EFFECT OF CORPORATE GOVERNANCE MECHANISMS ON INTELLECTUAL CAPITAL DISCLOSURE OF LISTED FIRMS IN NIGERIA

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ABSTRACT

Intellectual capital (IC) is widely recognized as a critical driver of competitive advantage, innovation, and value creation in modern organizations. However, effective disclosure of IC remains a challenge, particularly in emerging economies like Nigeria, where corporate governance mechanisms play a pivotal role in enhancing transparency. This study examines how corporate governance influences intellectual capital disclosure (ICD) among listed firms in Nigeria. Specifically, it addresses the unexplored area of constructing a comprehensive Nigerian Corporate Governance Code, comprising sub-indices for board structure, board procedures, and ownership structure utilizing empirically established models. The study's objectives are; to determine the effect of board structure on intellectual capital of listed firms in Nigeria, to examine the effect of board procedures on intellectual capital disclosure of listed firms in Nigeria, to examine the effect of board committees on intellectual capital disclosure of listed firms in Nigeria, to examine the effect of ownership structure on intellectual capital disclosure of listed firms in Nigeria and to determine the effect of firm's disclosure practices on intellectual capital disclosure of listed firms in Nigeria. Employing a sample of 126 listed firms in Nigeria from 2012 to 2021, the study adopts the generalized method of moments (GMM) to address potential endogeneity and ensure robust estimation. Findings reveal that the corporate governance variable of ownership structure emerges as the strongest predictor of ICD. Supplementary analyses affirm the robustness of these findings. The study contributes to the literature by providing one of the earliest empirical validations of the corporate governance index's influence on ICD in Nigeria and highlights the critical role of comprehensive corporate governance frameworks in promoting transparency, accountability, and firm performance. Grounded in agency theory, the research underscores the theoretical importance of aligning managerial and shareholder interests to enhance ICD practices.

Keyword: Intellectual capital, Corporate governance Index, Disclosure, Agency theory

Abstrak

Modal intelek (MI) diiktiraf sebagai pemacu utama kelebihan daya saing, inovasi, dan penciptaan nilai dalam organisasi moden. Namun, pendedahan MI yang berkesan masih menjadi cabaran, terutamanya di negara membangun seperti Nigeria, di mana mekanisme tadbir urus korporat memainkan peranan penting dalam meningkatkan ketelusan. Kajian ini meneliti pengaruh tadbir urus korporat terhadap pendedahan modal intelek (PMI) dalam kalangan syarikat tersenarai di Nigeria. Secara khusus, kajian ini membina Kod Tadbir Urus Korporat Nigeria yang komprehensif, merangkumi sub-indeks struktur lembaga pengarah, prosedur lembaga, dan struktur pemilikan berdasarkan model empirikal. Objektif kajian adalah untuk menilai kesan struktur lembaga, prosedur lembaga, jawatankuasa lembaga, struktur pemilikan, serta amalan pendedahan firma terhadap PMI syarikat tersenarai di Nigeria. Dengan menggunakan sampel 126 syarikat tersenarai dari tahun 2012 hingga 2021, kajian ini menggunakan Kaedah Umum Momen (GMM) untuk mengatasi isu endogeniti dan memastikan ketepatan anggaran. Dapatan kajian menunjukkan bahawa struktur pemilikan merupakan peramal paling signifikan bagi PMI. Analisis tambahan menyokong kesahan dapatan ini. Kajian ini menyumbang kepada literatur dengan menyediakan bukti empirikal awal mengenai pengaruh indeks tadbir urus korporat terhadap PMI di Nigeria dan menekankan peranan penting rangka kerja tadbir urus yang menyeluruh dalam memupuk ketelusan, akauntabiliti, dan prestasi firma. Berdasarkan teori agensi, kajian ini menegaskan kepentingan keselarasan antara kepentingan pengurusan dan pemegang saham untuk meningkatkan amalan PMI.

Kata kunci: Modal intelek, Indeks tadbir urus korporat, Pendedahan, Teori agensi.

DECLARATION

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; and any editorial work, paid or unpaid carried out by a third party is acknowledged.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Intellectual capital IC has emerged as a pivotal force in shaping the trajectory of modern business activities across the globe. In an era where knowledge, innovation, and strategic processes have become the primary drivers of economic value, the traditional reliance on physical and tangible assets is increasingly giving way to the intangible assets that underlie a firm's competitive advantage. For many, the term "capital" still conjures images of financial resources and physical assets, yet this narrow view overlooks a critical dimension of business success, IC. This unique form of capital, distinct from conventional assets, acts as the linchpin that coordinates, enhances, and amplifies the value of all other business resources, positioning it at the heart of contemporary corporate strategy.

IC is rapidly emerging as a key driver in today's business landscape, overshadowing traditional physical and financial assets. As the global economy transitions into a knowledge-based paradigm, the emphasis has shifted from tangible resources to intangible assets such as expertise, processes, and intellectual property. While conventional capital has traditionally encompassed land, labor, and physical assets, the growing importance of IC comprising human capital, structural capital, and relational capital highlights the need for a paradigm shift in how value is understood and reported.

Historically, the foundations of economic production rested on the triad of land, labor, and capital resources that were tangible, measurable, and widely understood as the pillars of organizational wealth. However, as economies have evolved, so too has the understanding of what truly drives financial performance and competitive advantage. Beyond the conventional physical assets, the intangible elements such as knowledge, innovation, and intellectual property have risen to prominence as critical contributors to a firm's financial health and market positioning. The increasing complexity and dynamism of business operations today demand a more nuanced approach to accounting and valuation, one that recognizes the profound impact of IC and necessitates its comprehensive disclosure.

As the global economy shifts further into the knowledge era, the source of value creation within firms increasingly lies in the intellectual prowess and creativity of knowledge workers those who bring professional expertise and technical competence to the forefront of business operations. The tangible outcomes of these intangible contributions manifest in various forms, from human capital to corporate reputation, and from intellectual property to innovative processes and patents. These elements, once peripheral, have now become central to an organization's value proposition. The growing importance of these intangible assets underscores the need for companies to not only manage but also effectively disclose their IC, as it plays an indispensable role in shaping their long-term success and sustainability in an increasingly knowledge-driven world.

Intellectual capital is intangible and many practitioners and academics have identified three fundamental components of IC, namely: human capital, structural capital, and relational capital (Healy & Palepu, 2011; Veltri & Mazzotta, 2016; Made & Yuniasih , 2014 ; Zhang, 2012). IC is recognized as human capital (skills), structural capital (databases and organizational structure) and relational capital (relationships with clients and suppliers) as advanced by Abeysekera (2010).

Human capital is the competence and creativity of employees that can be further fostered by investing more in your training programs. Human capital is the experience and knowledge of employees that increase the efficiency of organizations. More efficient employees mean a more efficient organization which translates into Value Added (VA) efficiency. While structural capital is another important determinant of IC, it is made up of all non-human assets. It is recognized as all systems, procedures, databases, copyrights, patents, structural procedures, rules and policies that are important for decision making as Bontis (2004) argues. Furthermore, relational capital is an internal business relationship with external stakeholders. Trust, experience and accumulated knowledge are at the heart of the relationship between companies and their customers. Relational capital prevents customers from abandoning a business relationship because it ensures that there is good working relationship between the firm and its customers. As such, adequate management and reporting of these intellectuals will greatly affect the value of companies.

In recent years, the relationship between corporate governance practices and the disclosure of IC has garnered increasing attention among scholars, practitioners, and regulatory bodies worldwide. This focus stems from the realization that intangible assets, constituting IC, play a pivotal role in shaping a firm's competitiveness, innovation capabilities, and long-term value creation. The developed economy has long recognized IC as a key contributor to an organization's competitive advantage and value creation (Mobus, 2005). As a result, companies have been providing IC information on a voluntary basis due to an increased demand for information on their intangible assets (Guthrie & Petty, 2010), since these are not fully capitalized in traditional financial statements. Such disclosure is considered important in line with Campbell and Abdul Rahman's (2010) assertions that corporate governance and voluntary disclosure enhance investor’s protection and improve the efficiency of capital markets.

Within the context of Nigeria's evolving corporate landscape, there is dearth of research that sought to uncover the extent to which corporate governance, particularly through board mechanisms, influences the disclosure of IC by listed firms in Nigeria. But Studies like Yahaya and Apoch (2022); Yahaya and Tijani (2020); Yahaya (2019) and Oba et al. (2013) have explored the intricate linkages between corporate governance practices, board mechanisms, and IC disclosure, contributing to our understanding of these dynamics in Nigeria. There is growing awareness about the importance of the disclosure of IC in the process of creating economic value for companies in developing economies like Nigeria. This is because IC disclosure reveals important information for inside managers to understand a company's hidden value drivers and relevant information for outside investors to estimate a company's market value. Nigeria is an emerging market with a growing economy and a developing financial sector. As the country aims to attract more domestic and international investment, the quality of corporate governance practices becomes crucial. Effective corporate governance mechanisms are expected to enhance investor confidence, promote accountability, and mitigate risks, including those related to IC.

IC represents a critical intangible asset for organizations, encompassing elements such as human capital, structural capital, and relational capital. Improved corporate governance can lead to better disclosure practices, ensuring that information about a firm's IC is transparently communicated to stakeholders. This can result in more accurate assessments of a firm's overall value and prospects. A robust corporate governance framework in Nigeria can help protect the interests of investors, both local and international. Clearer and more comprehensive IC disclosure can provide investors with a better understanding of a firm's long-term sustainability and growth potential. This transparency can foster trust and encourage investment in Nigerian listed firms.

Nigerian regulatory bodies, such as the Securities and Exchange Commission (SEC), have taken steps to improve corporate governance practices. The Nigerian Code of Corporate Governance (NCCG 2018) and subsequent updates provide guidelines for corporate behavior, including the need for enhanced transparency in reporting IC. Exploring how these guidelines impact IC disclosure can provide insights into the effectiveness of these regulatory initiatives. Effective management of IC can lead to improved innovation and competitiveness. Companies that emphasize the proper utilization of their IC can create a competitive advantage. Strong corporate governance practices can facilitate the strategic utilization of IC, positively influencing the firm's overall performance and value creation.

IC disclosure is closely linked to risk management and sustainability. Effective governance mechanisms can encourage firms to assess and manage risks associated with their IC more prudently. This is especially relevant in a dynamic business environment where knowledge, skills, and relationships play a critical role in a company's success. Globally, there is a trend towards greater IC disclosure, driven by various reporting frameworks such as the International Integrated Reporting Framework. Nigerian listed firms aiming to attract international investment and align with global reporting standards could benefit from adopting these practices through improved corporate governance. Effective corporate governance encourages firms to be more accountable to various stakeholders, including employees, customers, suppliers, and the community. Enhanced IC disclosure can provide stakeholders with a better understanding of how a firm's IC is managed, potentially leading to improved stakeholder relationships.

However, the issues related to the disclosure of IC are that while the NCCG (2018) has mandated the disclosure of human resource requirements, there are no accounting regulations or a mutually agreed framework for the internal management structure, intellectual information, property and capital statement and other corporate development initiatives. Hence, the disclosure pattern of IC information is determined on company basis by the type of corporate governance in place. Consequently, a growing number of researches attempts to examine the factors associated with the disclosure of IC. One of the main factors associated with it, as pointed out by Bontis (2004), is the corporate governance mechanism, since these seem to be the determinants regarding the information that is made available to the interested parties of the company's stakeholders.

The mix of corporate governance mechanisms will greatly influence the decision to disclose the company's IC. The need to identify corporate governance mechanisms that ensure proper running and disclosure of the firm's activities was given more attention after several major corporate collapses in the early 2000s, the Enron scandal and the World Com scandal in the United States and the Royal Ahold scandal in the Netherlands are some of the examples that make financial experts pay attention to the role of corporate governance. In Nigeria, many corporate governance cases, such as Skye Bank, Intercontinental Bank, Oceanic Bank, to name a few, due to unsound corporate governance practices, excessive corporate responsibilities and governance principles have resulted in corporate scandals (Sveiby,2010).

Corporate governance is central to the disclosure of IC, as corporate governance is responsible for disclosing information about IC in the company's financial statements. Corporate governance makes decisions that are vital to the survival of the business; decisions that involve accountability for the organization's activities to stakeholders. The corporate governance mechanisms that play a key role in determining the type of voluntary and or recommended information to be disclosed by firm, as shown by Laksito and Ningsih (2014), Bontis (2004) and Campbell and Abdul Rahman (2010) are the board structure and board procedures. However, in the course of Nigerian business environment, in addition to board structure and board procedures, other sub-committee of the board like the nomination & governance committee, audit committee and remuneration committee also affect the disclosure of IC. These variables were used in this study to determine their effect on ICD.

The resource-based view of the firm according to Clulow, Julie, & Carol, (2003) characterizes board directors as a form of IC themselves because of their human capital (superior knowledge, experience and skills) and relational capital (external relationships with supply chain partners and competitors), ultimately impacting the IC performance of the company. The ability of the board to create value in accordance with the organization's vision, mission, and goals, will be enhanced when it focusses on the operation and exploitation of IC to improve the business performance. Effective board will prevent misappropriation of funds by management, which could affect corporate actions and IC flows. Nicholson and Kiel (2004) argue that administrators can also improve IC's performance by meticulously developing strategies for building human and structural capital, maintaining and improving stakeholder relations.

The level of Intellectual Capital Disclosure (ICD) in an annual report is closely related to the audit committee's responsibility for the company's financial reporting. It is the committee's responsibility to ensure the sincerity of the company's management report. They must ensure that the company is managed in accordance with the rules and regulations in force, know the potential risks and the internal control system and monitor the supervision process carried out by the internal auditors. Therefore, the existence of an audit committee strongly influences the company' information disclosure (Beasley, 1996, Forker, 1992; Laksito & Ningsih, 2014). In addition to the corporate function, the audit committee also plays a prominent role in IAS, as disclosure varies from company to company depending on the structure (Stephani & Yuyetta, 2012).

The nomination & governance committee of the board of directors plays a key role in the acquisition, management and development of IC. Because it is the function of this committee to nominate for appointment persons with the necessary skills and capabilities to further the firm's goals and objectives. This committee greatly affect the performance of the firm by the decisions they undertook in nominating requisite skills for appointment into the organization. The committee were also used in determining factor in deciding whether to disclose information related to IC in the firm's financial reports.

Similarly, the remuneration committee of the board which is charged with the responsibilities for the determination of remuneration policy and its application to executive management, performance evaluation, the adoption of incentive plans, and various governance responsibilities related to remuneration have a significant role in determining the performance of IC in the firm. This is because, the incentive and remuneration policy in place for directors and employees will either motivate or discourage them in performing ultimately. This effect on IC performance have an impact on the disclosure of IC information by the firm, which is in line with signalling theorist that suggest, firms will only disclose information that will show evidence of strength to the public.

The board and its committee manage the disclosure process and approves disclosures made to the public through corporate reporting (Holland, 2006; Li et al., 2008). The ICD indicates the superior quality of a company's IC performance, distinguishing the company from those with lower IC performance (An et al., 2011). Boards of companies with low levels of IC and performance will be reluctant to do ICDs due to possible adverse actions, such as investors diverting their investments or ceasing to invest further in the company, lenders renegotiating credit terms, and unions demanding that more resources be allocated to employee development and well-being (Williams, 2001). Companies with poor IC performance would find it difficult to deal with such retaliation.

Boards are encouraged to disclose IC information even when IC performance is poor. However, the threat of competitors will motivate companies to limit ICD to the extent that the perceived costs of disclosure outweigh the benefits (Healy and Palepu, 2001). Disclosure costs also include political, litigation, and audit costs (An et al., 2015). There is relationship between corporate governance practices and the management and utilization of IC. within organizations. This involves how the governance structures, policies, and practices of a company impact its ability to effectively manage and leverage its intellectual assets, which include intangible resources such as knowledge, expertise, patents, trademarks, and human capital. Corporate governance indices often measure the effectiveness and transparency of a company's governance practices, while IC encompasses the intangible assets that contribute to an organization's overall value and competitive advantage. Understanding the interplay between these two concepts can provide insights into how well-governed companies are able to capitalize on their intellectual assets and create value for shareholders and stakeholders. This explores how strong corporate governance practices enhance the identification, protection, and utilization of IC, ultimately influencing an organization's innovation, performance, and long-term sustainability. It is in this context that this study assesses the effect of corporate governance arrangements on the IC disclosure of listed companies in Nigeria.

1.2 Problem Statement

IC is a critical driver of innovation, productivity, and sustainable economic growth, particularly in a knowledge-driven global economy. However, in Nigeria, the disclosure of IC remains inadequate, undermining firms' competitive advantage and their ability to attract investment. This failure to adequately identify, measure, and disclose IC information in financial reports has far-reaching consequences. These include economic inefficiencies, limited stakeholder confidence, and diminished global competitiveness National Bureau of Statistics (2021). As noted by the CEO of the Financial Reporting Council of Nigeria Ahmed Shuaibu, firms must prioritize IC to navigate Nigeria's challenging economic and geopolitical realities, which are characterized by economic instability, high unemployment, and insufficient investment in human capital.

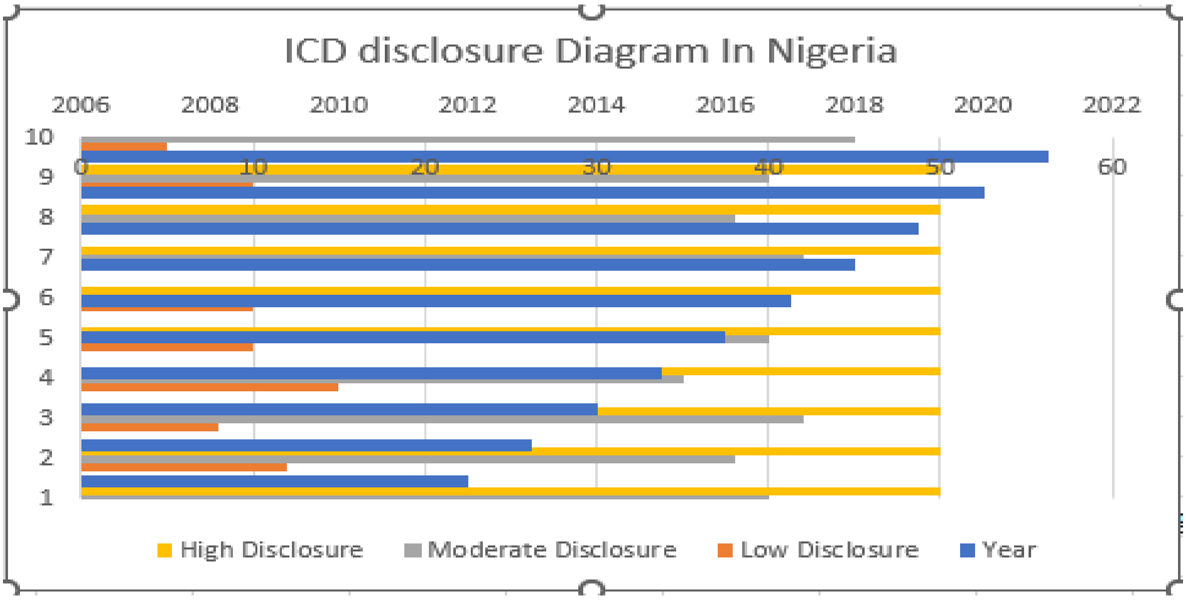

Figure 1.1: ICD Disclosure in Nigeria

Source: Salman (2023)

To illustrate this point, Figure 1.1 from Salman (2023) highlights trends in ICD among Nigerian firms, showing an upward trajectory in recent years. However, this increase has been neither uniform across sectors nor comprehensive in scope. While some firms have made progress, others continue to neglect critical components of intellectual assets, missing opportunities to signal their strength to stakeholders. This inconsistency underscores the need for a more robust corporate governance framework to standardize ICD practices and address the gaps in disclosure.

The challenges surrounding IC disclosure in Nigeria are severe. Firms often rely on traditional business practices, failing to adapt to the demands of a knowledge-driven economy. This has led to operational inefficiencies, layoffs, and closures during periods of economic stress, as evidenced during the COVID-19 pandemic, when 50% of Nigerian firms reported workforce reductions and 41% shut down operations National Bureau of Statistics (2021). Moreover, inadequate recognition and disclosure of IC exacerbates economic instability, reduces Nigeria's ability to attract foreign investment, and hinders its contribution to global development agendas, such as the Sustainable Development Goals (SDGs). Geopolitical instability and policy inconsistencies further compound these issues, making it imperative for Nigerian firms to enhance IC practices as a means of stabilizing the economy and fostering growth.

In response to these challenges, Nigerian authorities have taken several steps to strengthen corporate governance and IC disclosure. The introduction of SAS 22 on intangible assets in 2006 marked the beginning of standardized reporting of IC-related information. This was further enhanced by Nigeria's gradual alignment with International Financial Reporting Standards (IFRS) and the implementation of the NCCG (2018), which recommends full disclosure of IC as best practice. Despite these efforts, enforcement and implementation remain weak, limiting their overall impact on ICD practices and leaving significant room for improvement.

