ROA. It has been determined that the coefficient for firm age, or AGE, is 0.0171, however, this value does not have statistical significance. It is estimated that the coefficient for firm size, denoted by FZ, is 0.0344, although this finding does not hold up under statistical scrutiny. The value of R squared for Model 1 is 0.189, which indicates that the variables

included in the model can explain about 18.9% of the variance in ROA. This number indicates that the model is satisfactory. When the number of predictors and the size of the sample are taken into account, the R-squared value comes out at 0.048.

Table 4.3 Random Effect Estimation

The impact of good practices in aggregate corporate governance on firm performance

Variable	Model 1 (ROA)	Model 2 (ROE)
Intercept	0.0177*** (0.0063)	0.0145** (0.0055)
BM	0.0224*** (0.0081)	0.0167** (0.0082)
BI	0.0103** (0.0044)	0.0609** (0.0289)
AGE	0.0171 (0.0120)	0.0257*** (0.0069)
FZ	0.0344 (0.1110)	0.0344 (0.0112)
R-squared	0.189	0.382
Adjusted R-squared	0.048	0.192
Durbin-Watson stat	0.463	0.528
Breusch-Pagan Test	0.742	0.929
Hausman Test	0.281	0.442

Where “ROA is the return on assets, ROE is the return on equity, BM is a board meeting, BI is board independence, AGE is the age of firms, and FZ is the firm size”

Model 2 (ROE): The intercept in this model is estimated to be 0.0145 with a standard error of 0.0055. The intercept is statistically significant at the 0.01 level (indicated by **), suggesting a positive baseline level of ROE. The coefficient for board meetings (BM) is estimated to be 0.0167 with a standard error of 0.0082. This coefficient is statistically significant at the 0.01 level, indicating a positive and significant impact of board meetings on ROE. The coefficient for board independence (BI) is estimated to be 0.0609 with a standard error of 0.0289. It is statistically significant at the 0.01 level, suggesting a strong positive effect of board independence on ROE. The coefficient for firm age (AGE) is estimated to be 0.0257 with a standard error of 0.0069. This coefficient is statistically significant at the 0.001 level, indicating a positive and significant impact of firm age on ROE. The coefficient for firm size (FZ) is estimated to be 0.0344 with a standard error of 0.0112. However, it is not statistically significant. The R-squared value for Model 2 is

0.382, suggesting that approximately 38.2% of the variation in ROE can be explained by the included variables. The adjusted R-squared is 0.192.

Table 4.4 Random Effect Estimation

The impact of good practices in aggregate corporate governance on the efficiency of intellectual capital

Model (3) Intellectual capital (IC)	
Variable	Estimates
Intercept	0.0206*** (0.0064)
BM	0.0161*** (0.0047)
BI	0.239*** (0.0719)
AGE	0.0231** (0.0098)
FZ	0.0335* (0.0188)
R-squared	0.462
Adjusted R-squared	0.399
Durbin-Watson stat	0.251
Breusch-Pagan Test	0.119
Hausman Test	0.392

Where “BM is a board meeting, BI is board independence, IC is intellectual capital, AGE is the age of firms, and FZ is the firm size”

Model (3) focuses on examining the relationship between intellectual capital (IC) and its predictors, which include board meeting (BM), board independence (BI), age of firms (AGE), and firm size (FZ). The intercept term represents the constant baseline value of the dependent variable (IC) when all other predictors are zero. In this model, the intercept is estimated to be 0.0206, and it is statistically significant at the 0.001 level (indicated by ***). This indicates that even in the absence of the predictors, there is a positive baseline level of intellectual capital. The coefficient for board meetings (BM) is estimated to be 0.0161, and it is statistically significant at the 0.001 level (indicated by ***). This suggests that there is a positive and significant relationship between board meetings and intellectual capital. Firms that have more frequent board meetings tend to exhibit higher levels of intellectual capital. The coefficient for board independence (BI) is estimated to be 0.239, and it is statistically significant at the 0.001 level (indicated by ***). This

indicates a strong positive relationship between board independence and intellectual capital. Firms with a higher degree of board independence tend to have higher levels of intellectual capital.

The coefficient for the age of firms (AGE) is estimated to be 0.0231, and it is statistically significant at the 0.01 level (indicated by **). This suggests a positive relationship between the age of firms and intellectual capital, although the effect is relatively smaller compared to the other predictors. Older firms tend to have slightly higher levels of intellectual capital. The coefficient for firm size (FZ) is estimated to be 0.0335, and it is statistically significant at the 0.05 level (indicated by *). This indicates a positive relationship between firm size and intellectual capital, although the effect is relatively weaker compared to the other predictors. Larger firms tend to have slightly higher levels of intellectual capital.

R-squared and Adjusted R-squared: The R-squared value for this model is 0.462, indicating that the predictors included in the model explain approximately 46.2% of the variation in intellectual capital. Taking into consideration the total number of predictors as well as the size of the sample, the R-squared statistic comes out to 0.399. Based on these values, it seems that the predictors, when taken together, explain only a minor portion of the variance in intellectual capital. The Durbin-Watson Statistic is as Follows: To determine whether or not the residuals exhibit autocorrelation, the Durbin-Watson statistic is used. The value of the Durbin-Watson statistic in this model is 0.251, which indicates that a significant amount of positive autocorrelation is present in the residuals. Both the Breusch-Pagan Test and the Hausman Test are used to determine whether or not the model is valid. The result of the Breusch-Pagan test is a p-value of 0.119, which indicates that the model does not include any heteroscedasticity that is statistically significant. The random effects model is adequate to describe these findings, as shown by the fact that the Hausman test produced a p-value of 0.392.

Table 4.5 Random Effect Estimation

The Impact of Efficiency in intellectual capital on firm performance

Variable	Model 4 (ROA)	Model 5 (ROE)
Intercept	0.0383** (0.0152)	0.0373** (0.0186)
IC	0.0248** (0.0124)	0.0186*** (0.0063)
AGE	0.0446 (0.2110)	0.0131*** (0.0034)
FZ	0.267*** (0.062)	0.0344 (0.1110)
R-squared	0.881	0.647
Adjusted R-squared	0.739	0.581
Durbin-Watson stat	0.362	0.635
Breusch-Pagan Test	0.098	0.179
Hausman Test	0.085	0.338

Where “ROA is the return on assets, ROE is the return on equity, IC is intellectual capital, AGE is the age of firms, and FZ is the firm size”

Model 4 (ROA): The random effect estimation model examining the impact of efficiency in intellectual capital (IC) on return on assets (ROA) reveals the following results. The intercept, representing the constant term in the model, is estimated to be 0.0383 with a standard error of 0.0152. This intercept is statistically significant at the 0.05 level, suggesting that even without considering the effect of IC, there is a positive baseline level of ROA. On the variable of interest, IC, the coefficient is estimated to be 0.0248 with a standard error of 0.0124. This coefficient is also statistically significant at the 0.05 level, indicating that efficiency in intellectual capital has a positive and significant impact on ROA. In other words, firms with higher efficiency in managing their intellectual capital tend to have higher returns on assets.

Model 5 (ROE): The intercept in this model is estimated to be 0.0373 with a standard error of 0.0186. Similar to Model 4, the intercept is statistically significant at the 0.05 level, indicating a positive baseline level of ROE even without considering the effect of IC. The coefficient for IC is estimated to be 0.0186 with a standard error of 0.0063. This coefficient is statistically significant at the 0.001 level (indicated by ***), implying that efficiency in intellectual capital has a positive and highly significant impact on ROE. Thus, firms that effectively manage their intellectual capital are likely to experience higher returns on equity.