While previous studies have examined corporate governance mechanisms and ICD, important research gaps remain. Most prior studies have focused on conventional governance variables, such as board size and audit committee composition, and were conducted before the introduction of the NCCG (2018). This leaves a significant gap in understanding the influence of more comprehensive governance mechanisms, such as board procedures, ownership structure, and disclosure practices, particularly under the current regulatory framework. Furthermore, the role of ownership structure in shaping ICD patterns, especially in emerging markets like Nigeria, has been largely underexplored, despite its potential to influence corporate transparency and stakeholder trust.

Theoretical gaps also exist in understanding the relationship between corporate governance and ICD. Much of the existing literature has relied on resource-based and legitimacy theories but has overlooked the agency problem inherent in IC disclosure. The misalignment of interests between managers and shareholders often results in selective or incomplete disclosure, which undermines transparency and accountability. This study addresses this theoretical gap by adopting agency theory to examine how governance mechanisms influence ICD, emphasizing the importance of aligning managerial actions with shareholder interests to enhance transparency.

The dependent variable in this study, ICD, reflects the extent to which firms communicate their IC assets to stakeholders. This disclosure is influenced by several independent variables, including board structure, board procedures, ownership structure, board committees, and corporate disclosure practices. These governance mechanisms are critical in shaping how firms manage and disclose their IC. For example, ownership structure influences managerial incentives to disclose IC information, as dominant shareholders may prioritize or suppress certain disclosures based on their interests. Similarly, board committees, such as audit and remuneration committees, play a pivotal role in ensuring that disclosure practices align with regulatory standards and stakeholder expectations. By examining these relationships, this study seeks to understand how corporate governance mechanisms drive transparency and enhance firm performance through improved ICD.

In light of these considerations, this study investigates the impact of corporate governance mechanisms, as captured in the Nigerian Corporate Governance, on ICD among listed firms in

Nigeria. By addressing the identified research and theoretical gaps, the study provides valuable insights into the role of governance frameworks in promoting IC transparency, economic stability, and global competitiveness. It further demonstrates the importance of disclosure practices as a means of signaling managerial competence and strengthening stakeholder trust, thereby contributing to improved firm performance and economic resilience.

1.3 Research Questions

Based on the problems of the study, the following research questions are raised:

1. What is the effect of board structure on ICD of listed firms in Nigeria?
2. What is the effect of board procedures on ICD of listed firms in Nigeria?
3. What is the effect of board committees on ICD of listed firms in Nigeria?
4. What is the effect of ownership structure on ICD of listed firms in Nigeria?
5. What is the effect of firm's disclosure practices on ICD of listed firms in Nigeria?

1.4 Research Objectives

The major objective of this study is to examine the effect of corporate governance on IC disclosure of listed firms in Nigeria. The specific objectives are:

1. to determine the effect of board structure on ICD of listed firms in Nigeria;
2. to examine the effect of board procedures on ICD of listed firms in Nigeria;
3. to examine the effect of board committees on ICD of listed firms in Nigeria;
4. to examine the effect of ownership structure on ICD of listed firms in Nigeria.

5. to determine the effect of firm's disclosure practices on ICD of listed firms in Nigeria.

1.5 Scope and Limitations of the Study

This study dwells on the effect of corporate governance mechanisms on ICD of listed companies in Nigeria over a period of ten (10) years i.e. 2012-2021. This period is considered vital because it enables the current study to compare disclosure prior to the implementation of the new code of corporate governance issued by the Financial Reporting Council of Nigeria (FRCN) and disclosure after the implementation of the new code. Also, the period covered the time at which the world is facing a pandemic. The pandemic has force businesses to identify how they can continue their activities despite the restrictions on normal activities. This brought about ideas and knowledge like; virtual meetings, virtual classrooms, online orders and deliveries and so on. All these brought about the need for a knowledge base economy.

Ten years were considered sufficient to examine the effect of corporate governance mechanisms on ICD of Nigerian listed financial companies, as companies must have fully adopted and implemented the FRCN recommendations in the 2018 code. Listed companies were considered suitable for this study because of the reliability in the data that these companies make available to the public and also in order to allow comparison between companies. Another reason for selecting Listed Firms is to enable better understanding of regulations and monitoring among sectors in Nigeria. For example, in the financial sector, there are regulators that rigorously monitor and ensure that these firms comply completely to the established guidelines on operations and reporting as compared with other sectors.

The study population were all companies listed in Nigeria Exchange Group from 2012 December 31st 2021. Companies listed in Nigeria within this period comprised of one hundred and fifty-six (156) firms.

1.6 Significance of the Study

The effect of corporate governance mechanisms on ICD is significant as corporate governance builds trust on the minds of depositors, investors, employees, and other stakeholders in the economy. Therefore, this study enriches the literature and provide important quantitative information to policy-makers. Overall, this study benefits the shareholders of Nigerian companies, the Central Bank of Nigeria, the FRCN, the Nigerian Deposit Insurance Corporation, the Security and Exchange Commission, academics, employees and other interested parties.

Specifically, shareholders and potential investors of companies operating in Nigeria benefits from this study by appreciating the relevance of corporate governance in improving and maintaining ICD in the operation of their companies. They are made aware of the need for tighter oversight and control of their company's board of directors (including through a stronger shareholders' association) and more vigilant appointment of directors at annual general meetings, which leads to the protection of their investment.

Similarly, the FRCN, the Central Bank of Nigeria (CBN) and the Securities and Exchange Commission (SEC) finds the outcome of the study beneficial as it gives them clues as to the existence and nature of the relationship between corporate governance and corporate IC disclosure in Nigeria. They are also made aware of the level of compliance with the 2011 Corporate Governance Code and the new 2018 Code of Corporate Governance, areas of violation of corporate codes in Nigeria, ambiguities that need to be resolved in the codes, and the need to disclose IC information in corporate financial reports, a legal requirement.

Academics benefits from the study as it serves as a methodological contribution thus providing the methodological effects of the corporate governance mechanisms used (board characteristics, nomination & governance committee, ownership structure and audit committee attributes) on ICD and also a source of information and reference for future research in similar field of study.

Employees of Nigerian companies finds this study useful as it increases and stimulate their morale towards unloading their intellectual capacities, knowing the effects of this capital on business improvement due to the governance mechanism of the specific company that influences the divulgation of the company's IC.

Finally, the Nigerian Deposit Insurance Corporation (NDIC) benefits from the results of this study in appreciating the need for an enhanced regulatory oversight function and voluntary disclosure in the Nigerian commercial industry, to reduce the incidence of fraud and counterfeiting and the need to require companies to voluntarily disclose IC information in their financial statements.

1.7 Definition of Key Terms

Intellectual Capital: Intellectual Capital is the knowledge of the organization's human resources that can be used for profit or other useful purposes or any other information or knowledge that provides the organization with a competitive advantage. In other terms, it is a business entity that contains the information resources that the business can use at its disposal to realize benefits, attract customers, create a new product, improve an existing product or improve its topics.

Intellectual Capital Disclosure (ICD): This is defined by Abeyesekera and Guthrie (2002) as a report intended to meet the common information needs of users who are unable to commission IC reports tailored to meet, in particular, all their information needs.

Nigerian Code of Good Governance (NCCG) 2018: It is the revised system of rules, practices and processes by which a company is directed and controlled. Essentially, NCCG is about balancing the interests of a company's many stakeholders, such as shareholders, senior management, customers, suppliers, financial institutions, government, and the community. This rule is being revised to provide a framework for comprehensive corporate management and control in line with today's business environment.

Board Structure: Board structure refers to the composition, organization, and roles of a company's board of directors. It plays a crucial role in corporate governance and influences decision-making, oversight, and accountability within the organization. Different board structures can have varying impacts on how companies are managed and governed.

Board Procedures: Board procedures refer to the rules, protocols, and practices that govern the functioning of a company's board of directors. These procedures are established to ensure effective decision-making, accountability, transparency, and the proper oversight of the organization.

Board Committees: Board committees are subgroups within a company's board of directors that focus on specific areas of governance, oversight, and decision-making. These committees play a critical role in enhancing the effectiveness of the board by delving into specific issues in more detail, allowing for focused discussions and informed decision-making.

Ownership Structure: Ownership structure refers to the way in which a company's ownership is distributed among various individuals, entities, or groups. It plays a significant role in shaping the governance, decision-making, and overall dynamics of a company. Ownership structure is often categorized based on the types of owners and the extent of their ownership.

Corporate Governance Indices: corporate governance indices are used to assess the corporate governance practices of companies within a specific market or industry. These indices provide investors, regulators, and other stakeholders with a way to gauge the level of corporate governance within a company or a group of companies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The purpose of this literature review is to provide an understanding of the empirical trend in the literature regarding corporate governance mechanisms and IC disclosure. Therefore, this study reviews the literature that establishes a link between corporate governance mechanisms and the disclosure of IC, as well as the performance of companies. This chapter reviews the literature on corporate governance variables that are primarily used to explain IC disclosure and corporate performance. It also establishes gaps in the literature by identifying some corporate governance mechanisms that have come to light recently and that can be used to explain the disclosure of IC and company performance.

The literature review also provides the rationale for the use of signalling, resource-based and legitimacy theories to provide a theoretical framework for understanding the relationship between corporate governance mechanisms, IC disclosure, and company performance. The chapter is structured as a conceptual framework where the scientific concepts of key terms are reported and then an empirical, methodological and theoretical reviews are presented to establish the gaps that exist in the literature.

2.2 Concept of Corporate Governance

In the 19th century, academics viewed corporate governance as the system that cares about economic and social goals. They understand corporate governance as a structure of responsibility and distribution of roles between the different main bodies of the company. This concept, introduced by the Cadbury Committee (1992), Jensen (1993), the Basel Committee (1998), and the OECD (2006), believed that the corporate governance framework is there to encourage the efficient use of resources and also to demand responsibility for the administration of those resources; however, as would be seen in the 20th century, corporate governance encompasses more than responsibility.

In the 20th century, corporate governance, as a concept, began to be viewed from at least two perspectives. The narrow view that refers to the structures within a legal person or company and the broad view that is considered to be at the heart of both a market economy and a democratic society. Tunnel vision views corporate governance in terms of issues related to shareholder protection, management control, and the popular principal-agent problems of economic theory.

Proponents of the broader perspective use examples of the problems resulting from the privatization crusade to demonstrate that issues of institutional, legal and capacity development and the rule of law are at the very heart of corporate governance. They see corporate governance as a tool that creates control mechanisms to enable the creation of a profit-sharing and wealth-balancing system for shareholders and create efficiencies for the business. (O'Sullivan 2000 and (Huang, 2010).

However, corporate governance in the strict sense basically speaks of two aspects, namely: the governance structure and the governance mechanism in the company. The corporate governance structure is seen as the way in which all parties interested in the welfare of society attempt to ensure that managers and other experts take the necessary steps to safeguard the interests of all parties interested. That is, corporate governance involves how a company's activities are governed, including setting company objectives and a company's risk profile. It is a set of relationships between the management of the company, its board of directors, its shareholders and other interested parties.

Considering that corporate governance mechanisms are the system by which commercial companies are directed and controlled. The corporate governance mechanisms specify the distribution of rights and responsibilities among the different participants of the company, such as the board of directors, officers, shareholders and other interested parties, and establishes the rules and procedures for making decisions on corporate matters. In doing so, it provides a structure through which the company's mechanisms can achieve the stated objectives among which is the disclosure of IC which signal strength to the stakeholders of the firms. (Krambia - Karpadis & Psaros, 2006).

From the above, it is evident that opinions differ on the content and limits of corporate governance. For some, the essence is the exercise of power by the shareholders or stakeholders, while for others it is the formal structure of the relationship that implies the control and direction of the companies. What is clear from the above, however, is that in directing and controlling the affairs of a company, the board of directors must ensure that the interests of the company's various stakeholders are given due consideration.

The typical arrangements and processes that constitute a corporate governance system, such as the composition and functioning of the board of directors, risk management and auditing, are only means to ensure that the company acts in a fair, responsible, accountable and transparent manner. for all. concerned parties. In conclusion, it follows from the various definitions that corporate governance is the framework of rules, relationships, regulation, system and processes within and by which authority is exercised and controlled in companies. It covers the mechanisms by which companies and those who control them are held accountable. Corporate governance influences how business objectives are set and achieved, how risks are monitored and assessed, and how performance is optimized.

2.2.1 Corporate Governance in Nigeria as it Relates to ICD

Corporate governance systems in Nigeria are designed to minimize agency problems and promote transparency and accountability in corporate operations, including ICD (Yoshikawa et al., 2014; Porta et al., 1999). These systems are shaped by national factors such as legal frameworks, the structure of the capital market, business culture, and the political and economic environment, as well as international influences like global e-commerce, corporate group dynamics, and international securities markets (Tomasic, 2001). Nigeria's corporate governance framework bears significant resemblance to the systems in the USA and the UK, with legal principles rooted in English law, inherited during the colonial period (Kimber & Lipton, 2005).

The Nigerian corporate governance framework comprises a combination of country-level instruments, including legislation such as the Companies and Allied Matters Act (CAMA), the Nigerian Code of Corporate Governance, Nigerian Exchange Group (NGX) listing rules, and other codes of conduct, recommendations, and principles. Some of these instruments are mandatory, such as CAMA, while others, including IC disclosure guidelines, are voluntary. Collectively, these instruments aim to achieve the primary goal of corporate governance: enhancing shareholder wealth by promoting efficient market operations and safeguarding minority shareholders from exploitation by dominant shareholders. However, the role of ICD within these systems has historically been underemphasized, despite its importance in demonstrating the value of intangible assets such as human capital, structural capital, and relational capital.

In response to high-profile corporate scandals in Nigeria (e.g., Sky Bank, Cadbury Nigeria PLC, and Intercontinental Bank) and globally (e.g., Enron and WorldCom), corporate governance instruments in Nigeria have been revised periodically to strengthen their effectiveness and restore public trust. Among these instruments, the Companies and Allied Matters Act, the NGX Listing Rules, and the NCCG (2018) play a crucial role in shaping governance practices. The NCCG (2018) specifically mandates disclosure obligations, including the preparation, auditing, and submission of financial and non-financial reports, thus creating an opportunity for improved IC reporting. The NGX Listing Rules complement these requirements by regulating corporate governance practices related to market transparency, including ICD, ensuring that investors have access to information necessary for informed decision-making. Through these mechanisms, Nigeria's corporate governance framework is gradually evolving to recognize and emphasize the importance of IC disclosure as a critical element of corporate accountability and transparency.

2.2.2 The Nigerian Corporate Governance Code 2018

The Federal Government of Nigeria introduced the Nigerian Corporate Governance Code ("NCCG" or the "Code") drawn up by the Financial Reporting Council of Nigeria ("FRCN").

During 2016, the FRCN published three draft corporate governance codes for private companies, public companies and non-profit entities. The codes were suspended after the controversy generated after their publication. In carrying out its functions based on articles 11c and 51c of the FRC Law, the FRC drafted a new code that consolidates the codes for public and private companies, while the code for non-profit entities remains suspended.

The code aims to institutionalize and encourage best corporate governance practices in Nigerian companies. In particular, the code is principle-based and requires a "comply and explain" approach. Companies must adopt the practices of the code and explain the reasons for their adoption according to their activities. The FRCN will monitor the implementation of the code through the sector regulators, who will impose appropriate sanctions for violations, based on the laws and regulations of the sector. The code is divided into 7 parts and contains 28 principles. It covers the board of directors, insurance, shareholder relations, ethical business conduct, sustainability, transparency/disclosure, and definitions.

The NCCG (2018) specifies that the following entities must adopt and comply with the NCCG (2018), which is the annex to this regulation : (a) all public companies (whether listed or not); (b) all private companies that are holding companies of public companies or other regulated entities ; (c) all companies granted or privatized; and (d) all regulated private companies are private companies that file returns with any regulatory authority other than the Federal Internal Revenue Service (FIRS) and the Corporate Affairs Commission (CAC). These entities are required to report on the application of the Code in their annual reports for financial years ending after January 1, 2020 in the form and manner prescribed by the Nigerian Financial Reporting Council.

As expected, the code gives the board significant responsibilities comparable to global best practices in other countries, in addition to the responsibilities contained in the companies and related matters law. The code mandates rotation of auditing companies and their associates within a particular engagement. External audit firms cannot be retained for more than ten consecutive years. External audit firms terminated ten years after continuous service can only be reappointed seven years after their retirement. At the end of the mandate or cumulative total of an external auditor has already exceeded ten years on the date of entry into force of the Code, this auditor must stop exercising his functions as auditor of the Company at the time of the Annual General Meeting (AGM) that would have been held immediately after the entry into force of the new code. The code also requires auditors to report any violation of the law by the company to the audit committee or the board of directors. The code also requires boards to design a reporting framework that allows confidential disclosure of violations of law and violations of company policy

The code requires boards to provide full and complete disclosure of all matter's material to investors and stakeholders, as well as matters set forth in the code requires disclosure of human resource policies and internal management structure, including employee relations, employee stock ownership plans, and other workplace development initiatives. It also requires the board to implement a related party transaction policy, including threshold-based disclosure.

Good corporate governance is essential for investment and sustainability. In accordance with global best practices, principles-based codes are more effective in driving the right behaviours and achieving the desired result. Ultimately, success will depend on the willingness of companies to adopt the code and the ability of the FRCN to drive and monitor compliance. The board therefore are vital in ensuring that the financial reports of their firms truly complied with the new code of corporate governance. In view of the forgoing, this study will carefully consider those board variables and other important variables that are important to the decision of disclosing intellectual capital information. These are; Board structures, board procedures, board committees, ownership structure, firm's disclosure practices and Nigerian Corporate Governance.

2.2.3 Board Structures

2.2.3.1 Board Characteristics

The concept of the board is derived from the attributes or incentives variable that play a significant role in monitoring and controlling managers and can be described as a bridge between company management and shareholders (McIntyre 2007; Bonn, 2004; and Nicholson & Kiel, 2004). To understand the role of the board, it should be recognized that boards consists of a team of individuals, who combine their competencies and capabilities that collectively represent the pool of social capital for their firm that is contributed towards executing the governance function Westphal, (2001).

The board is the supreme decision-making unit in the management of the company, as the board of directors has responsibility to safeguard and maximize shareholders wealth, oversee firm performance, and assess managerial efficiency. Dalton et al. (1999) pointed out four actions of initiation, ratification, implementation, and monitory, undertaken by the board in the decision-making processes. Therefore, the main role of the board is seen as the ratification and monitoring of decisions, overseeing the actions of managers/ executives. From the above concept, the role of the board is quite daunting as it seeks to discharge diverse and challenging responsibilities. The board should not only prevent negative management practices that may lead to corporate failures or scandals but ensure that firms act on opportunities that enhance the value to all stakeholders and bridge the gap between stakeholders by providing adequate information. Given this, it is important to identify the board characteristics that make one board more effective from the other. Therefore, this study is set to identify and examine the board characteristics that make it effective and contribute towards disclosure of IC information by firms in Nigeria. The board characteristics considered in this study will be discussed below;

2.2.3.2 CEO Duality

Fama and Jensen's agency framework (1983) suggests that CEO duality ignores the importance of separating decision control and decision management and that when this happens, 'the board is not an effective device for decision control unless it limits the decision discretion of individual top managers', because one of the board's most important roles is to oversee top management's performance, allowing the CEO to serve also as chairperson compromises the desired system of checks and balances and clearly represent a conflict of interest. Thus, this duality has been considered to: (1) constrain board independence and reduce the possibility that the board can properly execute its oversight and governance role (Lorsh and MacIver, 1989), (2) signal the absence of separation of decision management and decision control (Fama and Jensen, 1983), and (3) make it difficult for insecure directors to be honest when evaluating firm performance which, in turn, leads to long-term organizational drift (Carver, 1990). In summary, a board on which the CEO has great power is at risk of higher information asymmetries. This issue received substantial attention in the Cadbury Committee Report (1992), which recommended that the role of CEO and chairperson should be separate in large corporations. It has been shown that boards on which the CEO is also the chairperson exercise a weaker monitoring function than boards on which the chairperson and the CEO are different (Jensen, 1993; Goyal and Park, 2002). Boyd (1994) notes that holding the highly symbolic position of board chairperson would provide the CEO with a wider power base and locus of control. In the same vein, Finkelstein and Hambrick suggest that the combination of the role of CEO and chairperson is another indicator of CEO power over a board (1996). This suggests that CEO duality reduces a board's ability to effectively and soundly control top management, which could then result in a lower level of voluntary disclosure and of transparency. Gul and Leung (2004) argue that concentrated decision-making power as a result of CEO duality could constrain board independence and impair the board's oversight and governance roles, affecting corporate disclosure policies. Hence, an independent board chairperson should facilitate a frank assessment of the top management team's performance (Boyd, 1994), thereby improving the board's ability to exercise effective control. Empirical investigations, however, indicate controversial results: both Ho and Wong (2001), who analysed the relationship between corporate governance structures and the extent of voluntary disclosure in companies listed in Hong Kong, and Cheng and Courtenay (2006), who investigated board composition, regulatory regime and voluntary disclosure in Singapore-listed firms, found no association between CEO duality and voluntary disclosure. Using a sample of 385 Hong Kong-listed companies in 1996 to study the linkages of board leadership structure in terms of CEO duality and the proportion of expert outside directors on the board with voluntary disclosure, Gul and Leung (2004) documented a negative relationship between the two.

2.2.3.3 Multiple Directorship

In the context of IC reporting, multiple directorships prove crucial to the creation of a firm's links with its business environment (Adams et al., 2010), which may become a source of competitive advantage, thereby providing better strategic reasoning and vision (Ortiz-de Mandojana and Aragon-Correa, 2015). In this line, multiple directorships may help the board to understand and respond to its demands regarding IC reporting practices (Guerrero Villegas et al., 2018). Specifically, interlocking directorates are likely to provide valuable resources for a board to improve IC reporting, which remains key to mitigating environmental uncertainty and so gaining competitive advantage. In this regard, board member connections are likely to provide a unique opportunity for directors to observe the IC strategies of other firms and to exchange information regarding trends in IC reporting (Zou et al., 2019; Sun et al., 2020). Therefore, multiple directorships enable board members to gain experience about environmental and social challenges (Ramon-Llorens et al., 2019) and to manage information regarding environmental and social standards, regulations and stakeholders' expectations (Ortiz-de-Mandojana and Aragon-Correa, 2015). In addition, directors who sit on more than one board obtain greater access to IC issues (Jain et al., 2015). Thus, interlocking directorates therefore become an effective way for directors to acquire important knowledge and skills for strengthening discussions concerning IC policies and for promoting IC reporting strategies (Simoni and Caiazza, 2013). As a result, multiple directorships are likely to increase boards' awareness and their capacity to enhance the level of IC reporting to respond to society's expectations and so attain competitive advantage. When it comes to achieving competitive advantage, firms are required to implement responsive and effective IC initiatives to respond to the increasing pressure exerted by the environment (Gangi and Trotta, 2013).

Additionally, external assurance of this information is likely to enhance corporate reputation, which can be obtained through the competitive advantage gained by increased credibility and trustworthiness (Casey and Grenier, 2015; Birkey et al., 2016; Odriozola and Baraibar-Diez, 2017). In this regard, this measure enables firms to ascertain how board social capital provides intellectual capital by promoting IC reporting practices that are expected to improve firms' competitive advantage. In line with the above discussion, multiple directorships are expected to serve as a source of intellectual capital, and to lead to board members accumulating valuable resources to gain competitive advantage by improving IC reporting.

2.2.3.4 Board Independence

Board independence deals specifically with the proportion of executive and non-executive directors in the board of a firm. A higher proportion of non-executive directors might influence positively on the disclosure level (Haniffa & Cooke, 2005). Independent directors may provide advices about strategic decisions, and improve monitoring of decisions and manager's activities, this will reduce opportunism (Leftwich, Watts & Zimmerman, 1981; Fama & Jensen, 1983; Chen & Jaggi, 2000; Haniffa & Cooke, 2002). Independent directors may be elected by blockholders to represent their interests and may be able to acquire information directly, rather than through public disclosure. Outside directors may also act as a substitute for monitoring through public disclosure (Eng & Mak, 2003). However, an insufficient knowledge of business is pointed out as an inconvenient to be considered when the number of independent director is excessive, since it would reduce board effectiveness (Patton & Baker, 1987). Nevertheless, empirical results are mixed. Extant evidence indicates that voluntary disclosure increases with the number/proportion of nonexecutive/independent directors on the board (Chen & Jaggi, 2000; BabíoArcay & Muiño Vázquez, 2005; Cheng & Courtenay, 2006; Lim, Kin & Yin, 2007; Donnelly & Mulcahy, 2008). However, there is also evidence of no significant positive relationship between the proportion of independent directors on the board and the extent of voluntary disclosure (Ho & Wong, 2001; Haniffa & Cooke, 2002) and even of an increase in nonexecutive directors reducing voluntary disclosure (Eng & Mak, 2003; Barako. 2006).

2.2.3.5 Female Presence in the Board

The evolutionary biology literature indicates that women specialize in different tasks due to the demands of nature. As a result, there have been arguments and counter-arguments that women have important characteristics necessary for good governance. Specifically, it has been argued that women are conscientious, risk averse, competent in accounting and finance, and good decision makers. This makes several researchers to have recently focused on the effects that female executives and directors may potentially have on the firm's decision making and market value. Numerous scholars, such as Adams and Ferreira (2009), Campbell and Mingues-Vera (2008), and Farrell and Hersch (2005), document that female directors may have positive impact on firm decision making and market value. Similarly, Nielsen and Huse (2010) also document that female directors reduce the level of conflict in corporate boards, and they use board development activities, such as work instructions, evaluations, disclosures and development programs to improve board effectiveness.

The literature on organizational legitimacy postulates that large corporations are the most visible to the general public, which puts them under greater pressure to conform to social expectations (Hillman, 2005; Adams & Ferreira, 2009). Gender diversity is also part of the social expectations expressed worldwide by various business actors. For example, communities such as the Women's Forum and the World Summit for Women are lobbying large companies to increase the representation of women in their senior ranks. Like companies in developed countries, companies in today's emerging markets face similar pressure, both academic studies and the popular press report. Due to the perceived lack of an effective regulatory environment to improve women's representation on corporate boards in Nigeria, several communities have fallen into a regulatory vacuum. In particular, the globalization of national borders has strengthened links between local civil society and international non-governmental organizations (for example, the Women's Forum and the World Summit of Women) that help spread progressive ideas and encourage governments and/or countries to adopt and implement a global framework for gender equality.

2.2.4 Board Procedures

Board procedures refer to the established rules, protocols, and processes that guide the functioning of a company's board of directors. These procedures are essential for ensuring effective governance, decision-making, and oversight of the organization. Board procedures encompass a wide range of activities and responsibilities that help the board fulfill its fiduciary duties and contribute to the overall success of the company. The principles of agency theory imply that agents (i.e., management) may be reluctant to impose strict and binding mechanisms of corporate governance that may limit the agents' ability to act in their own best interest (Ross 1973; Eisenhardt 1989). As a result, there arises a need for stakeholders to have an entity on the inside to play a role in governing and monitoring the firm's actions on the stakeholder's behalf i.e., the board of directors (Baysinger and Butler 1985; Hillman and Dalziel 2003; Xie et al. 2003). Prior research establishes that boards face a dual set of responsibilities which can, and do, compete with one another to serve as the board's primary area of focus. In particular, companies elect a board in order to provide operating guidance to the firm's management team and/or serve as a monitoring mechanism over firm management (e.g., Boone et al. 2007; Baldenius et al. 2014; Kim et al. 2014).

The board of director are expected to focus on either monitoring management or providing guidance to management. Boards do not treat these two objectives as being mutually exclusive (Kim et al. 2014), nor is there a "one-size fits all" model applicable to all boards (Coles et al. 2008; Wintoki 2007). As a result, there is clearly overlap in the characteristics of importance to both the monitoring and the guidance functions. Thus, the same basic characteristics are of significant importance regardless of the board's primary focus (Coles et al. 2008; Cicero et al. 2013; Kim et al. 2014). Prior research (e.g., Gompers et al. 2003; Deutsch 2005; Brown et al. 2011; Roberts 2012) suggests that efficacy of the board of directors can be influenced by certain characteristics, including independence (I) of the board members from management, competence (C) or expertise of the board members (e.g., knowledge about business processes within the firm, particular fields (accounting, law, etc.), industry expertise, etc.), active (A) board members (i.e., the members meet frequently with the CEO and CFO to monitor their activities and advise, members diligent in attending board meetings and being active in those meetings), and appropriate behavioral attributes (B) by directors to act cohesively and constructively.

2.2.5 Board Committees

Board committees are specialized groups within a company's board of directors that focus on specific areas of governance, oversight, and decision-making. These committees are established to address complex issues and tasks more effectively by allowing directors with relevant expertise to delve deeply into particular aspects of the organization's operations. Audit committee as a committee is responsible for oversees of financial reporting, internal controls, and risk management. It ensures that the company's financial statements are accurate and compliant with accounting standards. Prior research has identified important features of committees that allow them to more diligently and comprehensively monitor and advise firm executives and thus contribute to firm outcomes. In particular, by being smaller, meeting more frequently, and drawing on the specialized expertise and abilities of their members, board committees can execute tasks with greater efficiency and expediency (Kesner, 1988). In addition, due to their well-defined purpose and clear expectations, it is suggested that board committees face greater scrutiny from various stakeholders, which reduces individual free-riding and encourages more effective implementation of their duties (Chen and Wu, 2016; Klein, 2002a). The importance of board committees has grown over time due to increased legal requirements and growing complexity of the business environment. Significantly greater demands are placed on board members' time and attention, as evidenced by a nearly 50 per cent increase in committees' activities and meetings across S&P 1500 firms over the last 15 years (Adams et al., 2010). A long-established precept in organization theory is that firms develop specialized structures to handle complexity (Lawrence and Lorsch, 1967). For example, the multitude of transactions in which executives engage makes overseeing their activities more difficult, requiring the board to devise, approve and implement more intricate compensation contracts. Specialized committees, such as the compensation committee, enable boards to handle this complexity through subgroup-focused responsibility and expertise, while also limiting the demands placed on individual directors. Therefore, the specialized expertise of board committees is critical to the board's ability to reach effective decisions and fulfil its fiduciary duties. However, the nature of committees and their specialized focus is likely to lead to dynamics substantively different from those of the full board and may also create potential problems for both firm governance and adaptation to changing circumstances. Appointment to a major board committee represents higher status and importance for any director (Zhu et al., 2014).

2.2.5.1 Board Nomination and Governance Committee (NGC)

The board concept derives from the variable attributes or incentives that play an important role in the monitoring and control of managers and can be described as a bridge between the management of the company and the shareholders (McIntyre 2007; Bonn, 2004; and Nicholson and Kiel, 2003). To understand the role of the board of directors, it must be recognized that boards of directors are made up of a team of people who combine their abilities and skills and collectively represent the equity fund for their company that is contributed to the running of the firm. (Westphal, 2001).

The board of directors is the most vital decision-making unit of the company, because it is responsible for protecting and maximizing the shareholders' equity, supervising the company's performance and evaluating the efficiency of management. Daltoni et al., (1998) highlighted four actions of initiation, ratification, implementation and follow-up, taken by the board in the decision-making processes. Therefore, the main role of the board of directors is considered to be the ratification and follow-up of decisions, supervising the actions of managers/leaders. From the concept above, the role of the board is quite daunting as it seeks to fulfil diverse and challenging responsibilities. The board must not only avoid negative management practices that could lead to bankruptcies or corporate scandals, but also ensure that companies take advantage of opportunities that increase value for all stakeholders.

With the mounting evidence of CEO's dominance over the selection of board members and their performance evaluation and remuneration, corporate governance codes around the world have recommended for constitution of a separate corporate governance nomination committee as a sub-committee of the board (Cadbury, 1992; The Combined Code, 2000). The rationale lies in: firstly, creation of nomination committee is likely to make better demarcation of ownership and management (Shivdasani and Yermack, 1999); and secondly, the members of nomination committee are inclined towards maintaining their own reputation by nominating directors and top level management who will prove to be effective monitors (Eminet and Guedri, 2010). Moreover, presence of nomination committee also assists the board in making better disclosure of information pertaining to human resources as it makes periodical presentation of such information to the board (Conyon and Peck, 1998; Vafeas, 1999). Accordingly, evidences mostly reveal positive impact of nomination committee on performance (Abeysekera, 2010; Tao and Hutchinson, 2013), implying that it not only improves the selection process of board members but also effectiveness in linking their performance with remuneration, which, in turn, assists in promoting transparency and disclosure. However, Allegrini and Greco (2013) reveal no relation between the two.

2.2.5.2 Nomination & Governance Committee Chairman's Experience

The NGC is a committee, which is responsible for the appropriate selection of potential members of the board and for the assessment of existing members of the board. The head of this committee is the chair of NGC. The responsibilities of this committee are also about the selection of CEO for the firm who is further responsible for operations of the firm (Saat, 2008). When Nomination & Governance Committee Chairperson (NGCC) is competent and experienced then it is expected that NGC will perform more effectively in its operations. The HR, monitoring and experiential of NGCC make NGCC able to ensure the proper appointment and appraisal of board members, to provide the basis for solving conflicts between shareholders and reducing agency problem in an appropriate way (McNulty et al., 2011). This also assist the NGC to evaluate adequately a potential board member or management member.

2.2.5.3 Nomination and Governance Committee Independence

The composition of the board of directors, because it is an internal control mechanism intended to make decisions on behalf of the shareholders and to ensure that management behaviour, is in accordance with the interests of the owners. Board composition deals specifically with the ratio of executive and non-executive directors on a company's board.

A higher proportion of non-executive directors could have a positive influence on the level of disclosure (Haniffa & Cooke, 2005). However, the empirical results are mixed. Existing evidence indicates that voluntary disclosure increases with the number/proportion of non-executive/independent directors on the board (Chen and Jaggi, 2000; BabíoArcay and Muiño Vázquez, 2005; Cheng and Courtenay, 2006; Lim, Kin, and Yin, 2007 & Donnelly and Mulcahy, 2008). However, there is also no evidence of a significant positive relationship between the proportion of independent directors on the board and the degree of voluntary disclosure (Ho & Wong, 2001; Haniffa & Cooke, 2002) and even of an increase in non-executive directors reducing voluntary disclosure (Eng & Mak, 2003; Barako, 2006).

Independent directors can advise on strategic decisions and improve monitoring of managers' decisions and activities, reducing opportunism (Leftwich, Watts & Zimmerman, 1981; Fama & Jensen, 1983; Chen & Jaggi, 2000; Haniffa & Cooke, 2002). Independent directors can be chosen by block holders to represent their interests and can acquire information directly, rather than publicly. External administrators can also replace oversight with public disclosure (Eng and Mak, 2003). However, insufficient knowledge of the business is pointed out as a disadvantage when the number of independent directors is excessive, since it would reduce the effectiveness of the board (Patton & Baker, 1987). The proportion of independent directors on the board is considered a measure of the composition of the board.

2.2.5.4 Remuneration Committee

The rise in top executive pay at several UK corporations in the late 1980s drew considerable public attention. The relationship between the chief executive officer's (CEO) compensation and the company's success came under closer scrutiny as a result from a wide range of stakeholders, including academics, lawmakers, and the media. This was frequently found to be lacking or, at best, fleeting. As a result, focus shifted to the process used to calculate the CEO's compensation. Particularly, it was believed that the CEO should not have the authority to determine their own level of compensation. This idea was clearly expressed in the Institutional Shareholders' Committee's declaration on appropriate practices for business directors (1991). The pertinent proposal with regard to compensation was that the Board create a Compensation Committee made up wholly or primarily of non-executive directors (and in the latter case chaired by a non-executive director). Executive directors shouldn't have any say in the remuneration plans they get. The Annual Report ought to provide information on the Compensation Committee's membership. These recommendations were supported by the Cadbury Report on Corporate Governance (1992), which placed special focus on the fact that senior directors shouldn't be involved in decisions affecting their own compensation. These claims and studies could be interpreted as a blatant effort to bring US best practices into the boardrooms of British businesses. The Securities and Exchange Commission (SEC) mandated in 1978 that information about the membership, meeting schedule, and objectives of three board subcommittees, namely the Audit Committee, Compensation Committee, and Nominating Committee, be included in proxy statements. None of these committees were mandated, despite the fact that the New York Stock Exchange began requiring an independent Audit Committee in 1978. (NYSE). There is no denying, however, that when such committees did not already exist, the vast majority of businesses established them as a result of the reporting obligations. According to Braiotta and Sommer (1987), around 86% of the top 1,000 US businesses had pay committees in 1985. Harrison (1987) outlined the benefits to directors who use such subcommittees in terms of lowering their responsibility to shareholder lawsuits. By 1990, major US firms as well as those in Britain almost always had compensation committees.

The multinational corporations in Nigeria have incorporated these committees into their reports, and later other big Nigerian firms started to do the same. Nigeria adopted the corporate governance code in 2003 in response to the financial crisis of the late 1990s, and it recognizes a number of committees, including the pay committee. Nowadays, it is customary to see mention of the "Remuneration Committee's" activities in a company's annual report. This preferred title might have been chosen in order to prevent any associations with compensation for work-related injuries, etc. Although the title is different, the objective is still the same: to control how much the company's senior executives are paid.

2.2.5.5 Remuneration Committee Chairman's Experience

Agency problems may arise if the members of the remuneration committee are biased when designing a remuneration package for senior executives and serving the principal's interests (shareholders). Thus, the need to have the remuneration committee chairman that is experienced in the firm and experience in labour and compensation issues, the vast experience of the committee chairman will guide the committee in determining remuneration packages that are fair to both the shareholders and the management. This will help the firm because the management will be fairly compensated and this will motivate them to bring to use their IC capabilities to the benefit of the firm which will increase firm performance and by extension shareholders return.

2.2.5.6 Remuneration Committee Chairman's Expertise

The performance and effectiveness of the committee are largely reliant on characteristics and expertise of chairperson of that committee. It means that chairperson of remuneration having required expertise regarding various compensation packages is expected to have better capability to carry on functions and proper operations of the committee having in mind that the committee decision on compensation will have a direct effect on the performance of the firm. This study believes that the performance and recommendations of remuneration committee chair that is expert in financial and/or human resources will be different from a remuneration committee chairperson without such expertise. The expertise of the committee chairperson will guide him/her on the appropriate compensation packages for senior executive mangers that will positively motivate them towards performing intellectually better for the firm.

2.2.5.7 Remuneration Committee Independence

Remuneration committees are responsible for board decisions on the so-called 'Fat Cat Payments' for directors and managers at the upper echelon of businesses (Anderson & Bizjak, 2003; Conyon, Gregg, & Machin, 1995; Conyon & He, 2004). The most common forms of these payments are salary, bonus, options, commission, and profit-sharing. Herdan and Szczepańska (2011) argue that remuneration committees also consider the qualifications, expertise, and past achievements of the directors when designing remuneration packages along with the financial constraints of a firm. The committee deals with many sensitive issues while designing a remuneration package for senior executives, which ultimately affects the firm performance as poor (well) performing managers who are (not) compensated generously may (not) stay in the firm which will ultimately affects the IC of the firm and firm performance. Zhu, Tian, and Ma (2009) suggest that remuneration committee independence has a strong relationship with executive remuneration and firm performance. The presence of non-executive members on the remuneration committee can decrease agency problems and, in turn, increase firm IC and financial performance by working in the best interest of shareholders for adding value to the company, which ultimately reduces the firm's chances of default.

2.2.5.8 Audit Committee Attributes

Audit committees are a critical component of corporate governance that provide oversight and assurance regarding a company's financial reporting, internal controls, and risk management. The popularity of this concept in literature can be traced to the American Institute of Certified Public Accountants (AICPA), who in 1967 recommended the establishment of audit committee boards in order to assist with reporting process. More so, bodies such as the Tread Way Commission, Blue Ribbon committees, US Security and Exchange Commission, cannot be left out in the discourse on the development of audit committees (Blue Ribbon Committee 1999, Treadway Commission 1987). According to Abbott, Parker and Peters (2002) and Lin, Li and Yang (2006), the recommendations of the Blue Ribbon Committee of 1999 was aimed at strengthening the effectiveness of audit committees (AC) as it relates to quality reporting and since then, studies have emerged that try to investigate the effectiveness of audit committees. Enofe, Aronmwan and Abadua (2013) also noted that the historic development of audit committees can be seen from two broad periods: a period of obligatory establishment of audit committees (before 1978) and a period of mandatory establishment (after 1978).

Audit committee can be described as a corporate governance mechanism (Li et al. 2012), an arm of the board of directors (Dhaliwa et al. 2010), saddled with responsibility of ensuring quality reporting by performing oversight functions of the activities of management and external auditors (Enofe et al. 2013) as well as help mitigate the agency problem between management and owners. Nnadi (1999) describes it as (audit committee) a company committee that should foster the independence of the external auditor. Thus, the presence of the audit committee should engender quality and independent reporting. The Sarbanes Oxley Act of 2002 defines it as a committee established by the board of directors to oversee the processes involved in accounting and auditing of company financials. According to Li et al. (2012), the audit committee can be used as an effective tool to ensure quality-reporting process. However, if this must be achieved, audit committees must possess some characteristics such as independence, frequent meetings, and financial expert as resource persons (Li et al. 2012).