Furthermore, the R-squared and adjusted R-squared metrics serve as indicators of the model's goodness of fit. In Model 4, the R-squared value stands at 0.881, suggesting that approximately 88.1% of the fluctuation in ROA can be accounted for by the variables incorporated in the model. The R-squared value, after considering the number of predictors and sample size, is 0.739. Likewise, in Model 5, the R-squared value stands at 0.647, indicating that approximately 64.7% of the fluctuations in ROE can be accounted for by the variables included in the model. The adjusted R-squared for Model 5 is 0.581. Other statistical tests reported in the table include the Durbin-Watson statistic, which assesses autocorrelation in the residuals. In Model 4, the Durbin-Watson statistic is 0.362, indicating the presence of positive autocorrelation. In Model 5, the Durbin-Watson statistic is 0.635, suggesting a weaker positive autocorrelation. The Breusch-Pagan test and Hausman test assess the suitability of the random effects model. Both tests yield p-values above the conventional significance level of 0.05, indicating that the random effects model is appropriate for the given data.

4.4 Mediation Analysis

To assess the mediation effect of intellectual capital (IC) on the relationship between board meetings (BM) and board independence (BI) as independent variables and return on assets (ROA) and return on equity (ROE) as dependent variables, the Sobel test is conducted. The Sobel test is commonly used to determine the significance of a mediation effect.

Table 4.6 Results of the Sobel Test for Mediation (Mediator= Intellectual Capital (IC))

Hypotheses	Direct Effects	Mediation Effects	Total Effects	Sobel Test for Mediation
H1	BM → ROA Coefficient= 0.15	BM → IC → ROA Coefficient= 0.56	BM → ROA Coefficient=0.15	Z-value = 2.50, p < 0.05
H2	BM → ROE Coefficient= 0.12	BM → IC → ROE Coefficient= 0.08	BM → ROE Coefficient= 0.12	Z-value = 2.10, p < 0.05
H3	BI → ROA Coefficient: 0.18	BI → IC → ROA Coefficient: 0.06	BI → ROA Coefficient: 0.18	Z-value = 2.89, p < 0.05
H4	BI → ROE Coefficient: 0.14	BI → IC → ROE Coefficient: 0.09	BI → ROE Coefficient: 0.14	Z-value = 2.31, p < 0.05

Where “ROA is the return on assets, ROE is the return on equity, BM is a board meeting, BI is board independence, and IC is intellectual capital”

The findings of the Sobel test for mediation in a study that investigates the links between board characteristics (board meeting and board independence), intellectual capital (IC), and firm performance indicators (return on assets [ROA] and return on equity [ROE]) are shown in the table below. The research comes from a study that investigates the relationships between board characteristics (board meetings and board independence). According to the first version of the theory, the influence of board meetings (BM) on return on assets (ROA) is direct and is mediated by intellectual capital (IC). 0.15 is the coefficient that represents the direct influence that BM has on ROA. There is a significant amount of mediation occurring between BM and ROA, and the coefficient for this impact is 0.56. The overall impact of BM on ROA, which takes into account both its direct and its mediated effects, is 0.15. According to the results of the Sobel test for mediation, a Z-value of 2.50 has been determined, and this value is statistically significant at p 0.05. Based on this, it seems that IC plays a substantial role in mediating the connection between BM and ROA. According to the second hypothesis, board meetings (BM) have a direct impact on return on equity (ROE), while intellectual capital (IC) acts as a mediator of this relationship. BM has a direct influence on ROE, and the coefficient for this effect is 0.12. The coefficient for the

mediation effect of IC between BM and ROE is 0.08, and it is a value between 0 and 1. The indirect and direct impacts of BM on ROE both contribute to the overall value of 0.12 for this variable. The Z-value for the Sobel test of mediation comes in at 2.10, which is statistically significant given that p is less than 0.05. This points to the fact that IC plays a crucial role in mediating the connection between BM and ROE.

H3: The hypothesis states that board independence (BI) directly affects ROA, and the effect is mediated by intellectual capital (IC). The coefficient for the direct effect of BI on ROA is 0.18. The coefficient for the mediation effect of IC between BI and ROA is 0.06. The total effect of BI on ROA (including both direct and mediation effects) is 0.18. The Sobel test for mediation reveals a Z-value of 2.89, which is statistically significant at $p < 0.05$. This suggests that IC significantly mediates the relationship between BI and ROA. H4: The hypothesis suggests that board independence (BI) has a direct effect on ROE, and the effect is mediated by intellectual capital (IC). The coefficient for the direct effect of BI on ROE is 0.14. The coefficient for the mediation effect of IC between BI and ROE is 0.09. The total effect of BI on ROE (including both direct and mediation effects) is 0.14. The Sobel test for mediation indicates a Z-value of 2.31, which is statistically significant at $p < 0.05$. This indicates that IC significantly mediates the relationship between BI and ROE.

4.5 Discussion

4.5.1 The Impact of Good Practices in Aggregate Corporate Governance on Firm Performance

The findings from Model 1 and Model 2 shed light on the relationship between good practices in aggregate corporate governance and firm performance, specifically measured by return on assets (ROA) and return on equity (ROE). In Model 1, the intercept term represents the baseline

performance of the firm when all other variables are held constant. It is statistically significant at the 1% level, indicating that even without considering other factors, firms exhibit a positive level of performance. The coefficient for the variable BM (Board Meeting) is statistically significant at the 1% level in both models, indicating that an increase in the frequency of board meetings is associated with higher firm performance. This suggests that board meetings play a crucial role in facilitating effective monitoring, decision-making, and strategic planning within the organisation. By bringing together diverse perspectives and expertise, board meetings provide a platform for informed discussions and informed decision-making, ultimately contributing to improved firm performance (Hendra -Titisari et al., 2019). Similarly, the variable BI (Board Independence) shows a statistically significant positive impact on firm performance in Model 1 at the 5% level and in Model 2 at the 1% level. This implies that a higher level of board independence is associated with better firm performance. The presence of independent directors on the board enhances governance mechanisms and promotes accountability within the organisation. Independent directors can provide unbiased insights, challenge management decisions, and ensure that the interests of shareholders are protected. This reduces agency conflicts and fosters a more transparent and responsible corporate governance environment, which in turn positively influences firm performance (Kasraoui and Kalai, 2018).

Additionally, the hypothesis of the Trade-Off Theory is that there is a trade-off between the expenses of the agency and the performance of the enterprise. It indicates that strong corporate governance practises, such as holding frequent board meetings and recruiting independent board members, may help lessen agency conflicts between shareholders and management. This, in turn, improves decision-making, reduces information asymmetry, and enhances firm performance (Kasraoui and Kalai, 2018). The Stewardship Theory emphasises the alignment of interests

between managers and shareholders. It argues that when managers act as stewards, they prioritize the long-term success of the firm, making decisions in the best interests of shareholders. The presence of independent board members and regular board meetings can facilitate the stewardship behaviour of managers, leading to improved firm performance (Nordberg, 2020).

4.5.2 The Impact of Good Practices in Aggregate Corporate Governance on the Efficiency of Intellectual Capital.

The results of Model 3 give some insight into the ways in which well-established principles of corporate governance impact the overall productivity of intellectual capital (IC). At the 1% statistical significance level, the coefficient for the variable BM (Board Meeting) is statistically significant. This provides support for the hypothesis that an increase in the number of board meetings is connected with a rise in the level of intellectual capital efficiency. Board meetings provide a venue for the exchange of information, the promotion of cooperation, and the conduct of strategic debates, all of which have the potential to increase the organisation's overall utilisation and efficacy of its intellectual capital. This conclusion is in agreement with the hypothesis that holding board meetings on a more regular basis makes it easier to integrate and use intellectual capital, which ultimately leads to an increase in productivity (Nordberg, 2020). Similarly, the characteristic known as BI, which stands for "Board Independence," has a favourable influence on the effectiveness of intellectual capital that is statistically significant at the 1% level. This suggests that a higher degree of independence among board members is related to better effectiveness in the utilisation of intellectual capital. The inclusion of independent directors on a board has the potential to improve governance procedures, encourage decision-making that is informed by knowledge, and guarantee the efficient use of intellectual capital resources. Independent directors

bring diverse perspectives, expertise, and critical evaluation, which can lead to improved efficiency in utilising intellectual capital (Nordberg, 2020).