According to the Institute of Chartered Accountants in England and Wales (ICAEW), (2022) described the attributes of audit committee to include among others: intellectual curiosity with professional skepticism, courageous in making tough decisions, balanced and ethical approach to whistleblowing, oversight of key risks, excellent relationship builders, ability to build and develop a strong team, good listening skill, own the agenda and ability to challenge the external auditors. Each of these actions will allow the audit committee to operate effectively. Having an effective audit committee is essential for good corporate governance as being qualities indicative of an effective committee. The attributes of an effective audit committee can vary based on industry, company size, and regulatory requirements, but generally, there are several key attributes that are important for a successful audit committee:

2.2.5.9 Audit Committee Chairman's Experience

An AC is a board committee that is a key mechanism for firm to achieve high quality of "financial reporting" and CG so, the effectiveness and expertise of AC and its chair have great importance in this regard (Cohen et al., 2018; Ghafran and O'Sullivan, 2017; Owolabi and Dada, 2011). "Audit committee chair (ACC)" is known as the "Chief Executive Officer" of the audit committee who is the head of the committee and is the fundamental body for the associations of the audit committee with internal and external auditors, the board and the CFO. The success or failure of financial reporting mechanism is largely reliant on the chair, as it has more responsibility than other members of the committee to ensure the quality of “financial reporting” and the effectiveness of AC’s operations (Schmidt and Wilkins, 2013; Tanyi and Smith, 2014). AC always needs an expert and experienced chair for its proper functioning and effectiveness who has competencies and knowledge to derive the operations and functions of the committee and ensure the quality of “financial reporting” and performance. Furthermore, ACC having experience is more able to ensure the rightness of financial reporting by the committee due to having longer tenure spent with the firm and having more firm-specific knowledge and experience (Ghafran and O’Sullivan, 2017; Ghafran and Yasmin, 2018; Schmidt and Wilkins, 2013; Chiru and Gherghina, 2019). However, noticeable negligence can be seen in past literature about ACC and its expertise.

2.2.5.10 Audit Committee Independence

Audit committee independence is first defined, according to NCCG (2018), as the proportion of independent non-executive directors over the total number of directors sitting in an AC. The term “independent director” is usually used interchangeably with the term “non-executive director” and what is not correct because not all non-executive directors are independent.

The board should identify in the annual report each non-executive director it considers to be independent. The board should determine whether the director is independent in character and judgement and whether there are relationships or circumstances which are likely to affect, or could appear to affect the director’s judgement. The board should state its reasons if it determines that a director is independent, notwithstanding the existence of relationships or circumstances which may appear relevant to its determination, including if the director:

i. has been an employee of the company or group within the last five years,

ii. has, or has had within the last three years a material business relationship with the company either directly, or as a partner, shareholder, director or senior employee of a body that has such a relationship with the company,

iii. has received or receives additional remuneration from the company apart from a director's fee, participates in the company's share option or a performance related pay scheme, or is a member of the company's pension scheme,

iv. has close family ties with any of the company's advisers, directors or senior employees,

v. holds cross-directorships or has significant links with other directors through involvement in other companies or bodies,

vi. represents a significant shareholder or

vii. has served on the board for more than nine years from the date of their first election.

As to the number of independent directors sitting in audit committees of Nigerian companies, the NCCG (2018) requires that all members of the committee be non-executive Directors with majority of them being Independent.

An important issue to consider when evaluating the independence of any board or committee is the endogeneity of board/committee composition. Hermalin and Weisbach (1998) suggest that poor performance leads to increases in board independence. In a cross-section, this effect is likely to make firms with independent directors look worse, because this effect leads to more independent directors on firms with historically poor performance. Both Hermalin and Weisbach (1991) and Bhagat and Black (2000) have attempted to correct this effect using simultaneous-equation methods. In particular, these papers lagged performance as an instrument for current performance.

The independence of AC has its benefits but also risks. On one hand, it is argued that having an independent AC within the corporation facilitates more effective monitoring of financial reporting (Beasley, 1996; Carcello and Neal, 2003) and external audits (Abbott et al., 2002; 2004; Carcello and Neal, 2003). On the other hand, being completely separate from management could mean that the independent AC members see less industry issues and are more likely to side with the auditor requiring less negotiations and deliberations and thus, fewer meetings. This can have negative impact on the level of monitoring (Sharma et al., 2009).

However, Sharma et al. (2009) show that some companies appoint an inside director as the AC chairperson, which consequently leads to less AC independence. Cotter and Silvester (2003) conclude that independent directors on audit committees reduce the monitoring by debt holders when leverage is low. The result is that executives on the AC lead to increased monitoring by debtholders. Additionally, Beasley and Salterio (2001) find that a board chairperson or CEO on the AC reduces the overall effectiveness of the AC.

The independence of the AC may also be influenced by other governance mechanisms. For example, institutional ownership also forms part of the external governance structure but their influence is often exerted internally. Klein (2002) shows a negative association between AC independence and the presence of alternative monitoring mechanisms, such as institutional ownership, although her results are inconclusive.

In summary, the AC independence research suggests the percentage of independent directors, grey-directors, AC chairperson’s independence, presence of the CEO and institutional ownership may all have an impact on intellectual capital disclosure via the effectiveness of the AC.

2.2.6 Ownership Structure

The concept of ownership structure can be defined in two dimensions: ownership concentration and ownership composition. Where the first refers to the share of the largest owner and is influenced by absolute risk and tracking costs, while the latter is related to the identity of the majority shareholder. Entrepreneurs are people who share two formal rights: the right to control the business and the right to appropriate the business profits, or residual profits.

The importance of the ownership structure is evident in the fact that corporate governance and the ownership structure of companies are currently characterized by processes of change as the world's economies become increasingly integrated on the global scale. Ownership structures are also of great importance in corporate governance, as they affect managers' incentives and thus the efficiency of companies. The increased volatility in corporate ownership portfolios seen in recent years has led to a renewed interest in ownership structures, particularly with respect to multinational companies. As the world's economies become increasingly and globally integrated, these questions will become more important and affect our understanding of the interlocking systems of corporate relationships, through which formal and invisible networks of power are established. Ownership structure decisions also affect the capital base of the business and the decision to opt for equity or debt financing.

Ownership structure is a major determinant of the financial success of any business, as it informs how the organization is legally constituted. Entrepreneurs must decide which form of ownership will provide the greatest benefits, as the form chosen affects the profit, risk or value of the business; as it will influence the processes of decision-making, control, acquisition and investment of funds.

According to Demsetz (2001), there is no well-established tradition of selecting specific measures for the analysis of the performance relationship of the ownership structure. The measure adopted by different researchers is based on the availability of information and the adequacy of the method to the research questions. Most studies that have examined the effect of ownership structure on performance have used the Herfindahl index or the participation of several large investors, usually the top five shareholders (Demsetz 2001). Most studies in developing countries, where data are limited, have used majority ownership extensively (Kapelyushnikov, 2000). Ownership structure could be further measured by calculating the percentage of common stock ownership for each particular form of ownership, as will be used in this study to determine the ownership structures of different companies.

2.2.6.1 Institutional Ownership

Institutional ownership (i.e. the fraction of a firm's shares held by institutional investors). Specifically, institutional ownership is the consolidated holdings of institutional investors expressed as a percentage of the total number of shares outstanding. Shareholders provide capital to the company and decide on its development. Since institutional investors, defined as entities which collect and invest the savings of individuals and enterprise, are growing globally in terms of the size of assets under management and the number of portfolio companies, their impact on company strategy, disclosure and performance is expected to increase accordingly (Çelik and Isaksson, 2014, Schmalz, 2021). While institutional investors are recognized as effective watchdogs that improve monitoring and increase company performance (Nagel et al., 2015), their presence in the ownership structure may also have a positive impact on ICD (Dyck et al., 2019). Given their weight in the companies' capital stock and their capacity to engage with companies, they are increasingly viewed as catalysts driving corporate transparency regarding ICD (García-Sánchez et al., 2020).

Potentially, ICD should be useful for institutional investors as it decreases the information asymmetry, helping them to better project the future earnings and cash flow (Rehman et al., 2020). As noted by Coffee (2021) ICD overlaps substantially with systematic risk, which is the primary concern of diversified investors. Analyses conducted in Canada (Berthelot et al., 2012) and in Spain (Bona-Sánchez et al., 2017) suggest that ICD gives a company a market premium, which should be of great interest to institutional investors who are looking for a high return on investment. Other research (Jahn & Brühl, 2019) shows that even disclosure of moderately negative IC information has a positive effect on trustworthiness. However, an unsatisfactory ICD is more impactful than good one.

In spite of this, the empirical evidence on the institutional investors' influence on ICD remains mixed. The presence of long-term institutional investors is generally believed to have positive impact on IC engagement. Particularly, the research conducted in India, Bangladesh and Pakistan, on a sample of manufacturing companies listed on the Indonesian Stock Exchange between 2010 and 2015 (Nurleni et al., 2018) and conducted in China (Shahab & Ye, 2018) confirmed a positive association.

Other studies, however, show either no link or negative relationship between ownership by institutional investors and non-financial disclosure. While research from Saudi Arabia (Habbash, 2010), India (Nair et al., 2019), Indonesia (Machdar, 2019) and USA (Rupley et al., 2012) show insignificant association between the presence of institutional investors and ICD, a negative relationship between these two variables is observed in Jordan (Abu Qa'dan & Suwaidan, 2019), Spain (García-Meca & Pucheta-Martínez, 2018) and Egypt (El-Bassiouny & El-Bassiouny, 2019).

2.2.7 Firm's Disclosure Practices as an Explanatory Variable

A firm's disclosure practices refer to how a company communicates information to its stakeholders, including investors, regulators, customers, employees, and the general public. These practices involve the process of sharing relevant and accurate information about the company's financial performance, operations, risks, strategies, and other material matters. Effective disclosure practices contribute to transparency, accountability, and investor confidence. Disclosure is an important component of corporate governance since it allows all stakeholders of firms to monitor performance of the firm. 'Good practices in corporate governance disclosure', a guidance issued by OECD (2006) also states that all material issues related to the corporate governance of a firm should be disclosed in a timely manner. Hence, disclosures have to be clear, concise and precise and governed by the substance over form principle. An effective system of governance practices should ensure compliance with applicable laws, standards, rules, rights, and duties of all interested parties, and further, should allow companies to avoid costly litigation, including those costs related to shareholder claims and other disputes resulting from fraud, conflicts of interest, corruption and bribery, and insider trading. According to Ho, et al., (2008), exhaustive disclosure by firms enabled investors to make better investment decisions. Disclosure by firms can be categorized as mandatory disclosure and voluntary disclosure. Voluntary disclosure, also defined as information in excess of mandatory disclosure, has been receiving an increasing amount of attention from researchers in recent corporate governance and disclosure studies. Because of the inadequacy of mandatory disclosure by firms, the proactive action by firms such as voluntary disclosure provides investors with the necessary information to make more informed decisions (Madhani, 2007).

Corporate disclosure can be defined as the communication of information by people inside the public firms towards people outside. The main aim of corporate disclosure is to communicate firm performance and governance to outside investors (Healy & Palepu, 2001). This communication is not only called for by shareholders and investors to analyze the relevance of their investments, but also by the other stakeholders, particularly for information about corporate social and environmental policies. Disclosure takes different forms. The first one is financial reporting, essentially financial statements whose contents are defined by accounting standards (for instance the International Financial Reporting Standards). As compliance with good practice in corporate governance is now required, reporting also concerns governance (for instance, the "comply or explain" principle has been enforced since 2008 in the European Union). Reporting must respect specific rules, even specific formats, restricting the discretion of managers, and allowing stakeholders a better understanding of information. Besides reporting, managers also communicate information in a less formal way, for instance by press conferences, by announcement on Internet sites and so on.

In studying the effect of corporate governance mechanisms on ICD**,** it makes sense to consider disclosure practices as an independent variable. Disclosure practices reflect how transparent a firm is about its operations, governance, and financial position. Firms that actively disclose corporate governance-related information are more likely to extend their transparency to IC disclosure, making disclosure practices a key factor in this relationship.

2.2.7.1 Disclosure as a Reflection of Corporate Transparency

One of the main reasons why disclosure practices should be considered is that they serve as a measure of corporate transparency**.** Good corporate governance is built on the foundation of openness and accountability, and firms that prioritize these principles often go beyond mandatory financial reporting to share additional insights with stakeholders. IC comprising human capital, structural capital, and relational capital is an essential driver of value, yet it is not always explicitly captured in traditional financial statements**.** Therefore, companies with strong disclosure practices are more likely to provide voluntary disclosures about their intangible assets**,** helping investors and stakeholders better understand their competitive advantages.

2.2.7.2 The Role of Disclosure in Regulatory Compliance and Voluntary Reporting

In Nigeria, listed firms must adhere to corporate governance codes and financial disclosure regulations. However, while certain disclosures are mandatory, firms often differ in how much additional information they choose to share voluntarily. Some companies only meet the minimum legal requirements, while others go further by publishing detailed governance reports, internal audit disclosures, and executive compensation policies. The firms that voluntarily disclose more governance-related information are also the ones most likely to be transparent about IC. This suggests that disclosure practices can act as a proxy for a company's overall commitment to transparency, making it a relevant independent variable in this study.

2.2.7.3 Disclosure as a Tool for Stakeholder Engagement

Another important reason for using disclosure practices as an independent variable is their role in stakeholder communication. Investors, regulators, and analysts increasingly demand more non-financial information, including IC details. Firms that have already developed a culture of open disclosure such as publishing their corporate governance guidelines, audit committee reports, and board resolutions are more likely to extend this approach to ICD. In contrast, companies that are reluctant to disclose governance-related information may also be less willing to provide details on IC. This pattern suggests that corporate governance disclosure and

ICD are closely linked, making disclosure practices a valuable factor to study in this relationship.

2.2.7.4 Theoretical Justification: Signalling Theory and Legitimacy Theory

From a signalling theory perspective, disclosure practices help firms differentiate themselves from competitors. High-performing companies tend to voluntarily share more information to signal their strength and reliability to investors. If a firm is already disclosing detailed governance-related information, it is likely that it will also disclose IC details to reinforce its market credibility**.**

Similarly, legitimacy theory suggests that firms disclose information to align with societal expectations and maintain their corporate reputation. In today's business environment, transparency is a crucial expectation from stakeholders. Companies that actively share governance-related disclosures do so partly to maintain their legitimacy and public trust**.** Since IC is a key intangible asset, firms that value legitimacy and transparency are more likely to disclose information about their human capital, patents, R&D investments, and external relationships. This reinforces why disclosure practices can serve as a strong predictor of ICD.

2.2.8 Disclosure Practices in Nigeria Before the Implementation of the NCGC 2018

Before the implementation of the 2018 Nigerian Code of Corporate Governance (NCCG), corporate disclosure practices in Nigeria were characterized by limited uniformity and weak enforcement of regulatory frameworks. Disclosure practices were primarily guided by earlier codes, such as the 2003 Securities and Exchange Commission (SEC) Code of Corporate Governance and the 2011 SEC Code, both of which were largely voluntary in nature (Okoye, et. al., 2016; Adegbite, Amaeshi, & Nakajima, 2013). These codes encouraged firms to disclose financial and non-financial information, including IC, but adherence was inconsistent due to insufficient regulatory oversight and low corporate awareness of the strategic value of ICD. Most companies provided only the legally mandated minimum, focusing primarily on financial performance, with limited attention to non-financial or intangible assets (Ofo, 2019). Factors such as inadequate investor demand for transparency, low governance maturity, and a lack of standardized reporting frameworks further hindered the advancement of ICD during this period. Disclosures, when made, were often qualitative and lacked the depth needed to convey the true value of IC.

2.2.9 Disclosure Practices in Nigeria After the Implementation of the NCGC 2018

The adoption of the 2018 Nigerian Code of Corporate Governance represented a pivotal shift in disclosure practices, introducing stricter requirements for transparency and accountability. Unlike earlier codes, the 2018 NCCG implemented a "comply or explain" framework, mandating adherence to its principles or justification for deviations, thereby strengthening enforcement and ensuring more robust corporate governance Financial Reporting Council of Nigeria FRCN, (2018). The code emphasized the disclosure of both financial and non-financial information, including IC, aligning with global best practices to promote stakeholder confidence and corporate sustainability. As a result, there has been a significant increase in the quality and scope of ICD among listed firms in Nigeria, with many companies adopting standardized, quantifiable reporting formats (Ezeagba, 2020). IC disclosures now highlight critical intangible assets such as human capital, organizational processes, and customer relationships, reflecting a broader acknowledgment of their role in enhancing firm value. Moreover, heightened awareness among investors and stakeholders, coupled with stronger regulatory enforcement, has driven firms to prioritize compliance, resulting in more transparent and relevant disclosures in line with the 2018 NCCG (Uwuigbe, Daramola, & Anjolaoluwa, 2021).

2.2.10 Nigerian Corporate Governance Index

The Nigerian Corporate Governance Index reflects the importance of corporate governance (CG) in fostering firm survival, performance, and sustainability within Nigeria's evolving corporate landscape. Corporate governance plays a pivotal role in attracting foreign investments, as it provides assurance to investors about the integrity of the legal system and its capacity to protect minority shareholders' interests. According to Ahunwan (2002), Nigeria faces increasing international economic pressure to adopt responsible corporate governance systems alongside economic liberalization and deregulation to boost investor confidence. Okike (2007) emphasizes that any corporate governance framework in Nigeria must reflect the country's unique socio-political and economic realities while simultaneously reassuring current and potential shareholders. Yakasai (2001) highlights that corporate governance practices in Nigeria differ from those in developed economies due to differences in corporate ownership structures and governance processes, particularly in private companies.

To address these governance challenges, Nigeria introduced a new Code of Corporate Governance in 2019, applicable to private companies, public companies, and not-for-profit entities. The 2019 Code comprises seven parts and 28 principles, covering critical governance areas such as the board of directors, audit practices, shareholder relations, business ethics, sustainability, transparency, and definitions. The Code adopts a principle-based approach, requiring companies to "apply and explain" their compliance. This method encourages companies to implement sound corporate governance practices while providing explanations for deviations, thereby promoting transparency and accountability. The Financial Reporting

Council of Nigeria oversees the implementation of the Code in collaboration with sector-specific regulators, who have the authority to impose sanctions for violations based on applicable laws and regulations.

Additionally, the Corporate Governance Rating System (CGRS), established in 2013, serves as a key initiative for assessing corporate governance standards in Nigeria. Developed through a partnership between the Nigerian Stock Exchange (NSE) and the Convention on Business Integrity (CBi), the CGRS rates companies listed on the NSE's Main and Premium Boards. The rating system evaluates companies based on their corporate integrity, compliance, fiduciary responsibilities, and reputation. Funded by the Siemens Initiative, with international oversight from the Humboldt Viadrina School of Governance, the CGRS aims to enhance transparency and corporate accountability. Together, the 2019 Code and the CGRS reflect Nigeria's commitment to strengthening corporate governance practices and building investor confidence in its business environment.

2.2.11 Concept of Intellectual Capital Disclosure

The profitability and efficiency of companies are mainly impacted by one of the best resources in terms of IC. Bontis (2000) recalls that intellectual capital can be examined from three components (human capital, structural capital and customer capital or relational capital). According to Bontis, human capital and customer capital are important factors in the way companies are managed, and this structural capital has a positive influence on business performance.

Intellectual capital information is important to stakeholders in their decision making. Jensen and Meckling (1976) argue that more disclosure reduces the uncertainty faced by investors and thus lowers a company's cost of capital. Therefore, managers must be willing to disclose intellectual capital information to increase the value of the company by providing investors with a better assessment of the company's financial condition and to help reduce the volatility of market returns values.

In Nigeria, maximizing the value of the owners' investment is seen as the main objective of business. In line with global trends and investor demand for non-financial information, corporate governance reports are becoming one of the essential elements of annual reports. The provision of the Law of Companies and Related Matters (CAMA, 1990), the Law of Companies and other Financial Institutions (BOFIA, 1991), the Investment and Securities Law (ISA) of 1999, the Law of the Insurance Corporation of Nigerian Deposits Act (NDIC) Act 1998, the Central Bank of Nigeria (CBN) Act 1991, the various prudential guidelines issued by the CBN, the requirement of listing on the Nigerian Stock Exchange (NSE) and the Regulations of the Securities and Exchange Commission (SEC) and the SEC Corporate Governance Code 2003 and the New Governance Code (2018) has been established in Nigeria to address corporate governance reporting.

The role of disclosure in the capital markets is crucial. Information and incentive problems hinder the efficient allocation of resources in a capital market economy (Healy & Palepu, 2001). Jensen and Meckling (1976) predict that conflicts should arise when there is incomplete and asymmetric information between principal and agent in a firm because they have conflicting interests. One possible solution to information asymmetries is information disclosure regulations. Voluntary disclosure and corporate governance are seen as complementary mechanisms to mitigate information asymmetries.