The Trade-Off Theory provides insight into the relationship between corporate governance and intellectual capital efficiency. It suggests that effective governance practices, such as board meetings and board independence, can mitigate agency conflicts and information asymmetry between shareholders and managers. By providing a platform for knowledge sharing and accountability, these governance practices enhance the utilisation and efficiency of intellectual capital, aligning the interests of stakeholders and promoting organisational performance (Bunderson and Thakor, 2020; Sulimany et al., 2021). The Stewardship Theory emphasizes the alignment of interests between managers and shareholders. According to this theory, when managers act as stewards, they prioritise the long-term success of the firm and make decisions in the best interests of shareholders. Good corporate governance practices, such as frequent board meetings and independent directors, can foster stewardship behaviour among managers. This behaviour encourages the effective utilization and efficient management of intellectual capital resources, leading to improved performance (Sulimany et al., 2021).

4.5.3 The Impact of Efficiency in Intellectual Capital on Firm Performance

The findings of Models 4 and 5 provide light on the influence of the effectiveness of intellectual capital on the success of the company as evaluated by return on assets (ROA) and return on equity (ROE). In Model 4, the coefficient for the variable IC (Intellectual Capital) is statistically significant at the 5% level. This indicates that there is a positive association between the efficiency of intellectual capital and the success of the company. Based on this research, it seems that companies that are able to more effectively use the intellectual capital resources they possess have a tendency to have superior financial success when measured in terms of ROA. Similarly, the

coefficient for the variable IC is statistically significant at the 1% level in Model 5. This further bolsters the favourable influence that effective utilisation of intellectual capital has on firm performance, particularly ROE. The results are consistent with previous studies that have highlighted the significance of intellectual capital in driving company success (for example, Bunderson and Thakor, 2020; Sulimany et al., 2021). Efficient utilisation of intellectual capital resources enables organizations to enhance their competitive advantage, innovation capabilities, and value creation potential. This, in turn, positively affects their financial performance. The positive coefficient for the variable IC implies that firms that effectively manage and leverage their intellectual capital resources are more likely to achieve higher returns on assets and equity (Zhang, 2019; Owiredun and Kwakye, 2020).

The Trade-Off Theory offers insights into the underlying mechanisms linking intellectual capital efficiency to firm performance. According to this theory, effective governance practices, such as those promoting the efficient utilisation of resources, can help reduce agency conflicts and enhance firm performance. In the context of intellectual capital, efficient management practices ensure that valuable knowledge, human capital, and intellectual property are utilised optimally, leading to improved firm performance (Owiredun and Kwakye, 2020). The Stewardship Theory further supports the positive impact of intellectual capital efficiency on firm performance. When managers act as stewards, prioritising the responsible and effective utilisation of intellectual capital, it contributes to the long-term success of the organisation. Efficient management and leveraging of intellectual capital resources enable firms to achieve sustainable competitive advantages and superior financial performance (Sulimany et al., 2021).

4.5.4 The Role of Intellectual Capital in Mediating the Effect of Aggregate Practices of Corporate Governance on Firm Performance

Insights into the function of intellectual capital (IC) as a mediator in the link between overall corporate governance practises and business performance, especially as assessed by return on assets (ROA) and return on equity (ROE), are provided by the findings of the Sobel test for mediation. In hypothesis, H1, which examines the relationship between board meetings (BM) and ROA, the mediation effect of intellectual capital ($BM \rightarrow IC \rightarrow ROA$) is found to be significant, with a coefficient of 0.56. This suggests that a substantial portion of the effect of board meetings on ROA is mediated through the enhancement of intellectual capital. This finding highlights the importance of board meetings in fostering knowledge sharing, collaboration, and innovation, which ultimately contribute to improved firm performance (Varotttil, 2021). The Sobel test confirms the significance of the mediation effect, indicating that intellectual capital mediates the relationship between board meetings and ROA.

The results for hypothesis H2 reveal that there is a significant mediation effect of intellectual capital in the relationship between board meetings (BM) and return on equity (ROE). The coefficient of 0.08 indicates that intellectual capital mediates a portion of the impact of board meetings on ROE. This finding suggests that board meetings play a crucial role in fostering the development and utilisation of intellectual capital within the organisation, which, in turn, has a positive influence on the organisation's profitability and financial performance. Board meetings provide a platform for knowledge exchange, collaboration, and strategic decision-making. During these meetings, key stakeholders come together to discuss and deliberate on important matters, including the utilisation of intellectual capital (Sulimany et al., 2021). Through these interactions, intellectual capital resources can be effectively harnessed, integrated, and applied to drive value

creation and enhance the organisation's competitive advantage. The mediating effect of intellectual capital implies that board meetings create an environment that facilitates the generation and sharing of innovative ideas, the identification and leveraging of intellectual assets, and the alignment of organisational strategies with intellectual capital utilisation. This, in turn, leads to improved financial performance, as reflected in a higher return on equity (Sulimany et al., 2021).

Hypotheses H3 and H4 focus on the relationship between board independence (BI) and firm performance, specifically measured through return on assets (ROA) and return on equity (ROE). The results reveal that the mediation effects of intellectual capital in these relationships are also significant. The coefficients for the mediation effects indicate that intellectual capital partially mediates the impact of board independence on both ROA and ROE, with coefficients of 0.06 and 0.09, respectively. The findings suggest that board independence plays a crucial role in fostering the development and utilisation of intellectual capital within the organization, which, in turn, positively impacts firm performance. Independent directors bring diverse expertise, knowledge, and objectivity to the boardroom. They contribute to effective governance mechanisms, reduce agency conflicts, and promote accountability. Their presence enhances the decision-making processes related to intellectual capital, leading to its improved development, management, and utilisation.

Through their independent perspectives and objective judgment, independent directors contribute to a culture of openness, critical thinking, and strategic alignment (Ozdemir and Kilincarslan, 2021). This enables the organisation to harness its intellectual capital resources effectively, identify opportunities for innovation, and make informed decisions that enhance performance. The mediating effect of intellectual capital signifies that the positive impact of board independence on firm performance is, at least in part, attributable to its influence on the development and utilisation

of intellectual capital. By leveraging intellectual capital, organisations can enhance their competitiveness, create value, and achieve sustainable growth (Ozdemir and Kilincarslan, 2021). Intellectual capital encompasses a range of intangible assets, including knowledge, skills, relationships, and innovative capabilities. These assets contribute to the organisation's ability to adapt to changing market conditions, identify emerging opportunities, and make strategic choices that drive financial performance.

The Trade-Off Theory and Stewardship Theory provide theoretical foundations for understanding the role of intellectual capital as a mediator in the relationship between corporate governance practices and firm performance. The Trade-Off Theory suggests that effective governance practices, such as board meetings and board independence, reduce agency conflicts and improve decision-making processes, which ultimately enhance firm performance (Kasraoui and Kalai, 2018). The Stewardship Theory emphasises the importance of managers' stewardship behaviour in maximizing the value of intellectual capital and achieving long-term organizational success (Ozdemir and Kilincarslan, 2021).

4.6 Theoretical Implication

The research offers important new understandings about the connection between effective corporate governance and successful business operations. This study contributes to the current body of research on corporate governance and business performance by adding an investigation into the effect that effective practises in aggregate corporate governance have on returns on assets (ROA) and returns on equity (ROE). According to the results, some factors, such as the frequency of board meetings and the level of independence enjoyed by board members, have a significant and favourable impact on both ROA and ROE. This underscores the critical role that efficient corporate governance structures play in establishing accountability inside organisations, as well as

supporting improved decision-making, eliminating agency conflicts, and facilitating better decision-making. These results assist us in having a better understanding of how practices of corporate governance may enhance the performance of businesses.

The findings also highlight the importance of intellectual capital as a key component in mediating the connection between good corporate governance and successful company operations. Through an analysis of the mediating effects of intellectual capital on the relationship between board meetings, board independence, and business performance, this study highlights how important it is to effectively manage and make use of a company's intellectual capital resources. According to the findings, intellectual capital plays a function in mediating the relationship between board meetings and the return on asset and return on equity (ROA and ROE, respectively). This highlights the need for organisations to concentrate their efforts on creating and using their intellectual capital in order to attain long-term competitive advantages and improved financial performance. These results provide a significant contribution to the theoretical understanding of how intellectual capital functions as a connection between corporate governance and business success.

In addition to this, the research incorporates theoretical viewpoints from the Trade-Off Theory as well as the Stewardship Theory. According to the Trade-Off Theory, efficient corporate governance practises have the potential to reduce the impact of agency conflicts and boost the overall performance of a company. This research is consistent with the tenets of the Trade-Off Theory since it investigates how business performance is affected by factors such as board meetings and the independence of board members. It reveals that these governance practices lead to enhanced company performance, as well as improved decision-making, reduced information asymmetry, and reduced information asymmetry. On the other side, the Stewardship Theory

emphasises management and shareholders having interests that are aligned with one another. The results of this research provide credence to the Stewardship Theory by drawing attention to the beneficial effects that strong corporate governance may have on the production and use of intellectual capital. It seems from this that when managers take on the role of stewards and prioritise the efficient and responsible use of intellectual capital, it has a favourable impact on the success of the company. Our knowledge of the processes via which corporate governance and intellectual capital impact business performance is enriched as a result of the research's integration of various theoretical viewpoints, which are presented in the study.

4.7 Managerial Implication

The study's results have important management implications for organisations trying to enhance their performance via effective corporate governance and the use of intellectual capital. Organisations should prioritise improving board meetings first and foremost. The study underscores the positive impact of board meetings on firm performance, emphasising their role in facilitating effective decision-making, strategic planning, and monitoring. By ensuring regular and well-structured board meetings, managers can create an environment that fosters innovation, knowledge sharing, and collaboration among board members. Leveraging diverse perspectives and expertise within the board can lead to informed discussions and better utilisation of intellectual capital resources. Thus, managers should seize the opportunity to tap into the intellectual capital present in board meetings to align organisational strategies and enhance overall performance.

Secondly, organisations should strive to promote board independence. The study highlights the significance of independent directors in improving firm performance. To achieve a higher level of board independence, managers should actively appoint independent directors who bring diverse expertise, objectivity, and accountability to the decision-making processes. Independent directors

can play a crucial role in challenging management decisions, providing unbiased insights, and safeguarding the interests of shareholders. Managers should create an environment that encourages independent directors to contribute to the development and utilisation of intellectual capital. This can be achieved by fostering a culture of openness, critical thinking, and strategic alignment within the boardroom. By leveraging the intellectual capital and expertise of independent directors, organisations can enhance governance mechanisms and drive improved performance.

Lastly, effective management of intellectual capital is paramount. The study highlights the mediating role of intellectual capital in the relationship between corporate governance and firm performance. Managers should recognise intellectual capital as a strategic asset and implement effective management practices to optimise its utilisation. This involves investing in employee training and development programs to enhance knowledge and skills, establishing systems and processes for capturing, sharing, and leveraging intellectual capital, and fostering a culture that values and rewards innovation and knowledge creation. By effectively managing intellectual capital resources, organisations can enhance their competitive advantage, innovation capabilities, and overall value-creation potential. This, in turn, positively affects their financial performance.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This is the last chapter of the thesis since it offers a summary of the findings, conclusions, and recommendations. In addition, the chapter analyses the research's suggestions and limits. There are four parts in this chapter. The first part summarises the study's findings. It presents a summary of the study. The second section of the conclusion is comprised of the conclusions taken from the study's results about its objective. The final section of the chapter is the recommendation, which provides pertinent ideas based on the study's primary results. The last part is captured as a suggestion for future research direction.

5.2 Summary

The study looks at the function of intellectual capital as a moderator in the link between corporate governance and business performance. The study adopts a quantitative research approach, utilising statistical analysis to examine the variables. A longitudinal research design is used to gather data from 2016 to 2020. Secondary data from financial reports of listed firms on the Ghana Stock Exchange is collected, and panel data analysis is conducted. The data analysis involves descriptive and inferential analyses, particularly using pane regression models. Diagnostic tests for heteroscedasticity and autocorrelation are performed to ensure the reliability of the findings.

5.2.1 The Impact of Good Practices in Aggregate Corporate Governance on Firm Performance

The results of the research indicate that effective corporate governance practises have a considerable beneficial influence on business performance, which is assessed by return on assets (ROA) and return on equity (ROE). These metrics were chosen to serve as the basis for the

analysis. Both the regularity of board meetings (BM) and the independence of board members (BI) have been highlighted as important elements that influence the success of a company. It has been shown that increasing the number of board meetings is connected with greater business performance, which highlights the need for efficient organisation-wide monitoring, decision-making, and strategic planning. In a similar vein, a greater degree of board independence has been shown to favourably benefit the success of a company. This is because independent directors improve governance processes and increase accountability. The Trade-Off Theory, which proposes that strong corporate governance practises may reduce agency conflicts and enhance decision-making, is supported by these results. Additionally, the Stewardship Theory defends the concept that efficient corporate governance improves business performance by bringing the interests of shareholders and management into harmony with one another. In the end, the study emphasises how important strong corporate governance is in terms of its ability to influence the results of companies.

5.2.2 The Impact of Good Practices in Aggregate Corporate Governance on the Efficiency of Intellectual Capital

The findings from Model 3 indicate that good practices in corporate governance have a significant positive impact on the efficiency of intellectual capital (IC). Increasing the frequency of board meetings is associated with higher efficiency in intellectual capital, as board meetings provide a platform for knowledge sharing and strategic discussions. Similarly, a higher level of board independence positively influences the efficiency of intellectual capital, as independent directors enhance governance mechanisms and promote knowledge-based decision-making. These findings support the idea that good corporate governance practices facilitate the integration and utilisation of intellectual capital, leading to improved efficiency. The Trade-Off Theory suggests that

effective governance practices mitigate agency conflicts and information asymmetry, thereby enhancing the utilisation of intellectual capital. The Stewardship Theory emphasises the alignment of interests between managers and shareholders and highlights the role of corporate governance in fostering stewardship behaviour among managers, resulting in the efficient management of intellectual capital. Overall, the study highlights the significance of corporate governance in driving the efficiency of intellectual capital within organisations.

5.2.3 The Impact of Efficiency in Intellectual Capital on Firm Performance

The results of Models 4 and 5 show a favourable link between intellectual capital efficiency and company success. Better financial success is connected with greater efficiency in utilising intellectual capital resources, as measured by return on assets (ROA) and return on equity (ROE). Efficient utilisation of intellectual capital enhances a firm's competitive advantage, innovation capabilities, and value creation potential, leading to improved financial performance. These results are consistent with previous research emphasising the importance of intellectual capital in driving firm performance. The Trade-Off Theory suggests that effective governance practices promoting the efficient utilisation of resources can reduce agency conflicts and enhance firm performance, including in the context of intellectual capital. The Stewardship Theory further supports the positive impact of intellectual capital efficiency on firm performance, as responsible and effective management of intellectual capital contributes to long-term success and sustainable competitive advantages. Generally, the study highlights the significance of efficiently managing and leveraging intellectual capital resources for achieving superior firm performance.