The purpose of financial statements is to provide information about the financial condition, performance, and changes in financial condition of a company. The information in this report is useful to a wide range of users in their economic decision making (Tankiso, 2008). The

International Accounting Standards Board (IASB) of 2007 states that the financial statement consisting of the statement of financial position, the statement of comprehensive income, the statement of cash flows, the statement of changes in shareholders' equity, the directors' report, the auditors' report and the notes to the financial statements generally meet the needs of users. However, information related to IC reporting disclosure, among others, has become of great importance to a wide range of users and should be reported in a company's annual report. The objective of corporate governance reporting is based on the principle of fair treatment of a company's shareholders, full disclosure of the IC statement in annual reports, provision of reliable and timely information on corporate performance and ownership, and the holding of annual general assemblies and/or shareholders meetings (IOD, 2002).

The corporate governance statements published in the companies' annual reports must reflect the actual situation of the company during a certain period and the directors of the company must undertake to respect the directors' report on the accuracy of the information it contains. In addition, the IASB 2007 stipulates that the financial information and aggregate information provided in a company's annual report must meet certain characteristics. These characteristics are that:

i. The information disclosed in the annual reports must be easy to understand.
ii. The information disclosed must be generally accepted and free from bias or manipulation.
iii. The information must be relevant and must be published in time to be used by decision makers.
iv. The information must be reliable (i.e. free from errors) and easily accessible to users (IASB, 2007).

The purpose of disclosure is to promote transparency and accountability (IOD, 2002), providing information that meets the needs of a diverse set of users, such as shareholders, investors, security analysts, managers, employees, lenders and other suppliers, customers, and government regulators or agencies. The IASB (2007) states that the directors and officers of a company act in good faith and honestly if they provide users with the state of affairs and information of a company that allows users to make informed decisions. Therefore, it is evident from the above that these requirements are relevant to corporate governance disclosures.

From the above, the disclosure of intellectual capital can be expressed as the provision of information in the company's annual reports on skills, knowledge, information, experience, problem-solving ability and policies that show the business as a whole and include capital human, structural capital and customer/relationship capital.

2.2.11.1 Human Capital (HC)

HC is the competence and creativity of employees that can be further fostered by investing more in their training programs. Human capital is the experience and knowledge of employees that increase the efficiency of organizations. More efficient employees mean a more efficient organization to drive Value Added (VA) efficiency.

HC is the economic value of a worker's experiences and skills. It is the dimension of intellectual capital that deals with knowledge and human experience, which is based on other elements and which will influence the value of a company by affecting the other elements (Montequín, et. al., 2006). HC represents the human factor in an organization where by the combination of intelligence, skills, knowledge, abilities and experience gives the organization its distinctive character whose traits contribute to production and profitability, thus improving organizational performance. Sharing human skills and experience with other members of the organization is the best way to improve the overall capabilities of the organization to create value for the organization. HC cover statements about employee qualifications, management using the human resource development task management system, and employee satisfaction (Laing, Dunn, & Lucas, 2010).

2.2.11.2 Structural Capital (SC)

SC is defined as the set of knowledge that remains in the company at the end of the working day. It is the set of decision-making systems, procedures, databases, copyrights, patents, structural procedures, rules and policies that help plan, organize and interconnect organizational objectives and thus provide a better way to create value for the organization. SCs include all non-human knowledge stores in organizations, including databases, flow charts, processed manuals, strategies, routines, and anything whose value to the business exceeds its material value (Bontis, 1999). SC is that capital that provides the supporting infrastructure to the organization and that, in turn, increases the performance of the employees (Sveiby, 1998).

Structural capital is another important determinant of IC and it is made up of all non-human assets. It recognizes as all the systems, procedures, databases, copyrights, patents, structural procedures, rules and policies that are important for decision making as argued by Bontis (2000).

Intellectual capital is a resource created (human capital), purchased (structural capital) or maintained (relational capital) by a company, which has no material form; these resources, associated with the material and financial assets of the company, contribute to the creation of added value. RC covers statements about customer mix, the company's efforts to develop customer relationships, and customer satisfaction and retention (repeat business and long-term relationships). Intellectual capital is paramount for business-related organizational activities, and therefore cannot be overstated in many ways, such as: It helps the organization achieve its goals in a short period of time.

It helps the organization to obtain a better service from its employee who feels integrated into the organization's thanks to motivation, training and skills acquired in the performance of their duties. It makes the working environment clearer and easier through the established organizational structure for a better working condition. It increases and improves a better understanding between the organization and other interested parties. It leads the organization to innovation and to the environment in which it will perform better by creating more value (Ahmed, et. al, 2016).

2.2.11.3 Relational Capital (RC)

RC creates a relationship between companies and their customers where information is effectively captured, retained, refined and reused to help make decisions across the organization. These decisions would contribute to improving the quality of products and services; prevent customers from abandoning a business relationship. A company's relationship with its stakeholders is also best defined by customer fairness. Customer capital not only increases the satisfaction level of the stakeholders, but also translates into strong stakeholder loyalty towards the company (Kalkan, 2014). According to Nuryaman (2015), customer equity helps companies maintain good relationships with their external and internal stakeholders, including customers, consumers, government, employees, creditors, suppliers, and other parties. RC is the part of human and/ or structural capital that deals with the company's relations with other stakeholders (investors, creditors, customers, suppliers, etc.).

2.2.11.4 Intellectual Capital Disclosure in Developed Countries

ICD has been the subject of numerous studies in developed countries, revealing diverse trends and practices across different regions. Vandermaele et al. (2005) conducted a comparative study of ICD practices in the Netherlands, Sweden, and the United Kingdom, documenting a steady increase in disclosure over a three-year period from 1998 to 2000. This growth indicates a rising awareness among firms about the importance of IC as a driver of organizational performance and value creation. In contrast, Guthrie et al. (2007), in their study of IC reporting in Australia and Hong Kong, found relatively low levels of ICD in annual reports, suggesting that despite global advancements, some regions lag in recognizing the significance of disclosing intangible assets.

In the United Kingdom, Unerman et al. (2007) observed substantial ICD even in industries where IC is not traditionally considered a critical value driver, such as real estate, retail, and utilities. This finding highlights the UK's progressive approach to corporate reporting, where firms increasingly acknowledge the role of IC in achieving competitive advantage, regardless of industry-specific expectations. This broad adoption reflects the maturity of the UK's corporate governance framework and its alignment with global best practices in transparency and accountability.

In stark contrast, IC disclosure remains an emerging and largely academic concept in Canada. Cumby et al. (2001) noted that only a small fraction of Canadian corporations 68 out of approximately 10,000 used terms related to IC in their annual reports. This lack of discourse suggests that Canadian firms have not yet embraced ICD as a strategic tool for enhancing investor confidence and stakeholder engagement. Compared to Scandinavian countries, which are recognized for their advanced ICD practices, Canada appears to lag significantly.

Scandinavian firms, particularly in Sweden and Denmark, have demonstrated a strong commitment to integrating ICD into their reporting frameworks, often linking it with sustainability and corporate responsibility initiatives.

The limited adoption of ICD in countries like Canada underscores the importance of fostering awareness and building regulatory frameworks that encourage firms to disclose intangible assets such as human, structural, and relational capital. While some countries have made significant strides, the uneven global adoption of ICD practices highlights the need for international collaboration, harmonization of disclosure standards, and the development of sector-specific guidelines. Such efforts can ensure that IC is effectively reported as a vital component of corporate value creation, fostering greater transparency and accountability in the global business landscape.

2.2.11.5 Intellectual Capital Disclosure in Developing Countries

While IC has garnered increasing research attention globally (Khan & Ali, 2010), there remains a significant gap in the literature concerning ICD in developing countries. Existing studies suggest that although ICD is gaining traction, its adoption and implementation are still at a nascent stage in many developing economies. For instance, Abeysekera and Guthrie (2005) analyzed the annual reports of the top 30 listed firms in Sri Lanka during the 1998/1999 and 1999/2000 financial years. Their findings revealed a gradual increase in ICD, driven by growing recognition of IC as a critical component of corporate value. This improvement, however, was largely qualitative, with disclosures often lacking the depth and standardization seen in developed economies.

In sub-Saharan Africa, the trend toward ICD is also emerging, particularly in specific industries. A study focusing on the banking sector in Malawi highlighted a substantial increase in IC disclosure over time, attributed to the sector's need to attract foreign investments and enhance transparency. However, these disclosures were often limited to basic indicators, such as employee skills and training, while more sophisticated components of IC, such as structural and relational capital, were rarely addressed. This indicates that while progress is being made, ICD practices in Malawi and similar contexts remain rudimentary compared to global standards.

The limited adoption of ICD in developing countries can be attributed to several factors, including weak regulatory frameworks, insufficient awareness of the value of intangible assets, and a lack of standardized reporting guidelines. Many firms in these regions focus primarily on mandatory financial disclosures, leaving ICD as a secondary or voluntary practice. Moreover, the cultural and economic diversity within developing countries often results in varied levels of ICD adoption, further complicating efforts to establish a consistent framework for disclosure.

Despite these challenges, there are promising signs of progress. For example, countries such as India and Malaysia have begun integrating ICD into their corporate governance practices, encouraged by regulatory bodies and increased stakeholder awareness. Additionally, multinational corporations operating in developing regions are gradually influencing local firms to adopt ICD practices as part of their global reporting standards.

In summary, while IC disclosure in developing countries is still in its early stages, there is a clear trend toward increased recognition of its importance. To accelerate this progress, policymakers and regulators in developing countries need to introduce clear guidelines and incentives for ICD, alongside capacity-building initiatives to enhance corporate awareness and reporting capabilities. These efforts will not only improve transparency and investor confidence but also position developing countries to compete more effectively in the global knowledge economy.

2.2.11.6 Intellectual Capital Disclosure in Nigeria

The journey toward ICD in Nigeria began with the release of Statement of Accounting Standard (SAS) No. 22 by the Nigerian Accounting Standards Board (NASB) in June 2006. This marked the first attempt to standardize the reporting of IC in the country. Prior to this, Nigeria lacked a specific accounting standard addressing intangible assets and had not adopted the International Accounting Standard (IAS) 38. However, the adoption of the International Financial Reporting Standards (IFRS) in Nigeria subsequently brought IAS 38 into operational use, providing a framework for recognizing and reporting intangible assets in financial statements. More recently, the new Nigerian Code of Corporate Governance has further emphasized the importance of ICD, requiring comprehensive disclosures in financial reports.

The Code of Corporate Governance mandates that firms provide "full and comprehensive disclosure of all matters material to investors and stakeholders" and ensures proper monitoring of compliance to promote good corporate governance practices. Among the areas highlighted are the voluntary disclosure of IC components, including human, structural, and relational capital. These elements are critical for understanding a firm's intangible asset base and its role in creating long-term value. By encouraging transparency in these areas, the Code seeks to align Nigerian corporate practices with global standards and enhance stakeholder confidence.

Empirical research on ICD in Nigeria remains limited, reflecting the nascent state of the field in the country. Anifowose, Abdulrashid, and Annuar (2017) explored the relationship between IC disclosure and corporate market value (CMV) of firms listed on the Nigerian Stock Exchange (NSE) between 2010 and 2014. Their study found that ICD contributes to market valuation, particularly when influenced by factors such as board diversity. In another study, Anifowose, Abdulrashid, Annuar, and Ibrahim (2018) investigated the value relevance of IC efficiency in the Nigerian economy. They analyzed the relationship between IC efficiency and corporate book value, demonstrating the importance of intangible assets in determining firm value. These studies highlight the growing recognition of IC in Nigeria's corporate landscape, despite the relative scarcity of research.

In summary, IC disclosure in Nigeria is gradually evolving, driven by regulatory developments and an increasing awareness of its strategic importance. The integration of global accounting standards and corporate governance principles has laid the groundwork for improving ICD practices. However, more empirical research and regulatory support are needed to strengthen the adoption and implementation of ICD across Nigerian firms.

2.2.12 Control Variables

Control variables are factors or variables that are held constant or controlled for in statistical analysis when examining the relationship between two or more variables. They are used to isolate the effects of the variables of interest and reduce the potential for confounding or misleading results. In various research contexts, control variables are introduced to ensure that the observed relationship between the independent and dependent variables is not influenced by other factors.

2.2.12.1 Return on Assets (ROA)

Return on Assets (ROA) is a critical financial performance metric that measures how efficiently a company utilizes its assets to generate profits. In the context of ICD, ROA serves as a valuable control variable in analyzing the relationship between corporate governance indices and IC. A high ROA indicates efficient asset utilization, which could enhance a firm's capacity to invest in IC initiatives. Strong financial performance, as reflected by a high ROA, may reinforce the positive relationship between robust corporate governance practices and the development of IC. Conversely, a low ROA, indicative of weaker financial performance, may limit a firm's ability to allocate resources to IC, potentially exacerbating the negative relationship between poor governance practices and IC development.

ROA also has the potential to moderate the relationship between corporate governance and IC. Firms with higher ROA often enjoy greater financial flexibility, enabling them to allocate resources effectively toward IC development and governance enhancement. This could amplify the positive impact of sound governance practices on ICD. On the other hand, firms with lower ROA might face financial constraints that necessitate strategic decisions about resource allocation, potentially influencing the strength of the governance-ICD relationship. In such cases, firms may encounter a balancing act between maintaining financial performance and investing in IC. Effective governance practices can play a crucial role in managing this balance, ensuring that limited resources are utilized efficiently to support both financial performance and IC development. This underscores the importance of ROA as a control variable in studying the interplay between corporate governance and IC.

2.2.12.2 Audit Committee Size

When more AC members are accessible to do their roles, the multiplicity of knowledge and skills becomes evident (Karajeh et al., 2017). They must have a sufficient number of members in order to effectively and efficiently carry out their duty of regulating and overseeing the actions of management (Vicknair, Hickman, & Carnes 1993). The NCCG did not specify the minimum number of non-executive directors (non-executive directors) needed to make up the

Audit Committee Attributes and ICD of Listed Banks in Nigeria AC. It is recommended that the majority of the non-executive directors on the AC be independent. The AC has a lot of responsibility, and without enough personnel and expertise, significant problems like ICD might not receive enough attention. Rather, the financials would take precedence, unintentionally ignoring topics of voluntary disclosure. According to Jesen (1993), businesses with small ACs perform the AC's responsibilities more effectively. Large-size AC is said to require more workers to accomplish the firm's goal. (Bédard, Chtourou, & Courtea, 2004), as well as increased standing and power inside the organisation (Braiotta, 2000). Previous research (Al-Matariet al., 2012; Alqatamin, 2018; Ferchichi & Skanji, 2017; Asiriuwa, Aronmwan, Uwuigbe, & Uwuigbe, 2018), voluntary corporate disclosure (Madi et al., 2014; Jerubetet al., 2017), and ICD (Li et al., 2012) revealed a significant positive relationship. On the contrary, other studies reported insignificant relationship between AC size and financial reporting (Abbott, Parker & Peters, 2004) and earning management (Toh, 2013).

2.2.12.3 Risk Committee Size

There are many schools of thought on the size of risk committees. Raimo et al. (2022), however, use agency theory to argue that a larger board enhances risk disclosure from a strictly board-level viewpoint. According to Grassa et al. (2021), committees with a larger size are better able to monitor, and they extend this argument to the board's subcommittees as well. They contend that a wider range of backgrounds and specialisations is advantageous for committees of greater size. Baldini and Liberatore (2016) acknowledge this school of thought as well and use agency theory to support the effect of risk committee size on risk disclosure. They find a favourable association between risk disclosure and the size of the risk committee, which is supported by empirical data.

2.2.12.4 Firm Size

Firm size, typically measured by market capitalization, total assets, or revenue, is an essential control variable when examining firm value. Larger firms often have greater access to resources, more diversified operations, and might exhibit different risk profiles compared to smaller firms. By including firm size as a control variable, you can better isolate the effects of dividend policy, profitability, leverage, and growth on firm value, while accounting for the potential impact of size.

2.2.12.5 Firm Leverage

Using firm leverage as a control variable in the relationship between corporate governance indices and IC can provide insights into how the level of debt a company carries might influence the strength and nature of this relationship. A positive relationship between corporate governance indices and IC suggests that stronger governance practices lead to enhanced development of IC. When firm leverage is high, the positive impact of corporate governance on IC might be weaker or less pronounced. This could be due to financial constraints caused by high debt levels, which limit the company's ability to invest in IC.

A negative relationship between corporate governance indices and IC implies that weaker governance practices hinder IC development. But if firm leverage is high, the negative impact of weak corporate governance on IC might be stronger. The burden of debt might exacerbate the negative consequences of poor governance on the company's ability to innovate and invest in IC. Firm leverage could interact with corporate governance indices to moderate the relationship with IC. For example, a company with strong governance practices might overcome the negative effects of high leverage on IC, or the positive impact of good governance might be more pronounced in low-leverage situations.

High firm leverage can lead to financial constraints, limiting the resources available for IC investment, research and development, employee training, and innovation initiatives.

Effective corporate governance might help allocate limited resources more efficiently, even in high-leverage situations, by ensuring strategic decisions that prioritize IC. Some companies might strategically invest in IC to mitigate financial risk associated with high leverage. They recognize the importance of innovation and knowledge assets in maintaining competitiveness.

2.2.12.6 Industry Type

Industry type plays a crucial role in shaping a company's profitability and strategic direction. The specific characteristics of an industry such as market dynamics, competitive intensity, and regulatory frameworks significantly influence a firm's ability to achieve and sustain profitability. Firms operating within the same industry often face similar external factors, including competition, customer preferences, and technological advancements, which collectively impact their strategic choices. These industry-level influences are pivotal in understanding inter-firm heterogeneity, as they highlight the differences between firms in terms of resources, capabilities, and market positioning. Such heterogeneity not only determines a firm's profitability but also contributes to its competitive advantage, helping it craft strategies to outperform rivals.

Industry type also influences market share, which is a critical determinant of a company's performance and competitive standing. A firm's market share reflects its strength relative to competitors and informs corporate, business, and product-level strategies. Additionally, firms with a strong market share often benefit from higher barriers to entry for new competitors, creating a positive perception among customers and enhancing profitability. Scholars frequently use Schmalensee's (1985) model to examine the relationship between industry effects, market share, and firm profitability. This model provides a framework for analyzing how industry-level factors interact with firm-specific strategies to influence performance. Researchers often adapt this model to suit their specific market environments, enabling a nuanced understanding of how industry type shapes the profitability and competitive strategies of firms.

2.3 Empirical Review

Several studies have been carried out in the area of corporate governance and disclosure of intellectual capital. This study will review previous studies beginning with corporate governance and the effectiveness of intellectual capital and attempt to empirically establish the link between corporate governance and the effectiveness of intellectual capital. In addition, this study will review previous studies on the link between corporate governance mechanisms and the disclosure of intellectual capital. This will be done under three categories: corporate governance and disclosure of intellectual capital, ownership structure and disclosure of intellectual capital, and disclosure of intellectual capital on firm performance. This is to provide evidence from the literature and to support the study.

2.3.1 Corporate Governance and Intellectual Capital Disclosure

Numerous studies have established the effect of various corporate governance mechanisms on the disclosure of intellectual capital. These studies have argued that corporate governance variables, such as board characteristics, explain the relationship between corporate governance mechanisms and intellectual capital disclosure. These studies, after conducting different studies in different economies around the world, found that there is a significant positive effect of board independence, board gender diversity, and board size on disclosure of intellectual capital. (Oren, Subhash, Dinesh, and Atchia 2020 & Nicola, Ricciardelli, Rubino, and Vitolla, 2020). However, board characteristics cannot be considered the only factors influencing a company's decision to disclose intellectual capital information in its annual reports. Just as there are other vital elements in the management of the company that can also influence the disclosure of intellectual capital in the annual reports of the companies.

In addition to board features, Baldini and Liberatore (2016), Veltri, and Mazzotta (2016), Rodrigues and Craig (2017), and Muttakin, Khan, and Belal (2015) focused on ownership concentration, board composition, board and management structure. Their studies revealed a negative impact of these variables on the disclosure of intellectual capital by companies. They argued that the concentration of ownership and the composition of independent and non-independent directors will influence, in addition to other characteristics of the board, the disclosure of intellectual capital information by companies. They believed that having the majority of the company's shares controlled by a few would reduce the disclosure of intellectual capital, since the few shareholders who control the main shares of the company would prefer secrecy, especially regarding internal structures and knowledge of the company.

From the previous literature, it is evident that gaps have been created in the aspect of the variables, the studies mainly capture the characteristics of the board of directors, the audit committee and the ownership structure. However, while these variables are important corporate governance mechanisms that influence board decisions about whether to disclose intellectual capital information in company annual reports, there are other elements of the board that are equally critical in shaping the board's decision regarding the disclosure of intellectual capital information. This includes the board governance and nominating committee, remuneration committee and audit committee characteristics.

The board's nominating and governance committee is responsible for selecting and recommending appointments to the Board; it is also responsible for identifying the skills, knowledge and experience required within the board and employees. By these functions of the board of directors, as outlined in the new NCCG (2018), it means that the nominating committee plays a vital role in determining the intellectual capital of a company and can also shape the model disclosure of the company's intellectual capital. Additionally, the political affiliation of board members is likely to affect the disclosure pattern because when board members have affiliations with key politicians in the business environment, this can provide an advantage in business processes and procedures. For this reason, in addition to the variables explored above, this study will also focus on the board's nominating committee, remuneration committee and the audit committee.