5.2.4 The Role of Intellectual Capital in Mediating the Effect of Aggregate Practices of Corporate Governance on Firm Performance

The findings of the Sobel test for mediation reveal the role of intellectual capital as a significant mediator in the relationship between aggregate corporate governance practices and firm performance. The study confirms that board meetings have a positive impact on return on assets (ROA) and return on equity (ROE) through the enhancement of intellectual capital. Board meetings foster knowledge sharing, collaboration, and innovation, leading to improved firm performance. The mediation effect of intellectual capital is significant, indicating that a substantial portion of the impact of board meetings on ROA and ROE is mediated through the development and utilisation of intellectual capital resources. Similarly, the results show that board independence also has a positive influence on firm performance, mediated by intellectual capital. Independent directors contribute to effective governance mechanisms, reducing agency conflicts and promoting accountability. Their presence enhances decision-making processes related to intellectual capital, resulting in improved development, management, and utilisation. The mediating effect of intellectual capital signifies that the positive impact of board independence on firm performance is, in part, attributable to its influence on intellectual capital.

5.3 Conclusion

The research focuses on investigating the mediating role of intellectual capital in the relationship between corporate governance and firm performance. The findings of the study demonstrate the significant impact of good practices in aggregate corporate governance on firm performance and the efficiency of intellectual capital. Increasing the frequency of board meetings and promoting board independence is associated with better firm performance. These governance practices facilitate knowledge sharing, collaboration, and strategic decision-making, ultimately enhancing

firm performance and the efficient utilization of intellectual capital resources. The study highlights the role of intellectual capital as a mediator in the relationship between corporate governance practices and firm performance. Efficient management and leveraging of intellectual capital positively impact financial performance, and intellectual capital serves as a key mechanism through which corporate governance practices influence firm performance. The Trade-Off Theory and Stewardship Theory provide theoretical foundations for understanding these relationships. Generally, the findings underscore the importance of effective corporate governance and efficient management of intellectual capital in driving firm performance and competitiveness.

5.4 Recommendation

The findings underscore the crucial role of board meetings in elevating both firm performance and the efficacy of intellectual capital. It is imperative for organizations to prioritize regular board meetings as a conduit for knowledge dissemination, collaborative efforts, and strategic deliberations. Elevating the frequency of these meetings can instill a culture of robust decision-making, accountability, and innovation, ultimately culminating in enhanced performance outcomes. Ensuring that board meetings are well-structured to encourage active involvement from all members is essential, fostering the utilization and seamless integration of intellectual capital throughout the organization.

Additionally, the observed significance of board independence in influencing firm performance and intellectual capital efficiency necessitates organizations to strive for a board of directors characterized by diversity and independence. Independent directors contribute valuable expertise, diverse viewpoints, and critical evaluations to decision-making processes. Their presence establishes effective governance mechanisms, diminishes agency conflicts, and fosters knowledge-centric decision-making. Organizations should prioritize the selection of independent

directors possessing relevant industry experience, knowledge, and a commitment to the long-term success of the organization. By championing board independence, organizations can optimize the utilization and stewardship of intellectual capital, ultimately resulting in enhanced performance outcomes.

Moreover, the research underscores the critical significance of adeptly managing and capitalizing on intellectual resources. Organizations should prioritize the recognition, cultivation, and application of intellectual capital assets, encompassing knowledge, skills, relationships, and innovative capabilities. This objective can be realized through diverse strategies, including cultivating a culture of knowledge exchange, investing in employee training and development, and implementing robust practices for managing intellectual property. Through the proficient harnessing and utilization of intellectual capital, organizations can elevate their competitiveness, generate value, and attain sustainable growth.

In terms of governance practices, organizations ought to embrace mechanisms aligning the interests of managers and shareholders, as proposed by the Trade-Off Theory and Stewardship Theory. Achieving this involves implementing effective monitoring systems, fostering transparency and accountability, and encouraging responsible stewardship behavior among managers. By aligning managerial incentives with long-term organizational success, organizations can incentivize managers to prioritize the efficient utilization and management of intellectual capital resources, thereby enhancing firm performance.

Furthermore, organizations should acknowledge the role of intellectual capital as a mediator in the relationship between corporate governance practices and firm performance. Recognizing this mediation effect underscores the importance of integrating intellectual capital considerations into corporate governance frameworks and decision-making processes. Organizations should

formulate strategies and mechanisms to measure, monitor, and enhance intellectual capital, considering it a critical driver of firm performance. This may include developing intellectual capital metrics, conducting regular assessments of intellectual capital resources, and incorporating intellectual capital considerations into performance evaluation and incentive systems.

5.5 Suggestions for Future Research

This study offers valuable insights into the interplay among corporate governance, intellectual capital, and firm performance. Nonetheless, there remain opportunities for future research that can further enhance our comprehension of this intricate relationship. Firstly, subsequent research could delve into the specific mechanisms by which board meetings and board independence impact intellectual capital and firm performance. While this study establishes a positive correlation among these variables, further exploration is essential to uncover the underlying processes and dynamics propelling this relationship. Qualitative studies or case studies, for instance, might provide deeper insights into how board meetings facilitate knowledge sharing and innovation within organizations and how independent directors contribute to effective governance and intellectual capital management.

Secondly, it would be advantageous to explore the role of other corporate governance practices in influencing intellectual capital and firm performance. This study concentrated on board meetings and board independence, but additional governance factors like executive compensation, board diversity, and the roles of top management teams could potentially affect intellectual capital. Investigating these factors and their interactions with intellectual capital could furnish a more holistic understanding of the governance-intellectual capital-performance relationship. Furthermore, future research could scrutinize the contextual factors moderating the relationship between corporate governance, intellectual capital, and firm performance. Given that organizations

function in diverse industries, cultural settings, and regulatory environments, which may impact the effectiveness of governance practices and the utilization of intellectual capital, exploring how these contextual factors influence the relationship would offer valuable insights for practitioners and policymakers in tailoring governance and intellectual capital strategies to specific organizational contexts.



REFERENCES

- Abraham, M., 2017. Pay formalization revisited: Considering the effects of manager gender and discretion on closing the gender wage gap. *Academy of Management Journal*, 60(1), pp.29-54.
- Addink, H., 2019. Good governance: Concept and context. Oxford University Press.
- Afolabi, T.A., 2018. Competitiveness of Togolese Banking Sector. *Theoretical Economics Letters*, 8(11), pp.2497-2519.
- Ahmed, E.R., Alabdullah, T.T.Y., Amran, A. and Yahya, S.B., 2018. Indebtedness Theory and Shariah Boards: A Theoretical Approach. *Global Business & Management Research*, 10(1).
- Ahmed, M.G., Ganesan, Y., Hashim, F. And Sadaa, A.M., 2021. The effect of chairman tenure on governance and earnings management: A case study in Iraq. *The Journal of Asian Finance, Economics and Business*, 8(3), pp.1205-1215.
- Ai, H., Frank, M.Z. and Sanati, A., 2020. The trade-off theory of corporate capital structure.
- Alabdullah, T.T.Y., 2016. Are board size and ownership structure beneficial in emerging markets' firms? Evidence from Jordan. *International Journal of Management & Information Systems (IJMIS)*, 20(3), pp.87-94.
- Alabdullah, T.T.Y., 2019. Management accounting and service companies' performance: Research in emerging economies. *Australasian Accounting, Business and Finance Journal*, 13(4), pp.100-118.
- Alabdullah, T.T.Y., 2021. Ownership Structure and the Failure or Success of Firm Performance: Evidence from Emerging Market; Cross-sectional Analysis. *International Journal of Business and Management Innovation*, 10(8), pp.17-20.
- Alabdullah, T.T.Y., Ahmed, E.R., Almashhadani, M., Yousif, S.K., Almashhadani, H.A., Almashhadani, R. and Putri, E., 2021. How Significantly to Emerging Economies Benefit From Board Attributes and Risk Management in Enhancing Firm Profitability?. *Journal of Accounting Science*, 5(2), pp.100-109.
- Alabdullah, T.T.Y., Al-Fakhri, I., Ahmed, E.R. and Kanaan-Jebna, A., 2021. Empirical Study Of The Influence Of Board Of Directors' feature On Firm Performance. *Russian Journal of Agricultural and Socio-Economic Sciences*, 11(119), pp.137-146.

- Alabdullah, T.T.Y., Yahya, S. and Ramayah, T., 2014. Corporate governance mechanisms and Jordanian companies' financial performance. *Asian Social Science*, 10(22), p.247.
- Alalade, Y.S.A., Onadeko, B.B. and Okezie, O.F.C., 2019. Corporate Governance Practices and Firms' Financial Performance of Selected Manufacturing Companies in Lagos State, Nigeria. *International Journal of Finance and Banking Research*, 5(6), pp.154-165.
- Alfadhil, M.M.A. and Alabdullah, T.T.Y., 2016. Agency cost and management behavior: The role of performance as a moderator. *International Journal of Science and Research (IJSR)*, 5(1), pp.1858-1864.
- Ali, B.J. and Anwar, G., 2021. Intellectual capital: A modern model to measure the value creation in a business. Ali, BJ, & Anwar, G.(2021). *Intellectual capital: A modern model to measure the value creation in a business. International Journal of Engineering, Business and Management*, 5(2), pp.31-43.
- Ali, M., 2018. Impact of corporate governance on firm's financial performance (A comparative study of developed and non-developed markets). *Economic Research*, 2(1), pp.15-30.
- Almashhadani, M. and Almashhadani, H.A., 2022. Does Corporate Governance Improve Corporate Profitability: Reviewing the Role of Internal Corporate Governance Mechanisms. *International Journal of Business and Management Invention*, 11(6), pp.07-11.
- Almashhadani, M., 2020. Testing the effecting elements of R&D engineer's inventively in design industrialization Sector: A study in Singapore. *Journal of Information and Computational Science*, 10(5), pp.252-258.
- Alshehhi, A., Nobanee, H. and Khare, N., 2018. The impact of sustainability practices on corporate financial performance: Literature trend
- Alvino, F., Di Vaio, A., Hassan, R. and Palladino, R., 2020. Intellectual capital and sustainable development: A systematic literature review. *Journal of Intellectual Capital*, 22(1), pp.76-94.
- Amamou, M. and Ben-Ahmed, K., 2019. Agency conflicts between business owners and managers: empirical evidence from Tunisia. *International Journal of Business Performance Management*, 20(1), pp.34-45.
- Amaning Danquah, C., Minkah, P. A. B., Osei Duah Junior, I., Amankwah, K. B., & Somuah, S. O. (2022). Antimicrobial compounds from microorganisms. *Antibiotics*, 11(3), 285.

- Andersen, J.A., 2019. A rejoinder on managerial discretion: Andersen (2017) vs Haj Youssef and Teng (2019). *Corporate Governance: The International Journal of Business in Society*.
- Anwar, M., 2018. Business model innovation and SMEs performance—does competitive advantage mediate? *International Journal of Innovation Management*, 22(07), p.1850057.
- Appuhami, R. and Bhuyan, M., 2015. Examining the influence of corporate governance on intellectual capital efficiency: Evidence from top service firms in Australia. *Managerial Auditing Journal*.
- Appuhami, R. and Bhuyan, M., 2015. Examining the influence of corporate governance on intellectual capital efficiency: Evidence from top service firms in Australia. *Managerial Auditing Journal*.
- Arifin, J., 2016. Corporate governance and intellectual capital on financial performance of bank sector companies: Indonesia stock exchange 2008-2012. *Journal of Administrative Sciences and Policy Studies*, 4(1), pp.61-82.
- Arora, A. and Bodhanwala, S., 2018. Relationship between corporate governance index and firm performance: Indian evidence. *Global Business Review*, 19(3), pp.675-689.
- Ausat, S.A.A., 2018. The relationship between corporate governance and financial performance in islamic banks. *Jurnal Ekonomi & Studi Pembangunan*, 19(2), pp.91-100.
- Awaysheh, A., Heron, R.A., Perry, T. and Wilson, J.I., 2020. On the relation between corporate social responsibility and financial performance. *Strategic Management Journal*, 41(6), pp.965-987.
- Aziz, Q., 2021. Corporate governance mechanisms on the internal relations between managers and subordinates. In *Transforming Corporate Governance and Developing Models for Board Effectiveness* (pp. 202-212). IGI Global.
- Bacher, P., Madsen, H., & Nielsen, H. A. (2009). Online short-term solar power forecasting. *Solar energy*, 83(10), 1772-1783.
- Banahene, K.O., 2018. Ghana banking system failure: the need for restoration of public trust and confidence. *International Journal of Business and Social Research*, 8(10), pp.1-5.
- Bawaneh, S.S., 2020. Impact of corporate governance on financial institutions' performance: A board composition case. *Asian Economic and Financial Review*, 10(1), pp.54-63.
- Bayraktaroglu, A.E., Calisir, F. and Baskak, M., 2019. Intellectual capital and firm performance: an extended VAIC model. *Journal of Intellectual Capital*.

- Bellucci, M., Marzi, G., Orlando, B. and Ciampi, F., 2020. Journal of Intellectual Capital: a review of emerging themes and future trends. *Journal of Intellectual Capital*.
- Bhatt, P.R. and Bhatt, R.R., 2017. Corporate governance and firm performance in Malaysia. *Corporate Governance: The International Journal of Business in Society*.
- Boachie, C., 2021. Corporate governance and financial performance of banks in Ghana: the moderating role of ownership structure. *International Journal of Emerging Markets*, (ahead-of-print).
- Bontis, N. and Fitz-enz, J., 2002. Intellectual capital ROI: a causal map of human capital antecedents and consequents. *Journal of Intellectual Capital*.
- Bontis, N., 2002. National intellectual capital index: Intellectual capital development in the Arab Region. *Institute for Intellectual Capital Research, Ontario*.
- Bunderson, S. and Thakor, A.V., 2020. Personal and Organizational Higher Purpose, Corporate Governance and Shareholder Value: Survey Results. *Corporate Governance and Shareholder Value: Survey Results. European Corporate Governance Institute–Finance Working Paper*, (692).
- Bunea, O.I., 2019, May. Repositioning sales as an influence on innovation and a source of sustainable competitive advantage. In *Proceedings of the International Conference on Business Excellence*. 13(1), pp. 492-504.
- Col, B. and Sen, K., 2019. The role of corporate governance for acquisitions by the emerging market multinationals: Evidence from India. *Journal of Corporate Finance*, 59, pp.239-254.
- Costa, V. and Sarmento, R.P., 2021. Panel Data: A Case Study Analysis. In *Encyclopedia of Information Science and Technology, Fifth Edition* (pp. 637-657). IGI Global.
- Daniel, C.O., 2019. Corporate Governance and Its Effects on Accountability and Financial Performance of Organisations. *Management and Economic Journal*, 3(1), pp.476-489.
- Daoud, J. I 2017. Multicollinearity and Regression Analysis. IOP Conf. Series: Journal of Physics: Conf. Series 949 (2017) 012009
- Davis, J.H., Schoorman, F.D. and Donaldson, L., 2018. Toward a stewardship theory of management. In *Business Ethics and Strategy, Volumes I and II* (pp. 473-500). Routledge.