Based on the above, the study by Maji and Goswami (2017) showed that the use of a scale can reveals the quality of the disclosure and reflect much more than the mere disclosure or non-disclosure of items. However, the study sample can be expanded to include both the knowledge sector and the traditional sector, and a comparative analysis can be performed. Therefore, this study aims to examine listed companies in Nigeria where a comparison can be made between traditional and knowledge-based sectors in the Nigerian economy.

On the other hand, the studies by Oren, Subhash, Dinesh, and Atchia (2020) and Nadeem, Zaman, De Silva, and Gan (2016), although published in 2020 and 2016 respectively, were carried out with only 1,017 coverage. However, this study will examine annual reports between 2012 and 2021 to determine whether reporting quality has improved as a result of the new corporate governance code in Nigeria and the effect of the pandemic and whether the influence of table feature management has changed.

Furthermore, studies by Yan (2016), Smriti and Das (2020), Baldini and Liberatore (2016), and Nicola, Ricciardelli, Rubino, and Vitolla (2020) focused mainly on the best companies. Generalizing results from large companies to small ones may not be ideal, as most of the decisions made by large companies may not be the same as those made by small companies. That is why this study focuses on all listed companies, including both small and large companies. The study also captures corporate governance variables such as audit committee financial expertise and intellectual capital disclosure meetings. It also proposes new measures to assess HC disclosure by looking at the quality of the information and not just the level of information disclosed.

2.3.2 Ownership Structure and Intellectual Capital Disclosure

There are quiete a whole lot of studies that focused on ownership structure, the different types of ownership structure namely; institutional managerial, foreign, government link and ownership concentration. Most of this studies considers ownership strucutres with firm value or ownership structures with IC. Some of these studies found that there is negative relationship, in some other cases it is an inverse relationship for instance, Mubarik, Naghavi, and Mubarik (2019) examined governance-focused intellectual capital disclosure focused on publicly traded companies in Pakistan. The study used agency theory, while quadratic regression analysis was used for data analysis. The sample size includes 99 Pakistani manufacturing companies listed on the PSX. They found that there is a need to improve governance mechanisms and that it would also be beneficial for companies to restrict family ownership to a certain level in order to maintain optimal disclosure of IC information.

Also, D'Amato (2020) found a direct relationship between IC and one of the ownership structure variable, he examined whether intellectual capital affects the capital structure of firms by exploring the role of firm risk and return. The study used pecking order theory and agency theory. Panel regression analysis was used on a random sample of microfinance firms in Bureau Van Dijk's Analisi Informatizzata delle Aziende Italiane database. He found that companies with a high level of intellectual capital have lower financial leverage and are more profitable and riskier than companies with a low level of intellectual capital. This is supported by the study of Firer and Williams (2015) where they explore the relationship between ownership concentration and intellectual capital disclosure. They examines the association between characteristics of ownership concentration and voluntary intellectual capital IC disclosure practices. Data for the study was collected from the 2000 annual reports of 390 Singapore-listed companies and analyzed using multiple regression. Empirical results indicate that narrower ownership companies listed in Singapore were less likely to voluntarily disclose IC-related information than their counterparts with a more diffuse ownership base. Furthermore, companies with a high level of director ownership were less likely to voluntarily disclose IC-related information than those whose CEOs had smaller stakes in the entity. Finally, the results indicate that diffuse ownership is likely to make more voluntary IC disclosures. The study also contributes by expanding the examination of intellectual capital disclosure practices beyond general descriptive descriptions; however, the study is limited to only listed companies in Singapore and so, the results of this study might not be suitable for application to Nigerian listed commercial companies.

Similarly, Pisano, Lepore, and Lamboglia (2016) examined corporate disclosure of human capital through LinkedIn and the ownership concentration of European companies. They used stakeholder theory and legitimacy theory to establish a link between corporate disclosure of human capital and ownership structure. The data was sourced from the content analysis of more than 150 European companies. They found that ownership concentration negatively influences HC disclosure through LinkedIn, confirming that private companies have little incentive to voluntarily disclose information.

On the other hand, Zhang (2012) combined two forms of ownership structure to find their effect on IC disclosure these are management structure and ownership concentration. The study is based on a sample of 155 companies listed on the New Zealand Stock Exchange covering a total of 519 years per company during the period of January 1, 2008 to August 31, 2011. An index of self-developed disclosure for the study while multiple regression analysis was used to test hypothetical relationships. Overall, the results indicate that the median level of intellectual capital disclosed by New Zealand listed companies is low and that the human capital component is the most frequently disclosed intellectual capital component. The results provide strong evidence that characteristics of the board structure, including board size and independence, have a significant positive impact on the level of intellectual capital disclosure. There is strong evidence for a non-linear relationship between ownership concentration and the level of intellectual capital disclosure, which is robust across various types of intellectual capital (i.e. human, relational, and structural capital). The results showed marginal evidence that gender diversity on boards has a positive impact on the level of intellectual capital disclosure. This study focused on New Zealand listed companies covering a period from 2008 to 2011, so generalizing the finding of this study to other parts of the world may be inappropriate. On the other hand, the period covered by the study is three years to 2011; there is a lot of space between 2011 and 2020. While Usman and Baba examined the effect of ownership structure variables on social and environmental disclosure practices in Nigeria in the year 2019 they found that intellectual capital disclosure has a significant positive effect on the relationship between management ownership, foreign ownership, and dispersed ownership, social and environmental disclosure.The stakeholder theory was used as the underlying theory and multiple regression analysis was used.

In a triangular approach, Celenza and Rossi (2013) examined ownership concentration, intellectual capital disclosure, and firm performance. The goal of the study is to help bridge the gap in the line of study that examines the relationship between IC disclosure and ownership structures. In this sense, 43 listed Italian companies were investigated during the period 2002-2011. A purposive sampling technique was used in which, however, the initial number of companies is subject to reduction due to incomplete data for six of them: the final number of questioned companies is therefore 37. The methodology used in the study is a linear regression analysis that has the task of contrasting a series of hypotheses in the different stages of the investigation. The results obtained by investigating a sample of Italian listed companies during the period 2002-2011 suggest the absence of a relationship between the effectiveness of the IC and the performance of the companies examined, but show a significant relationship between the concentration of ownership, the ICD and company results. The period covered by this study is from 2002 to 2011, using Italian listed companies covering IC effectiveness, IC disclosure, ownership concentration and company performance, but does not specifically cover corporate governance mechanisms, nor is it recent.

Finally, Zhang and Yusuf (2014) studied the effect of board size and ownership concentration on intellectual capital disclosure. The study is based on a sample of 100 companies listed on the Kuala Lumpur Stock Exchange (KLSE) covering a total of 417 company-years during the period from January 1, 2008 to August 31, 2011. A self-developed disclosure index was used for the study, while multiple regression analysis was used to test hypothesized relationships. Overall, the results indicate that the average level of intellectual capital disclosed by Malaysian listed companies is low and that the human capital component is the most frequently disclosed intellectual capital component. The results provide strong evidence that characteristics of board structure, including board size and independence, have a negligible positive impact on the level of intellectual capital disclosure. There is strong evidence for a non-linear relationship between ownership concentration and the level of intellectual capital disclosure, which is robust for various types of intellectual capital (i.e., human, relational, and structural capital).

The results showed marginal evidence that gender diversity on boards has a positive impact on the level of disclosure of intellectual capital. This study focused on companies listed on the Kuala Lumpur Stock Exchange (KLSE) during a period from 2008 to 2011, so generalizing the result of this study to other parts of the world may be inappropriate. Also, the period covered by the study is three (3) years until 2011; there is a lot of gap between 2011 and 2018.

In this section, it is evident that the gaps may have been created in the aspect of the period covered, economic location, as well as temporal circumstances. D'Amato's (2020) study focused on listed Italian companies and explored the relationship between intellectual capital and financial leverage using different measures of intellectual capital. Pisano, Lepore and Lamboglia (2016) analyzed disclosure attributes, such as time orientation (prospective, present or past), nature (quantitative or qualitative) and type (financial or non-financial). This study however took a different approach to ownership structure in consideration for IC disclosure.

2.4 Underpinning Theory

There are several theories that explain the relationship between the disclosure of intellectual capital and the mechanism of corporate governance in the accounting literature. These theories are agency theory, legitimacy theory, resource base view theory, and signalling theory. For the purpose of this research, signalling theory will be used as the underpinning theory where as legitimacy, resource base view and agency will be the supporting theories. This study adopts signalling theory due to its relevance in signalling to stakeholders the capabilities and operational efficiency of companies' activities. This argument can be extended to intellectual capital disclosure, where management can determine the level of disclosure and thus reduce investor uncertainty about the impact of intellectual capital on company value. Therefore, disclosure of high intellectual capital should provide a more intensive monitoring set for a company to reduce opportunistic behavior and information asymmetry. In addition to the signalling theory used to support this study, legitimacy and resource base theory are used as supporting theories to better explain the relationship between corporate governance and intellectual capital disclosure of listed firms in Nigeria.

2.4.1 Signalling Theory

Signalling theory was developed to help explain how decision makers interpret and respond to contexts where information is incomplete and asymmetrically distributed among parties to a transaction (Spence, 1973). Signals are a credible form of communication that conveys information from sellers to buyers (Spence, 2002). To be effective, the signals must meet two conditions: first, the signal must be expensive enough to differentiate the selling companies from each other and on the other hand, external parties, such as buyers, must believe that there is a positive correlation between the signal and the underlying quality (Stiglitz, 1985). As Spence (1973) mentioned, a signal is good only to the extent that it enables the signallers to stand out from the others. Companies can use signalling theory to provide information about their employees. McNall, Masuda, and Nicklin (2010) suggest that observable personnel actions by the organization can be interpreted as signalling more unobservable characteristics, such as employee care and concern on behalf of the organization.

The disclosure of information can be seen as a signal sent to the capital markets (Sánchez, Domínguez & Gallego, 2011). IC disclosure is a mechanism to point out useful information to investors in an intense global competitive economic environment (Abeysekera, 2008). Disclosure research postulates that the most profitable companies would benefit from signalling their competitive advantage through more and better communications (Miller, 2002).

Managers of companies with high levels of IC will be motivated by a market signal in their annual reports to lower the company's cost of capital (Mouritsen, Bukh & Marr, 2004; Vergauwen & van Alem, 2005). Conversely, to maintain its competitive advantage, a company might reduce IC disclosure in an effort not to point out to competitors and others where opportunities may lie (Williams, 2001). This study is motivated by the study of how companies use their IC information decisions to signal the value of the company. The signalling theory raises a number of problems related to IC disclosure. These include questions about (i) IC reporting practices and (ii) motivations for pursuing a disclosure. In this thesis, the signalling theory is an attempt to understand that the disclosure of IC can be considered as a signal of corporate quality.

2.4.2 Agency Theory

Agency theory was first purported by Jensen and Meckling (1976) who argued that the relationship between the shareholders and management was that of agent and principal. The agents are supposed to act in the best interests of their principal and thus the directors are to advance the shareholders' interest; it is the shareholders who are best suited to guide and discipline the directors in carrying out their powers and duties.

Agency theory provides a general framework to resolve agency problems. The central proposition of agency theory is that rational self-interested people always have incentives to reduce or control the losses arising from the conflict of interests among owners and managers (Jensen 1993). In countries where shareholdings are widely dispersed, the potential conflicts are between the shareholders of a company and those managing the company who might allow self-interest to influence their decision-making. Further, countries with more concentrated ownership structures often have a majority of shareholders who are in a position to significantly influence the board. Agency conflict arises because the controlling shareholders might extract private benefits at the expense of the minority shareholders.

Agency theory (Fama & Jensen, 1983; Jensen & Meckling, 1976) states that a company with high agency costs will try to reduce them by increasing the monitoring activity of its corporate governance and the amount of voluntary disclosure. Welker (1995) proposed that agency theory provides a framework for linking voluntary disclosure behaviour to corporate governance, where these two control mechanisms are designed to reduce the agency problem arising from the separation between ownership and management.

It is generally expected that better reporting practices would unveil major agency problems (Ratnatunga & Alam, 2011). Healy, Hutton and Palepu (1999) extend the argument to IC disclosure, whereby management can determine the level of disclosure and thereby reduce investor uncertainty relating to the impact of IC on the firm's value. Abeysekera (2008) regards managers as agents of capital providers who are motivated to monitor and report IC on the behalf of investors. In return, investors reward managers through monetary incentives for increasing the market value of the firm.

Agency theory can be further developed by empirical analysis of family firms because of the different incentives that motivate family shareholders in contrast to diversified shareholders (Bartholomeusz & Tanewski, 2006). For example, Morck, Stangeland and Yeung (2000) identify the possibility that family firms might use their concentrated block holding to expropriate wealth from other shareholders through excessive compensation, related party transactions, and special dividends. Traditionally, owner-managed firms are regarded as having no or insignificant agency costs (Fama & Jensen, 1983; Jensen & Meckling, 1976). Similarly, the agency problem in family firms is treated as trivial, because altruism among family members makes them work for the family's interest, and the overlap between family and management ownership aligns the interest of owners and managers (Jensen & Meckling, 1976).

The agency framework raises a number of important questions for financial reporting and disclosure researchers. These include questions on (i) corporate factors, including family control affecting disclosure, (ii) the value-relevance of a disclosure, (iii) the effectiveness of financial statements in mitigating agency problems, and (iv) managerial motivations on a disclosure.

2.4.3 Legitimacy Theory

Legitimacy theory derives from the concept of organizational legitimacy, which was defined by Dowling and Pfeffer (1975) cited in James, Suresh and Leanne (2006) as "a condition or status that exists when an entity's value system is consistent with the value system of the larger social system of which the entity is a part. When there is a disparity, actual or potential, between the two value systems, there is a threat to the legitimacy of the entity." The Legitimacy Theory also explains why companies choose to voluntarily declare their IC. Suchman (1995) states that legitimacy theory is " a widespread perception or assumption that the actions of an entity are desirable, adequate or appropriate within a socially constructed system of norms, values, beliefs, and definitions ." It focuses on the link between the organization and its operating environment (Neu, Warsame & Pedwell, 1998).

Legitimacy theory recognizes stakeholder groups at a conceptual level; it deals with "perceptions and the processes involved in redefining or maintaining those perceptions and can accommodate notions of global discourses and power relations" (Moerman & Van der Laan, 2005). Relevant stakeholders evaluate an organization based on their perceptions regarding the congruence between their values and organizational value (Mobus, 2005). According to this logic, organizations exist in societies under an explicit or implicit social contract (Campbell, 2000). Therefore, changing the value system embedded in the social system will lead to social change in organizations. Specifically, it is considered that the survival of an organization will be threatened if society perceives that the organization has violated its social contract.

Legitimacy theory is based on the idea that to continue operating successfully, companies must act within the limits of what society identifies as acceptable behavior. From the perspective of legitimacy theory, companies continually seek to ensure that they operate within the limits of their respective societies. Consequently, it is assumed that the company is influenced by the society in which it operates and, in turn, has an influence on it. Therefore, disclosure policies are seen as a means by which management can influence external perceptions of their company (Deegan, 2002). For example, a company may seek to educate and inform its affected audiences about changes in corporate performance and operations by employing outreach strategies (Lindblom 1994). Furthermore, a company that has lost some of its legitimacy can regain it through positive disclosure (Campbell, Craven & Shrives, 2003).

For disclosure purposes, a company might voluntarily report its activities if management perceives that this is what the community expects (Deegan, 2000). From the perspective of legitimacy theory, Guthrie (2004) argues that companies are more likely to disclose their IC if they are recognized as a symbol of company success. Therefore, companies with high levels of IC are more likely to participate in voluntary disclosures because they cannot legitimize their status through traditional financial accounting information (2004).

Legitimacy theory has been used to examine the motivations for disclosure in the annual report (O'Dwyer, 2002). Specifically, the theory raises a number of important issues related to disclosure issues. These include questions about (i) the business factors that affect the disclosure, (ii) the type of industry that accounts for the disclosure, and (iii) management's perception of the disclosure. In an attempt to gain or maintain legitimacy between the company and its societal expectations, legitimacy theory can be used to explain IC disclosure.

2.4.4 Resource Based View (RBV)

RBV is a theory that attempts to assess the importance of internal company resources as variables, within the organization, that create competitive advantage, thereby resulting in superior performance (Clulow, et al., 2003). Physical capital resources (physical technology used, facilities and equipment), human capital resources (training, experience and intelligence of managers and workers) and organizational capital resources (official business information structure, formal and informal planning, control and coordination). Systems, internal and external relationships are all mentioned by Barney (1991).

According to the RBV, the resources of organizations must have four characteristics to contribute to a long-term competitive advantage. They must first be valuable, in the sense that they can take advantage of opportunities and/or neutralize threats in a company's environment; second, they must be rare markets, that is, monopolistic; third, they must be difficult to imitate, that is, difficult to reproduce and finally, they must be difficult to replace, that is, difficult to transfer (Barney, 1991). RBV studies the crucial resources that enable and maintain a company's competitive advantage. Intangible resources, such as IC, are likely to have the qualities of assets that can provide resources to businesses. Highly talented staff and high-tech branded items, for example, provide a sustained competitive advantage because they are sometimes rare and often difficult for competitors to copy.

2.5 Chapter Summary

The chapter begins with the definitions of the concepts used in the work, and also discusses corporate governance, its nature, regulation and disclosure. The concepts of intellectual capital were also discussed; this was followed by a comprehensive review of empirical studies on selected variables. The review of the empirical studies showed that the studies captured corporate governance variables such as board meeting, audit committee size, and government liaison ownership in intellectual capital disclosure and mainly in other countries. Whereas, this study intends to use the characteristics of the nomination & governance committee, remuneration committee and audit committee. The theoretical framework in which the signalling theory is used to support the study was discussed, since by disclosing information on intellectual capital in the annual reports of listed commercial companies, the corporate governance mechanism sends a signal to interested parties about the strength, capabilities and experience of companies, assets (intellectual capital) as well as the activities of the organization as they affect society.

Table 2.1 Summary of Literature Review

SN	Author(s) Year	Title	Theory	Method/Sample/ Instrument	Variables of Study	Findings
1	Collins G. Ntim Teerooven Soobaroyen and Martin J. Broad (2017)	Governance structures, voluntary disclosures and public accountability The case of UK higher education institutions	Legitimacy theory, resource dependence theory and stakeholder perspectives theory	Multiple Linear Regression	1. Public Accountability and Transparency Index 2. Community Service. 3. Financial reporting.	Audit committee quality, governing board diversity, governor independence and the presence of a governance committee are associated with the level of disclosure.
2	Saarce Elsye Hatane, Felicia Nathania, Jocelyn Lamuel, Fenny Darusman & Devie Petra. (2020)	ICD and Corporate Governance in Gaining the firms' Non-Discretionary Profits and Market Value in ASEAN-5	Resource Based Theory	Ordinary Least Square analysis and Multiple Linear Regression (sample of 112 technological firms listed in ASEAN-5 countries)	1. ICD. 2. Non-discretionary net income. 3. Cash flow Operations. 4. Market to book ration. 5. Board Independence/ 6. Board Size 7. Board Gender.	The study find that, 1. NDNI increases ICD, 2. No ICD components are capable of affecting CFO. 3. ICD benefits from all the performance indices used in the study.
3	Luigi Lepore, Sabrina Pisano,	The myth of the "good governance code": an analysis of the relationship		Ordinary Least Square and Multiple Regression (a	1. Ownership Structure,	A negative relation between ownership

	Assunta Di Vaio and Federico Alvino (2017)	between ownership structure and the comply-or-explain disclosure		sample of 75 non-financial companies listed in Italy in 2016).	2. Ownership Concentration 3. Financial shareholders 4. Leverage, 5. firm size 6. firm age	concentration and the disclosure analyzed.
4	Corporate governance mechanisms and firm performance in a developing country	Albert Puni and Alex Anlesinya (2019)		Panel Regression Analysis (A sample of 38 listed firms in Ghana from 2006 to 2018)	1. Return on assets 2. Return on equity 3. Earnings per share 4. Board Committee 5. board meeting 6.shareholder's concertation	the presence of both insiders and outsiders on the corporate board improved financial performance. Similarly, board size, frequency of board meetings and shareholder concentration/ownership structure generally had a positive impact on financial performance.
5	Tamanna Dalwai, Syeeda Shafiya Mohammadi, Gaitri Chugh and Mahdi Salehi (2020)	the impact of IC efficiency and corporate governance mechanisms on the annual report readability of Oman's financial sector companies	Agency theory	random effects regression analysis (A sample of 150 firm-year observations of listed financial sector companies in the Muscat Securities Market, Oman, from 2014 to 2018.)	Readability of annual report, board size, board independence, board meeting, ownership concentration, audit committee size and audit committee meeting	The findings demonstrate a decrease in IC efficiency associated with better readability of annual reports for the financial sector firms.