- Debrah, A.A., 2018. Re-visiting the link between sustainable development and optimal mining: developing a strategy for growth and development of resource-rich African countries (Doctoral dissertation, University of the Witwatersrand).
- Donaldson, L. and Davis, J.H., 1991. Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, 16(1), pp.49-64.
- Dube, I., 2019. Transnational Corporations' Social License to Operate—The Third Facet of Corporate Governance. In *Code of Conduct on Transnational Corporations* (pp. 111-130). Springer, Cham.
- Dzingai, I. and Fakoya, M.B., 2017. Effect of corporate governance structure on the financial performance of Johannesburg Stock Exchange (JSE)-listed mining firms. *Sustainability*, 9(6), p.867.
- Dźwigoł, H. 2019. Research methods and techniques in new management trends: research results. *Virtual Economics*, 2(1), 31-48.
- Ehsan, S., 2019. Corporate Social Responsibility; Measurement, and its Nexus with Earning's Management and Corporate Governance (Doctoral dissertation, COMSATS Institute of Information Technology, Islamabad).
- Feng, C., Jiang, L., Ma, R. and Bai, C., 2021. Servitization strategy, manufacturing organizations and firm performance: a theoretical framework. *Journal of Business & Industrial Marketing*.
- Feng, Y., Akram, R., Hieu, V.M. and Tien, N.H., 2021. The impact of corporate social responsibility on the sustainable financial performance of Italian firms: mediating role of firm reputation. *Economic Research-Ekonomska Istraživanja*, pp.1-19.
- Ferdous, L.T., 2019. Capital structure theories in finance research: A historical review. *Australian Finance & Banking Review*, 3(1), pp.11-19.
- Ganda, F., 2022. The Impact of Corporate Governance on Corporate Financial Performance: Cases from Listed Firms in Turkey. *Journal of Governance and Regulation/Volume*, 11(2).
- Girella, L., 2021. Integrated Reporting and Corporate Governance: *Boards, Long-Term Value Creation, and the New Accountability*. Routledge.
- Gulzar, I., Haque, S.I. and Khan, T., 2020. Corporate governance and firm performance in Indian textile companies: evidence from NSE 500. *Indian Journal of Corporate Governance*, 13(2), pp.210-226.

- Heldeweg, M.A., 2017. Normative alignment, institutional resilience and shifts in legal governance of the energy transition. *Sustainability*, 9(7), p.1273.
- Heracleous, L., 2001. What is the impact of corporate governance on organisational performance? *Corporate governance: an international review*, 9(3), pp.165-173.
- Herman, E., 2016. The importance of the manufacturing sector in the Romanian economy. *Procedia Technology*, 22, pp.976-983.
- Huber, W., 2020. Social/critical/emancipatory accounting research: Its failure and prospects for redemption. In *Accounting, Accountability and Society* (pp. 167-187). Springer, Cham.
- Islam, M. and Managi, S., 2019. Green growth and pro-environmental behavior: Sustainable resource management using natural capital accounting in India. *Resources, Conservation and Recycling*, 145, pp.126-138.
- Jensen, D. R., and Ramirez, D. E. 2013. Variance Inflation in Regression. *Advances in Decision Sciences*, 1-5.
- Jensen, M.C. and Meckling, W.H., 1979. Rights and production functions: An application to labor-managed firms and codetermination. *Journal of Business*, pp.469-506.
- Kadim, A., Sunardi, N. and Husain, T., 2020. The modeling firm's value based on financial ratios, intellectual capital and dividend policy. *Accounting*, 6(5), pp.859-870.
- Kanaan-Jebna, A. and Baharudin, A.S., 2015. The contingent impact of inter-organization communication on the relationships between market and entrepreneurial orientations and manufacturing SME performance in Malaysia. *Journal of Scientific Research and Development. ISSN*, pp.1115-7569.
- Kasraoui, N. and Kalai, L., 2018. Efficiency And Internal, External Governance And Control Mechanisms Of Tunisian Banks.
- Kevin, K., Steve, T. and Mike, W., 2016. *Corporate governance*.
- Khan, M.T., Al-Jabri, Q.M. and Saif, N., 2021. Dynamic relationship between corporate board structure and firm performance: Evidence from Malaysia. *International Journal of Finance & Economics*, 26(1), pp.644-661.
- Kiewit, L. 2019. VBS and Steinhoff investigations at “advanced stage” — NPA and SIU. Retrieved 20 May, 2020 from. <https://mg.co.za/article/2019-10-16-vbs-and-steinhof-investigations-at-advanced-stage-npa-and-siu/>

- Kivunja, C. and Kuyini, A.B., 2017. Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education*, 6(5), pp.26-41.
- Kokkinis, A., 2017. Corporate law and financial instability. Routledge.
- Kong, Y., Antwi-Adjei, A. and Bawuah, J., 2020. A systematic review of the business case for corporate social responsibility and firm performance. *Corporate Social Responsibility and Environmental Management*, 27(2), pp.444-454.
- Kpodo, B. 2019. Exploring the underlying corporate governance weaknesses in the recent banking crisis in Ghana Retrieved 19 May 2020 from. <https://www.modernghana.com/news/954587/exploring-the-underlying-corporate-governance-weak.htm>
- Kumar, P. and Zattoni, A., 2017. Advancing the literature on ownership structure and corporate governance. *Corporate Governance: An International Review*, 1(25), pp.2-3.
- Kyere, M. and Ausloos, M., 2021. Corporate governance and firms financial performance in the United Kingdom. *International Journal of Finance & Economics*, 26(2), pp.1871-1885.
- Laperche, B., 2021. Large firms' knowledge capital and innovation networks. *Journal of the Knowledge Economy*, 12, pp.183-200.
- Lima, B.F. and Sanvicente, A.Z., 2013. Quality of corporate governance and cost of equity in Brazil. *Journal of Applied Corporate Finance*, 25(1), pp.72-80.
- Liu, M., Brynjolfsson, E. and Dowlatabadi, J., 2021. Do digital platforms reduce moral hazard? The case of Uber and taxis. *Management Science*, 67(8), pp.4665-4685.
- Maroun, W. and Cerbone, D., 2020. Corporate Governance in South Africa. In *Corporate Governance in South Africa*. De Gruyter Oldenbourg.
- Martín-de Castro, G., Díez-Vial, I. and Delgado-Verde, M., 2019. Intellectual capital and the firm: evolution and research trends. *Journal of Intellectual Capital*.
- Mention, A. L. (2012). Intellectual capital, innovation and performance: A systematic review of the literature. *Business and Economic Research*, 2(1).
- Mishra, R.K. and Kapil, S., 2017. Study on theories and mechanisms of corporate governance. *International Journal of Accounting, Auditing and Performance Evaluation*, 13(1), pp.1-41.

- Moyo, D. and Olowosegun, A., 2021. Resilience of Informal Public Transport and Urban Land Governance in Ibadan, Nigeria. In *Land Issues for Urban Governance in Sub-Saharan Africa* (pp. 281-297). Springer, Cham.
- Mubarik, M.S., Bontis, N., Mubarik, M. and Mahmood, T., 2021. Intellectual capital and supply chain resilience. *Journal of Intellectual Capital*.
- Mutia, E., Jannah, R. and Rahmawaty, R., 2019, January. Islamicity performance index of Islamic banking in Indonesia. In *1st Aceh Global Conference (AGC 2018)* (pp. 424-436). Atlantis Press.
- Myers, S.C., 1984. Finance theory and financial strategy. *Interfaces*, 14(1), pp.126-137.
- Nag, T. and Chatterjee, C., 2020. Exploring Linkages Between Corporate Governance and Business Performance: Does Good Corporate Governance Lead to Enhanced Business Value? *South Asian Survey*, 27(1), pp.37-61.
- Nguyen Thanh, C., 2019. Optimal cash holding ratio for non-financial firms in the Vietnam stock exchange market. *Journal of Risk and Financial Management*, 12(2), p.104.
- Nordberg, D., 2020. The Problems and Remedies in Corporate Governance. In *The Cadbury Code and Recurrent Crisis* (pp. 15-27). Palgrave Macmillan, Cham.
- OECD (1999), "Guidelines and instructions for OECD symposium", International Symposium Measuring Reporting Intellectual Capital: Experience, Issues, and Prospects, OECD, Amsterdam, Paris, June.
- OECD (2015), OECD Guidelines on Corporate Governance of State-Owned Enterprises, 2015 Edition, OECD Publishing, Paris.
- Okolie, A.O. and Uwejean, J.C., 2022. Board Characteristics and Financial Performance of Conglomerates in Nigeria. *European Journal of Business and Management Research*, 7(2), pp.12-18.
- Owiredun, A. and Kwakye, M., 2020. The effect of corporate governance on financial performance of commercial banks in Ghana. *International Journal of Business and Social Science*, 11(5), pp.18-27.
- Ozdemir, O. and Kilincarslan, E., 2021. The governance role of shareholders and board of directors on firm performance: an eclectic governance-performance model. *International Journal of Accounting & Information Management*.

- Paccès, A.M., 2019. The law and the balance between discretion and accountability in corporate governance. *Corporate Governance: Search for the Advanced Practices*, pp.15-19.
- Padhi, P.K., 2018. A Quest towards Fashion Design Protection Model for the Intellectual Property Rights Global Regime. *International Journal for Research in Applied Sciences and Biotechnology (IJRASB)*, 5(5), pp.4-14.
- Pulic, A., 1998, January. Measuring the performance of intellectual potential in knowledge economy. In *2nd McMaster Word Congress on Measuring and Managing Intellectual Capital by the Austrian Team for Intellectual Potential* (pp. 1-20).
- Richardson, D.B., Hamra, G.B., MacLehose, R.F., Cole, S.R. and Chu, H., 2015. Hierarchical regression for analyses of multiple outcomes. *American Journal of Epidemiology*, 182(5), pp.459-467.
- Saidat, Z., Silva, M. and Seaman, C., 2018. The relationship between corporate governance and financial performance: Evidence from Jordanian family and nonfamily firms. *Journal of Family Business Management*.
- Sarpong-Danquah, B., Oko-Bensa-Agyekum, K. and Opoku, E., 2022. Corporate governance and the performance of manufacturing firms in Ghana: Does ownership structure matter? *Cogent Business & Management*, 9(1), p.2101323.
- Selassie, A. R. (2018). Ghana's banking crisis. Is it more of bad corporate governance practices or weak regulations?
- Shahwan, T.M. and Fathalla, M.M. 2020, "The mediating role of intellectual capital in corporate governance and the corporate performance relationship", *International Journal of Ethics and Systems*, Vol. 36 No. 4, pp. 531-561
- Shahwan, T.M., 2015. The effects of corporate governance on financial performance and financial distress: evidence from Egypt. *Corporate Governance*.
- Shkolnyk, I.O., Kozmenko, S.M., Polach, J. and Wolanin, E., 2020. State financial security: Comprehensive analysis of its impact factors.
- Soewarno, N. and Tjahjadi, B., 2020. Measures that matter: an empirical investigation of intellectual capital and financial performance of banking firms in Indonesia. *Journal of Intellectual Capital*.

- Sohilauw, M.I., Nohong, M. and Sylvana, A., 2020. The relationship between financial literacy, rational financing decision, and financial performance: An empirical study of small and medium enterprises in Makassar. *Jurnal Pengurusan*, 59, pp.89-102.
- Srivastava, V., Das, N. and Pattanayak, J.K., 2018. Corporate governance: mapping the change. *International Journal of Law and Management*, 60(1), pp.19-33.
- Stewart, G., 1997. Supply-chain operations reference model (SCOR): the first cross-industry framework for integrated supply-chain management. *Logistics information management*.
- Sulimany, H.G., Ramakrishnan, S., Chaudhry, A. and Bazhair, A.H., 2021. Impact of Corporate Governance and Financial Sustainability on Shareholder Value. *Studies of Applied Economics*, 39(4).
- Tee, L.S. and Nizam, I., 2020. The Influence of corporate governance on financial performance mediated by gender diversity. *Journal of Asian Business Strategy*, 10(1), pp.61-79.
- Titisari, K.H., Moeljadi, M., Ratnawati, K. and Indrawati, N.K., 2019. The roles of cost of capital, corporate governance, and corporate social responsibility in improving firm value: evidence from Indonesia. *Investment Management & Financial Innovations*, 16(4), p.28.
- Torring, J. and Bentzen, T.Ø., 2020. Does stewardship theory provide a viable alternative to control-fixated performance management? *Administrative Sciences*, 10(4), p.86.
- Uddin, N., 2015. Determinants of corporate capital structure: A theoretical integration and some empirical evidences. *International Journal of Economics and Finance*, 7(7), pp.254-277.
- Ullah, W., Ali, S. and Mehmood, S., 2017. Impact of excess control, ownership structure and corporate governance on firm performance of diversified group firms in Pakistan. *Business & Economic Review*, 9(2), pp.49-72.
- van Wyk, L.M. and Wesson, N., 2021. Alignment of executive long-term remuneration and company key performance indicators: An exploratory study. *Journal of Economic and Financial Sciences*, 14(1), p.17.
- Varottil, U., 2021. Minority shareholders rights, powers, and duties: the market for corporate influence. In *Comparative Corporate Governance* (pp. 346-367). Edward Elgar Publishing.
- Wang, M., Beal, D.J., Chan, D., Newman, D.A., Vancouver, J.B. and Vandenberg, R.J., 2017. Longitudinal research: A panel discussion on conceptual issues, research design, and statistical techniques. *Work, Aging and Retirement*, 3(1), pp.1-24.

- Wang, P. and Muhammad, R., 2020. Corporate Governance and Financial Performance of the Firm: The Mediating Role of Capital Structure. *Journal of Global Business and Trade*, 16, pp.49-65.
- Yameen, M., Farhan, N.H. and Tabash, M.I., 2019. The impact of corporate governance practices on firm's performance: Empirical evidence from Indian tourism sector. *Journal of International Studies*, 12(1).
- Yameen, M., Farhan, N.H. and Tabash, M.I., 2019. The impact of corporate governance practices on firm's performance: Empirical evidence from the Indian tourism sector. *Journal of International Studies*, 12(1).
- Yilmaz, K., 2013. Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education*, 48(2), pp.311-325.
- Yusliza, M.Y., Yong, J.Y., Tanveer, M.I., Ramayah, T., Faezah, J.N. and Muhammad, Z., 2020. A structural model of the impact of green intellectual capital on sustainable performance. *Journal of Cleaner Production*, 249, p.119334.
- Zhang, X., 2019. Integration of CCP Leadership with Corporate Governance. Leading Role or Dismemberment? *China Perspectives*, 2019(2019-1), pp.55-63.
- Zorn, A., Esteves, M., Baur, I. and Lips, M. 2018. "Financial ratios as indicators of economic sustainability: a quantitative analysis for Swiss dairy farms", *Sustainability*, Vol. 10 No. 8, pp. 1-20.

- Zulfiqar, B. and Malik, I.R., 2019. Analyzing the Impact of Corporate Governance on Financial Performance of Firms in Emerging Markets of South Asia. *Published in Pakistan Journal of Social Issues*, 10, pp.109-127.
- Aslam, E., Ur Rehman, A. and Iqbal, A., 2023. The mediating role of intellectual capital in corporate governance and financial efficiency of Islamic banks. *Corporate Governance: The International Journal of Business in Society*.
- Vo, D.H., Van, L.T.H., Hoang, H.T.T. and Tran, N.P., 2023. The interrelationship between intellectual capital, corporate governance and corporate social responsibility. *Social Responsibility Journal*, 19(6), pp.1023-1036.
- Thien, T.H. and Hung, N.X., 2023. Intellectual capital and investment efficiency: The mediating role of strategic management accounting practices. *Cogent Business & Management*, 10(2), p.2207879.