6	Mishari M. Alfraih (2017)	The role of corporate governance in IC. disclosure		Multiple Regression Analysis	IC., Board size, government ownership, company size, company performance, company leverage	corporate governance mechanisms strongly influence the quantity of IC information disclosed in the annual reports of KSE-listed companies
7	Tamer Mohamed Shahwan and Mohamed Mahmoud Fathalla (2020)	The mediating role of intellectual capital in corporate governance and the corporate performance relationship	Resources dependency theory	Tobin's Q and Multiple Linear Regression (A sample size of 150 firms listed in the Egyptian Exchange)	1. IC. 2. Operating efficiency 3. Corporate governance index 4. firm performance	The aggregate CG score has a significant positive impact on the IC and the two measures of firm performance. However, the IC has only a partial mediation effect on the relationship between the aggregate corporate governance score and a firm's operational efficiency ratio.
8	Mishari M. Alfraih (2016)	What drives IC. reporting? Evidence from Kuwait	Classical Framework	Multiple Linear Regression Analysis	1. IC. 2. Leverage 3. Company's size 4. Company's age 5. Industrial sector	findings reveal an overall relatively low level of IC. Reporting among Kuwait Stock Exchange-listed companies.

9	Mahmoud Lari Dashtbayaz, Mahdi Salehi, Alieyh Mirzaei and Hamideh Nazaridavaji (2017)	The impact of corporate governance on intellectual capitals efficiency in Iran	Agency theory, Resources dependency thoery	Panel Regression Analysis	1. Corporate governance 2. Audit committee independence 3. Audit committee size 4. Cumulative capital 5. Human capital 6. Structural capital 7. Return on investment	findings indicate that while the board's independence, financial expertise and the size of the audit committee are negatively related to the communicative capital, the relationship between audit committee independence and communicative capital is positive and significant.
10	Elisabeth Albertini, Fabienne Berger-Remy, Stephane Lefrancq, Laurence Morgana, Milos Petkovic and Elisabeth Walliser (2020)	Voluntary disclosure and IC.: how CEOs mobilise discretionary accounting narratives to account for value creation stemming from IC.	Agency theory	Lexical content analysis (a sample size of 241 letters from the CEOs of S&P Euro 350 companies addressed to shareholders)	1. IC. 2. Corporate governance	this study brings to light discretionary narratives about human, digital, customer and environmental capital and their interactions. In particular, CEOs are promoting two new themes, environmental capital and digital capital, as major contributors to value creation.
11	Amina Buallay and Jasim Al-Ajmi (2018)	The role of audit committee attributes in corporate sustainability reporting	Stakeholder's Theory	Cross-sectional time series analysis	1. Audit committee size	There is a negative association between financial

		Evidence from banks in the Gulf Cooperation Council			2. Audit committee independence 3. Audit quality 4. Sustainability disclosure	expertise and sustainability reporting.
12	Ute Vanini and Robert Rieg (2019)	Effects of voluntary intellectual capital disclosure for disclosing firms	Stakeholder's theory	Structured literature review approach	1. IC. 2. Voluntary disclosure 3. value relevancy	The results mainly support the expected positive effects of voluntary ICD on monetary value for disclosing firms, e.g. lower cost of capital, higher firm value or increased analysts' following
13	Ngoc Phu Tran, Loan Thi-Hong Van and Duc Hong Vo (2019)	The nexus between corporate governance and IC. in Vietnam	Stakeholder's Theory	Multiple Panel Regression Analysis	1. IC. 2. board size 3. Board Committee 4.	Findings indicate that key characteristics of corporate governance, except for board remuneration, may provide a negative effect on the efficient use of IC.
14	Mutalib Anifowose, Hafiz Majdi Abdul Rashid and Hairul Azlan Annuar (2015)	IC. disclosure and corporate market value: does board diversity matter?	Signaling theory, Upper echelon theory	Two-step system generalized method of moment; Multiple linear regression	1. IC. 2. Market capitalization 3. Board ethnicity 4. Board religiosity	The results show a significant positive relationship between overall IC. disclosure and market capitalization and a negative impact on cost of capital, which are in

						line with the hypothesized propositions. The moderating effect of board diversity is also confirmed.
15	Oren Mooneeapen, Subhash Abhayawansa, Dinesh Ramdhony and Zainab Atchia (2020)	New insights into the nexus between board characteristics and IC. disclosure: the case of the emerging economy of Mauritius	Agency theory	Panel regression analysis (a sample of 120 firm-year observations from companies listed on the Stock Exchange of Mauritius from 2014 to 2017)	1. IC. disclosure 2. board size 3. board independence 4. multiple boards directorship	ICD is negatively associated with board independence and positively associated with gender diversity of the board. No association is found between ICD and the size of the board, multiple directorships or the average tenure of the board members.
16	Zainabu Tumwebaze, Juma Bananuka and Kassim Alinda and Dorcus Kalembe (2020)	IC.: mediator of board of directors' effectiveness and adoption of International Financial Reporting Standards	diffusion of innovations theory	Cross-sectional questionnaire. (a sample size of 67 microfinance Institutions in Uganda)	1. IC. 2. Board independence 3. Board meetings 4. Board size 5. Board committee	IC. mediates the relationship between board of directors' effectiveness and adoption of IFRS.
17	Allan Chang (2017)	Analysis on corporate governance compliance standards in New Zealand – a qualitative study on	Positive accounting theory, Legitimacy theory, Stakeholder theory	case study content analysis (The sample size of this study represents 3 per cent of total listed	1. Board Committee 2. Board independence	The study found that a high compliance was recorded in areas such as Board Committee and board

		disclosures using content analysis and interviews		companies in New Zealand).	3. Board committee 4. Board size	committees and low compliance recorded in areas involving costly implementation or when the issue is sensitive such as disclosures regarding remuneration details of directors and what non-audit work was undertaken and whether it compromises auditor independence
18	Bello Usman Baba and Usman Aliyu Baba (2019)	the effect of ownership structure variables on social and environmental disclosure practice in Nigeria.	Stakeholders' theory	Multiple regression analysis	1. Foreign ownership 2. social and environmental disclosure 3. IC.	The result revealed that IC. disclosure has a significant positive effect on the relationship between management ownership, foreign ownership and dispersed ownership, social and environmental disclosure.
19	Santi Gopal Maji and Mitra Goswami (2017)	IC disclosure practices in India using a comprehensive disclosure framework A study of knowledge-based companies		Content Analysis (A sample size of 30 listed knowledge-intensive companies from two sectors – pharmaceutical sector and engineering sector).	1. IC. disclosure 2. Market capitalization	The overall IC. disclosure trend showed an increase in reporting practice over the five-year study period.

20	Sabrina Pisano, Luigi Lepore and Rita Lamboglia (2016)	Corporate disclosure of human capital via LinkedIn and ownership structure An empirical analysis of European companies	Stakeholders' theory, Legitimacy theory	quantitative methodology and content analysis (a sample size of 150 European companies).	1. IC. 2. Human capital 3. Ownership concertation 4. Ownership structure	The results indicate that ownership concentration negatively influences HC disclosure via LinkedIn, confirming that closely held firms have little motivation to voluntarily release information.
21	Elisa Giacosa, Alberto Ferraris and Stefano Bresciani (2016)	Exploring voluntary external disclosure of IC. in listed companies An integrated IC. disclosure conceptual model	Transparency model	Content Analysis	1. IC. 2.	An effective IC. Discloser may only be achieved through a combination of decisions taking into account each individual company's needs and those of stakeholders' ones.
22	Valentina Beretta and Chiara Demartini and Sara Trucco (2018)	Does environmental, social and governance performance influence intellectual capital disclosure tone in integrated reporting?	Agency theory	Multiple Panel Regression	1. IC. 2. Financial performance 3. voluntary disclosure	ICDs in integrated reports are mainly discursive, with a backward-looking orientation and a limited focus on human capital. On average, more than half of each ICD is conveyed in a positive tone.
23	Marina Dabic, Bozidar Vlasic, Veronica	Two decades of the Journal of IC.: a bibliometric overview and an agenda for future research	Knowledge based theory	Bibliometric Analysis, Scopus database and Web of Science (WOS)	1. IC. 2.	The prestigious positioning of this journal is evidenced

	Scuotto and Merrill Warkentin (2020)					both through the increasing number of citations received from other highly regarded journals and through its impact upon the establishment of new streams of research.
24	Wendy Terblanche and Charl De Villiers (2018)	The influence of integrated reporting and internationalisation on IC. disclosures		Multiple regression analysis (a sample of 40 companies were selected from the 271 companies listed on the main board of the JSE).	1. IC. 2. Rational capital 3. structural capital 4. human capital	companies preparing an integrated report disclose more IC information, and that companies exposed to international capital market pressures through cross-listing do not disclose more IC information.
25	Petr Parshakov and Elena Shakina (2019)	Do companies disclose intellectual capital in their annual reports? New evidence from explorative content analysis	Positive accounting theory	Content analysis	1. IC. 2. content analysis 3. Voluntary disclosure	companies do not extensively disclose IC in their annual reports. However, some narrative forms for IC disclosure are identified and confirmed by several robustness checks.
26	Tatiana Garanina and John Dumay (2016)	Forward-looking intellectual capital disclosure in IPOs Implications for IC. and integrated reporting	Agency theory	Content analysis and multiple regression analysis	1. IC. 2. Initial public offering 3. global financial crisis	IPO prospectuses contain significant amounts of IC disclosure; after the GFC technology companies disclose

						more IC information; IC disclosure has a higher influence on post issue stock performance after the GFC than before.
27	Angus Duff (2017)	IC. disclosure: evidence from UK accounting firms	Institutional theory	Content analysis	1.IC. disclosure 2. corporate social responsibility	ICDs vary across different forms of reports. The most frequently reported disclosure category is human capital, while the least reported category is internal capital.
28	Neha Smriti and Niladri Das (2020)	Do female directors drive IC. performance? Evidence from Indian listed firms	Resources dependency theory and agency theory	Panel data regression (a sample of 272 Indian firms listed on the National Stock Exchange).	1. IC. 2. board gender diversity 3. female independent director	capital employed efficiency shows the strongest association with female directors on board, followed by structural capital efficiency and human capital efficiency, while relational capital efficiency shows no significant effect; female independent directors has a significant but negative impact on IC.
29	Tamanna Dalwai and Syeeda	IC. and corporate governance: an evaluation of	Agency theory and resources dependency theory	Multiple regression model (a sample size of 31 listed	1. board size	board size and frequency of audit

	Shafiya Mohammadi (2018)	Oman's financial sector companies		financial sector companies for the period).	2. audit committee meeting 3. IC. 4. board frequency	committee meetings have a significant association with the IC. efficiency of Oman's financial sector.
30	John Dumay and James Guthrie (2016)	Involuntary disclosure of IC.: is it relevant?		Bibliometric Analysis (A sample size of ICD literature reviewed)	1. IC. 2. involuntary disclosure 3.	In highlighting the limitations of the traditional ICD literature, the authors provide a foundation from which researchers should contemplate a powerful new force in ICD brought about by the rapid transformation in technologies and forces of mass communication.
31	Paoyu Huang, Yensen Ni and Yi-Rung Cheng (2019)	Do IC.s matter to firm value enhancement? Evidences from Taiwan		Petersen regression models	1. IC. 2. firm value 3.corporate governance 4. financial statement	Firm value is affected positively by the average net profit per employee as well as goodwill and intangible assets.
32	Nicola Raimo, Alessandra Ricciardelli, Michele	Factors affecting human capital disclosure in an	Agency theory	regression model (a sample of 137 worldwide companies)	1. IC. 2. human capital 3. firm size	Results showed a positive and significant impact of firm size, board size, board

	Rubino and Filippo Vitolla (2020)	integrated reporting perspective			4. firm profitability 5.board size 6. board independence 7. board diversity	independence and board diversity on the level of HC information disclosed by companies within their integrated reports.
33	Giuseppe Nicolò, Natalia Aversano, Giuseppe Sannino and Paolo Tartaglia Polcini (2020)	ICD corporate communication and its determinants: evidence from Italian listed companies' websites	Stakeholder's theory	Content analysis and ordinary least square regression analysis (a sample of 117 Italian listed companies).	1. IC. 2. board size 3. board independence 4. firm size 5. leverage 6. corporate governance	The results show that Italian listed companies are exploiting the potential of websites to satisfy the information needs of investors and other stakeholders in relation to strategic IC-based corporate resources, with a particular focus on external capital.
34	Filippo Vitolla, Nicola Raimo, Michele Rubino and Antonello Garzoni (2020)	Broadening the horizons of IC. disclosure to the sports industry: evidence from top UEFA clubs	Voluntary disclosure theory	Multiple regression analysis. (a sample of the 80 football clubs that qualified for the group stages of the 2019–20 UEFA Champions and Europa League).	1. IC. 2. sport performance 3. technical market value 4. social media visibility	football clubs disclose a limited amount of information regarding intangibles on their websites. In addition, they show that sports performance, technical market value and social media visibility have a positive effect on the disclosure level.

35	A. D'Amato (2020)	Does IC. impact firms' capital structure? Exploring the role of firm risk and profitability	pecking order theory; Agency theory	Panel Regression Approach (A sample size of random microfinance firms in Analisi Informatizzata delle Aziende Italiane) database of the Bureau Van Dijk).	1. IC. 2. value added intellectual coefficient 3. financial leverage 4. profitability and risk	firms with a high level of IC. have lower financial leverage and are more profitable and riskier than firms with a low level of IC.
36	Xiaochang Yan (2016)	Corporate governance and IC. disclosures in CEOs' statements	Agency theory	Content Analysis (a sample of 78 FTSE 100 companies).	1. board size 2. Board Committee 3. share concertation 4. IC. 4. profitability and leverage	a significant positive relationship between Board Committee and the extent, amount and tone of CEOs' IC. disclosures and a significant negative relationship between shares concentration and the amount of these disclosures.
37	Muhammad Nadeem, Rashid Zaman, Tracy-Anne De Silva and Christopher Gan (2016)	Boardroom gender diversity and IC. efficiency: evidence from China	Resources dependency theory	Panel regression (a sample size of publicly listed firms in China from the Bloomberg database)	1. board gender diversity 2. board characteristic 3. firm performance 4. IC.	a significant relationship between gender diversity and IC efficiency, in static ordinary least square estimation, but this disappears when endogeneity is accounted for using dynamic GMM.
38	Afzalur Rashid (2016)	The influence of corporate governance practices on corporate social	Legitimacy theory and Stakeholders theory	Multiple regression analysis and content analysis (a sample size of	1. corporate social responsibility	corporate governance practices do not have any influence on

		responsibility reporting		101 publicly listed non-financial firms in Bangladesh).	2. corporate governance index 3. board independence 4. debt and liquidity ratio	firm CSR reporting and CSR disclosure by firms is not responsive to new corporate governance regulations.
39	Afsaneh Lotfi, Mahdi Salehi and Mahmoud Lari Dashtbayaz (2020)	The effect of IC. on fraud in financial statements	Human capital theory	Multiple panel regression (a sample of 187 listed firms on the TSE)	1. IC. 2. fraud 3. return on equity 4, return on assets 5. liquidity	a negative and significant relationship between IC and its components, including the efficiency of HC, SC, RC and CC, and fraud in financial statements.
40	Maria Assunta Baldini and Giovanni Liberatore (2016)	corporate governance and IC. disclosure. an empirical analysis of the Italian listed companies	Agency theory, legitimacy theory and stakeholder's theory	Multiple regression analysis	1. IC. 2. ownership concertation 3. board size 4. Board Committee 5. leadership structure	Corporate governance mechanisms has influence on the IC. disclosure in corporate annual reports for a sample of all listed Italian firms at 31st December 2010.
41	Shujaat Mubarik, Navaz Naghavi and Muhammad Faraz Mubarik (2019)	Governance-led IC. disclosure: empirical evidence from Pakistan	Agency theory	Quadratic regression analysis (a sample size of 99 Pakistani manufacturing companies listed in the PSX)	1. family ownership 2. board independence 3. family duality 4. audit committee	it is necessary to improve the governance mechanisms. It would also be beneficial for firms to restrict the family ownership to a certain level in order keep the information disclosure optimal.

42	Saarce Elsye Hatane, Felicia Nathania, Jocelyn Lamuel, Fenny Darusman and Devie (2020)	IC. Disclosures and Corporate Governance in Gaining the Firms' Non-Discretionary Profits and Market Value in ASEAN-5	Signaling theory, agency theory, resources based theory	Ordinary least square method	1. human capital disclosure 2. structural capital 3. relational capital disclosure 4. Non discretionary net income 5. board independence 6. board size 7. cash flow operations	*Non-Discretionary Net Income increases when firms increase RCD quality. No IC. Disclosure components are capable of affecting CFO while SCD is a variable that decreases NDNI value.*
43	Francisca Tejedo Romero and Joaquim Filipe Ferraz Esteves Araujo (2018)	Management strategy and IC. disclosure: influence of corporate governance		multivariate linear regression analysis		
44	Joy Elly Tulung, Ivonne Stanley Saerang and Stevanus Pandia (2018)	The influence of corporate governance on the IC. disclosure: a study on Indonesian private banks		Multiple panel regression	1. audit committee 2. independent commissioners 3. IC. disclosure 4. risk oversight committee	Composition of Independent Commissioners has a positive and significant influence on the IC. disclosure; the Competence of Audit Committee has a positive and significant influence on the IC. disclosure;

						and the Competence of Risk Oversight Committee does not influence the IC. disclosure.
45	Francesca Tejedo-Romero, Lúcia Lima Rodrigues and Russell Craig (2017)	Women directors and disclosure of IC. information		Multiple regression (a sample of all 25companies listed continuously on Spain's IBEX).	1. board gender 2. board size 3. board independence 4. ownership concertation 5. board activities 6. sustainability index	gender diversity is a complementary corporate governance mechanism that has a significant positive effect on levels of disclosure of IC information.
46	Rupjyoti Saha and Kailash Chandra Kabra (2020)	Corporate governance and voluntary disclosure: evidence from India		Appropriate panel data regression model	1. board gender 2. board size 3. board independence 4. ownership concertation 5. board activities 6. voluntary disclosure	a significant negative influence of BI on VD while GD and RMC exhibit a significant positive influence on the same. The remaining CG mechanisms such as BS, RD, OC, ACI and NRC appear to have no significant influence on VD. Analysis into the relationship between CG mechanisms and different types of VD reveals that BI, in particular, has a strong negative influence on corporate strategic

						disclosure (CSD) and forward looking disclosure (FWLD) while GD and RMC both exhibit a significant positive influence on CSD, FWLD, CG disclosure and financial and capital market disclosure. Notably, none of the CG mechanisms under consideration influence human and IC. disclosure
47	Isabell Osadnik, Paloma Bilbao-Calabuig and M. Eugenia Fabra (2021)	Exploring processes in Spanish, German and UK boards: a measurement framework of board know-how, board diversity and directors' interactions interrelation	Agency theory	Ordinary least square regression	1. Board diversity, 2. Board procedure, 3. Social interactions 4. Board know-how	demographic diversity contribution to know-how is totally and positively mediated by directors' social interactions. This reveals the power of directors' socialization frequency in determining processes and predicting know-how.
48	Naveed Iqbal Chaudhry, Muhammad Azam Roomi	Impact of expertise of audit committee chair and nomination committee chair on financial performance of firm	1. Agency theory 2. Human capital theory	Quantitative approach from 50 non-financial firms of Pakistan	1 Audit committee chair 2 Return on assets 3 Financial expertise	financial and monitoring expertise of ACC and experiential expertise of NCC positively influence return on

	and Iqra Aftab (2020)				4 Monitoring expertise 5 Profitability	assets, return on equity and the net profit margin of the firm. However, no significant influence of experiential expertise of ACC and monitoring and HR expertise of NCC on FP was found.
49	Nazli Anum Mohd Ghazali (2020)	Governance and ownership in Malaysia: their impacts on corporate performance	Resources dependency theory	Regression analysis with a sample size of all 742 non-financial main board companies listed on Bursa Malaysia	1 Corporate governance 2. Corporate performance 3. Board size 4. Board meetings 5. Role duality 6. Government ownership 7. Director ownership	the number of board meetings held during the year, role separation and board size have a significant impact on corporate performance. By contrast, independent directors, government ownership and director ownership do not influence corporate performance.
50	Vu Quang Trinh, Marwa Elnahass, Ngan Duong Cao (2021)	The value relevance of bank cash Holdings: The moderating effect of board busyness	Agency theory	Multiple linear regression A sample of 70 listed banks for the period from 2010 to 2018.	1 marketable security 2 board busyness 3 corporate governances	Findings indicates that investors negatively value banks' holdings of large free cash flow. However, having busy board outside members, who are able to monitor that free cash reserves more effectively, tends to enhance the public confidence and in turn,

						cancel out the negative value relevance of cash holding information.
51	Nuria Reguera-Alvarado and Francisco Bravo-Urquiza (2021)	The influence of board social capital on corporate social responsibility reporting	Resources dependency theory	A dynamic panel data model based on the GMM A sample is composed of Spanish listed firms in the Madrid Stock Exchange for the period 2011–2017	Board IC., Board social capital, Multiple directorships, CSR reporting, Board size, Gender diversity	an ambiguously positive association between multiple directorships and the level of CSR reporting. In particular, this relationship is positively moderated by both board size and gender diversity.
52	Maria Aluchna, Maria Roszkowska-Menkes, Bogumił Kaminski, Dominika Bosek-Rak (2021)	Do institutional investors encourage firm to social disclosure? The stakeholder salience perspective	Stakeholders' theory	Multiple panel regression analysis with a sample of 2,480 firm-year observations from 529 companies listed on the Warsaw Stock Exchange	1 Ownership structure 2. Ownership concertation 3. Social disclosure	there is a negative association between institutional ownership and disclosure of the social performance, both in general and particularly so in the case of ownership by mutual funds or corporate pension funds.
53	Naveed Iqbal Chaudhry, Muhammad Azam Roomi and Iqra Aftab (2020)	Impact of expertise of audit committee chair and nomination committee chair on financial performance of firm	1 Agency theory 2 Human capital theory	Multiple panel regression	1 Audit committee 2 Audit expertise 3 Nomination committee 4 Audit committee chair 5 Return on assets	t financial and monitoring expertise of ACC and experiential expertise of NCC positively influence return on assets, return on equity and the net profit margin of the firm. However, no significant influence of

						experiential expertise of ACC and monitoring and HR expertise of NCC on FP was found.
54	Sumaira Ashraf & Elisabete G. S. Félix & Zélia Serrasqueiro (2021)	Does board committee independence affect financial distress likelihood? A comparison of China with the UK	Agency theory Resources dependency theory	a conditional logit model on a sample of matched pair firms.	1 Financial distress 2 Board independence 3 Board committee 4 Corporate governances	a positive and statistically significant association between the percentage of independent audit committee members and the financial distress of firms.
55	Joni Joni, Kamran Ahmed and Jane Hamilton (2020)	Politically connected boards, family business groups and firm performance Evidence from Indonesia	Agency theory Resources dependency theory Complementary theory	Tobin's Q	1 Politically connected boards 2 firm performance 3 Family business groups	political connections of SBs are more significantly associated with firm performance than that of BODs. Furthermore, such an association is not monotonic, in that the relationship declines after a certain level of political connections
56	Noorul Azwin Binti Md Nasir, Muhammad Jahangir Ali and Kamran Ahmed (2018)	Corporate governance, board ethnicity and financial statement fraud: evidence from Malaysia	Research based theory	univariate and logistic regression model	1 Board ethnicity 2 Financial fraud 3 corporate governances	a significant positive relationship between the proportion of Malay directors on the board and the financial statement fraud.

57	Darren Henry, Seema Miglani and Kamran Ahmed (2019)	Corporate governance and turnaround: Evidence from Australia	Agency theory	samples of 99 turnaround and 99 non-turnaround listed Australian firms	Return on assets Cash flow Corporate governance Ownership structure	turnaround and non-turnaround firms differ in terms of their ownership and Board Committee structures, and that changes in director ownership and the degree of board independence are important in determining the likelihood of turnaround success
58	Muhammad Nurul Houqe, Kamran Ahmed and Grant Richardson (2020)	The Effect of Environmental, Social, and Governance Performance Factors on Firms' Cost of Debt: International Evidence	Socio-political theory Signaling theory	Multiple panel regression with a sample of 18,950 firm-year observations from 41 countries	1 Cost of debt 2 environmental social and governance 3 corporate social responsibility	a significant negative association between aggregate ESG performance and firms' cost of debt
59	James Guthrie (2020)	The management, measurement and the reporting of IC.	Human capital theory	Panel regression analysis	1 IC. 2 structural capital 3 human capital	
60	Nick Bontis (1998)	IC.: an exploratory study that develop measures and model	Human capital theory	Partial least square	1 IC. 2 structural capital 3 human capital 4 customer capital	
61	Ramla Sadiq, Safia Nosheen	The influence of governance on IC. in textile industry	Agency theory	Random Effect Regression techniques	1 corporate governances 2 IC.	a negatively significant impact of corporate governance index on IC.

	and Waseem Akhtar (2020)				3 conventional measure 4 value added intellectual coefficienct	performance while subindices give mixed results
62	Joseph V. Carcello, Dana R. Hermanson, Terry L. Neal and Richard A. Riley, JR (2020)	Board Characteristics and Audit Fees		Multiple linear regression	Audit fees; Board characteristics; Board Expertise; Board Independence	find significant positive relations between audit fees and board independence, diligence, and expertise. The results persist when similar measures of audit committee "quality" are included in the model.
63	Ranjith and Mohammed Bhuyan (2015)	Examining the influence of corporate governance on IC. efficiency Evidence from top service firms in Australia	Agency theory	Multiple regression analysis A sample of 300 firm-year observations	CEO Duality, Board Size, Board Committee, committee composition, audit committee efficiency	t CEO duality, Board Committee and remuneration committee composition are significantly associated with IC. In contrast, there is no evidence that board size and audit committee composition have an effect on IC.
64	Fabrizio Cerbioni & Antonio Parbonetti (2008)	Exploring the Effects of Corporate Governance on IC. Disclosure: An Analysis of European Biotechnology Companies	Agency theory	Cross sectional regression analysis with a sample of European biotechnology firms.	CEO Duality, Board Size, Board Committee, committee composition, audit committee efficiency	(1) the proportion of independent directors is positively related to the disclosure of internal structure, (2) CEO duality is negatively linked to the disclosure

						of forward-looking information, and (3) board structure helps to improve the annual report’s overall readability.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter discusses how the research was conducted. The purpose of this chapter is to go over the conceptual framework, hypotheses generation, research technique and design, and procedures for doing the research, which includes variables measurement, data collection, technique for data analysis, and research models.

3.2 Research Framework

The level of ICD is the dependent variable in this study. Fifty-two corporate governance elements, which incorporates five components Board Structure (BST), Board Procedure (BPR), Board Committees (BCM), Ownership Structure (ONS), and Disclosure Practices (DIS) each representing critical aspects of governance. These components collectively comprise 52 elements, carefully selected based on prior literature and their relevance to the Nigerian corporate environment. These variables were chosen based on the gap established from previous research and are closely related to the Nigerian business environment. This relationship is explained by a number of theories, including agency theory, legitimacy theory, resource-based view and signalling theory, as well as earlier empirical works. This methodology explains the relationship between corporate governance mechanisms and the disclosure of IC in annual reports of listed firms in Nigeria. The major goal of this study is to find the effect of these corporate governance indices on disclosure of IC among listed firms in Nigeria. The human aspects, such as corporate governance structure, as well as non-human aspects, such as company structure, are considered to explain the diverse practices of IC disclosure among listed firms in Nigeria.

3.2.1 Development of the Research Framework

The research framework for this study has been developed by synthesizing insights from past studies and adapting them to address the specific objectives and context of this research. The framework integrates theoretical underpinnings, particularly signaling theory, with empirical evidence from prior research to examine the influence of corporate governance mechanisms on ICD.

The foundation of the framework is derived from prior studies that emphasize the role of corporate governance in enhancing transparency and reducing information asymmetry (Shivdasani & Yermack, 1999; Abeysekera, 2012). These studies highlight how corporate governance mechanisms, such as board structure, board committees, ownership structure, and disclosure practices, act as significant drivers of firm-level disclosures, including ICD. Building on these findings, the framework incorporates key governance mechanisms that have been empirically linked to ICD, ensuring that it aligns with existing knowledge while addressing gaps in the literature specific to Nigeria's context.

Additionally, the framework reflects the principles of signaling theory, which explains how firms use governance mechanisms to signal their commitment to transparency and accountability to stakeholders. This theoretical foundation ensures that the framework is grounded in a well-established theoretical lens, making it applicable for examining the relationship between governance mechanisms and ICD in the context of Nigerian firms.

While the framework draws heavily from prior studies, it is also customized to address the unique dynamics of the Nigerian corporate environment. The inclusion of control variables, such as return on assets (ROA), firm size, leverage, and industry type, further contextualizes the framework, acknowledging the influence of firm-specific and industry-specific factors on

ICD. Moreover, the selection of governance mechanisms, such as the corporate governance index and board procedures, reflects the growing emphasis in Nigerian corporate governance codes on fostering transparency and enhancing the quality of disclosures.

Thus, the research framework represents a balanced integration of established knowledge from past studies and original contributions from this study. By tailoring the framework to the Nigerian context, the study not only builds on existing research but also provides a novel approach to understanding how corporate governance mechanisms influence IC disclosure in a developing economy setting. The research framework is depicted in figure 3.1 below:

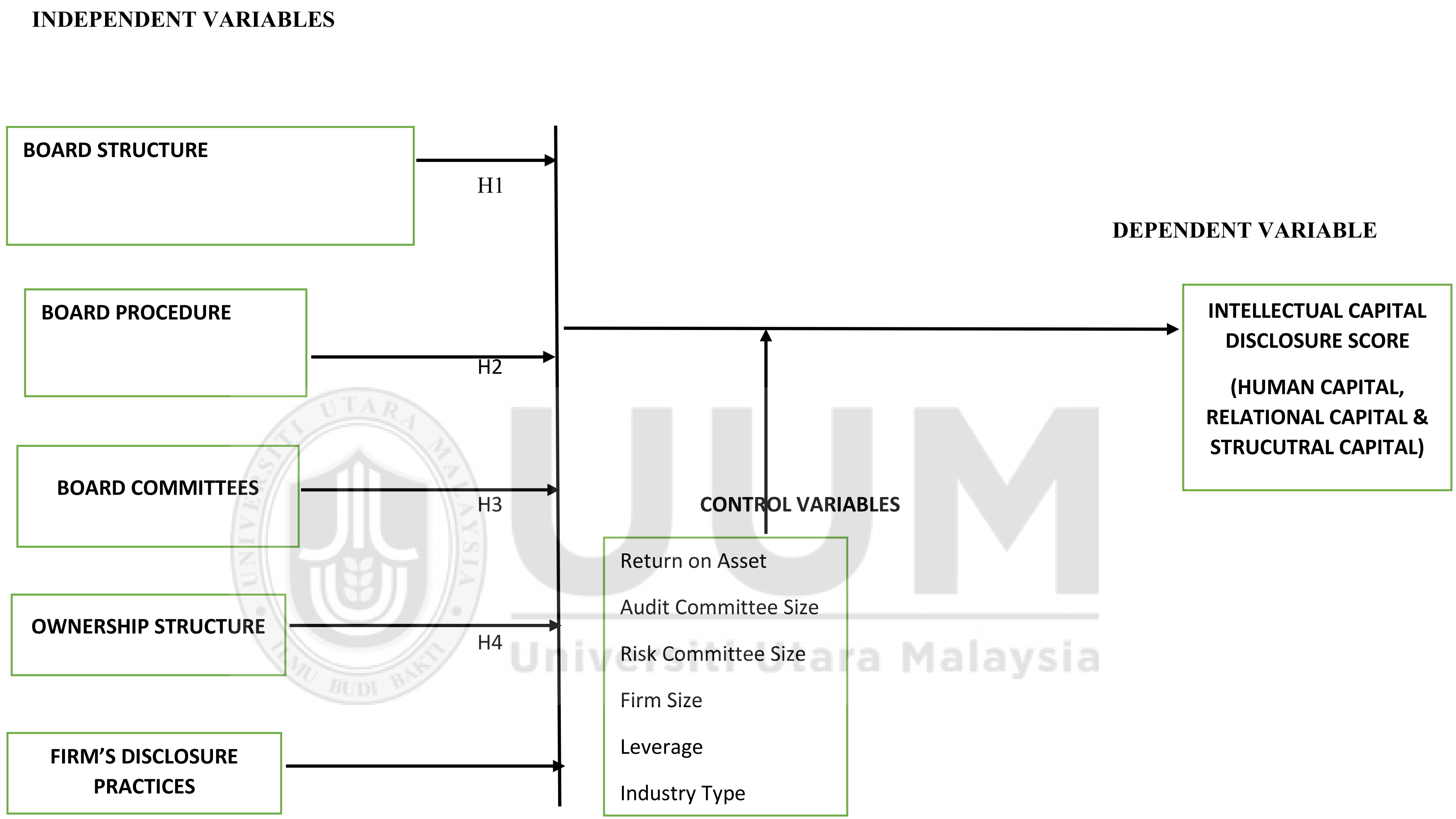

Figure 3.1Research Framework.

3.2.2 Theoretical Framework and Integration of Signaling Theory in the Research Framework

Signaling theory serves as the primary theoretical lens for this study, offering a robust explanation of how firms use corporate governance mechanisms to communicate their commitment to transparency and accountability through ICD. In the context of signaling theory, firms act as signalers, using various governance mechanisms to send credible signals to stakeholders about their operational efficiency, risk management, and future value. These signals, in the form of ICD, reduce information asymmetry between firms and stakeholders and build trust, thereby attracting investment and enhancing firm value.

The research framework, derived from signaling theory, focuses on corporate governance mechanisms as critical signals influencing ICD. Each independent variable in the framework represents a specific governance mechanism that signals a firm's quality and reliability to stakeholders. These mechanisms include the corporate governance index, board structure, board committees, board procedures, ownership structure, and firm disclosure practices. By emphasizing these mechanisms, the framework operationalizes the signaling process within the corporate governance-ICD relationship.

The corporate governance index encapsulates a firm’s overall governance quality, and from a signaling perspective, a high index score signals strong governance practices, enhancing stakeholders’ confidence in the accuracy and comprehensiveness of ICD. Similarly, the composition and independence of the board act as signals of effective oversight. A well-structured board demonstrates the firm’s commitment to transparency and accountability, which positively influences ICD. In addition, specialized committees, such as audit and risk committees, serve as signals of a firm’s focus on specific governance areas. For example, an effective audit committee indicates a firm’s dedication to financial integrity, aligning with comprehensive ICD. Furthermore, transparent and efficient board procedures send signals about the firm's governance efficiency. Practices such as regular evaluations and detailed minutes reinforce the perception of a well-governed firm that values transparency through ICD.

Moreover, ownership structure, including the proportion of institutional and foreign ownership, serves as a signal of external scrutiny. Higher external ownership indicates rigorous monitoring, compelling the firm to improve ICD to maintain investor confidence. Transparent and credible disclosure practices themselves are strong signals to stakeholders, as firms that adopt standardized frameworks like the Global Reporting Initiative (GRI) or Integrated Reporting emphasize their commitment to providing reliable and structured ICD. Additionally, the inclusion of control variables, such as return on assets (ROA), firm size, leverage, audit committee size, and industry type, accounts for external and internal factors influencing the signaling process. For instance, a high ROA strengthens the positive signal of good governance practices on ICD.

By integrating signaling theory into the research framework, this study offers a nuanced examination of how corporate governance mechanisms influence ICD. Positioning ICD as a signal of a firm's governance quality not only highlights its role in reducing information asymmetry but also underscores the critical importance of corporate governance mechanisms in shaping the effectiveness of this signal.

3.2.3 Corporate Governance mechanisms and ICD as explained by other theories

Corporate governance plays a key role in shaping how companies disclose their IC things like employee expertise, company processes, and external relationships. Different theories help explain why firms choose to be transparent about these intangible assets, including agency theory, resource-based theory, and legitimacy theory.

Agency theory focuses on the relationship between company managers and shareholders. Since managers make decisions on behalf of shareholders, there's always a risk that they might act in their own self-interest rather than in the best interests of the company. Strong corporate governance mechanisms, like independent boards and audit committees, help keep managers accountable and reduce information gaps. When governance is strong, companies are more likely to disclose details about their IC to build trust and assure investors that they are acting responsibly.

Resource-based theory looks at how companies gain a competitive edge through their unique assets and capabilities. IC is one of the most valuable assets a company can have, as it includes employee knowledge, organizational processes, and customer relationships. When firms have good governance structures, they are more likely to highlight these intangible resources through disclosure, using it as a strategy to showcase their strengths to investors, stakeholders, and competitors. By doing so, they enhance their reputation and position themselves as industry leaders.

Legitimacy theory suggests that companies disclose IC not just for financial reasons but also to meet societal expectations. In industries where knowledge and expertise are critical, stakeholders expect transparency about intellectual assets. Strong corporate governance encourages firms to provide this information, ensuring they maintain public trust and legitimacy. Companies often use ICD as a way to strengthen their reputation and show that they are aligned with ethical and social standards.

Overall, these three theories agency, resource-based, and legitimacy help explain why corporate governance matters in ICD. Whether to build trust, showcase strengths, or meet societal expectations, companies with strong governance are more likely to be transparent about their intellectual assets.

3.3 Hypotheses Development

The signalling theory is the key theory that has been utilized to establish hypotheses for determining the effect of corporate governance on IC disclosure. The key concept of signalling theory is that an organization would operate and reveal information about its actions in order to convey operational efficiency and wealth generation intentions. (Spence, 2002). Companies will provide disclosure for this type of developing information since it is considered important, so that stakeholders are aware of their operations. Legitimacy, resource base and agency theories were also considered in the development of the hypotheses.

3.3.1 Board Structure

Resource based theory suggests that firms possess heterogeneous resources, meaning they have different strengths and weaknesses. Furthermore, different forms of resources intangible and tangible resources. In terms of IC, the intangible resources are of great consideration because some firms might have extensive human capital (knowledge and expertise of employees), while others might have strong relational capital (relationships with customers, partners, etc.). Board structure can influence how these different forms of IC are recognized, managed, and disclosed. Resource based theory emphasizes that certain resources are not easily replicated or changed by competitors. In the case of IC, a company's unique knowledge, culture, and human capital are difficult for competitors to duplicate. The board's composition, including members with diverse expertise and industry knowledge, can enhance the firm's ability to recognize and effectively disclose these unique resources. Resource based theory suggests that combining and leveraging resources can lead to competitive advantage. A board with a diverse composition that includes members with various skills, backgrounds, and industry experiences can help the company recognize different aspects of IC and develop comprehensive disclosure strategies that reflect the synergy of these resources.

Resource based theory highlights the importance of protecting and controlling valuable resources. An effective board can ensure that ICD practices balance transparency with the need to safeguard sensitive information. This involves determining what aspects of IC can be disclosed without compromising competitive advantage. Resource based theory proposes that firms should integrate their resources and capabilities into a coherent strategy. The board can play a role in aligning ICD with the company's overall strategic goals, ensuring that disclosures support the firm's positioning in the market and its relationships with stakeholders.

A stream of value relevance research attempts to determine the factors that may influence the quality of accounting information. It is suggested that one of the positive impacts of adopting good corporate governance practices is to improve the quality of accounting information. Therefore, this study is build on the literature that examining the effects of corporate governance mechanisms such as board structure and ownership concentration on the value relevance of reported accounting information. Beeker and Brown (2006) find evidence that better-governed firms do make more informative disclosure by examining corporate disclosures of top 250 Australian firms. The corporate governance score is based on the quality of the board and its principal committees. However, this study uses secondary resource for corporate governance ranking and it does not test how good governance structure was defined.

Habib and Azim (2008) examine the relationship between corporate governance structure and the value relevance of accounting information. With regard to corporate governance mechanisms, this study focuses on board structure. Consistent with Beeker and Brown (2006), the study finds evidence that better corporate governance structures improve the value relevance of accounting information. The relationship between board structure and ICD can be analyzed through the lens of agency theory, which is a framework that explores the potential conflicts of interest between different stakeholders within an organization. In the context of corporate governance, agency theory focuses on the relationship between shareholders (the principals) and management (the agents), and how to align their interests.

With the exception of Elyasiani and Zhang (2015), Kutubi et al. (2018), Trinh et al. (2020), and Elnahass et al. (2020), little attention has been given to the various positions held by board members as well as how their performance influences the board's decision-making and firm performance. According to Elyasiani and Zhang (2015), regulators frequently keep a close eye on several board positions and are typically reluctant to ask board members to take significant risks because doing so could damage their reputation as professional administrators. As a result, they tend to favor more pragmatic board members. While IC is frequently described as a collection of intangible resources that contributes to an organization's price and competitive advantage (Nazari and Herremans, 2007; Alvino et al., 2020). More specifically, IC is frequently created by the "value-creating" of three components (Bontis, 1998): a firm's human capital (the capabilities, skills, expertise, experience, competence, innovation, and learning ability of the workforce), structural or structure capital (business processes and systems, structure culture, and structure capabilities), and relative capital (relations the firm has established with its stakeholders, like customers, creditors, investors, suppliers, etc.).

Analysis of IC has advanced steadily, and its concentration has captivated through whole new stages. The most recent stages have examined social control implications and new dimensions of IC, such as the environment and property, while the first stages focused on the theoretical conception and the identification of its components (Massaro et al., 2018; Nirino et al., 2020). However, recent research has shown that a company's IC is also ingrained in its people, structures, and relationships. As a result, governing bodies, namely the board of administrators, can create this capital. Board members' IC, which can be divided into human capital and social capital, is responsible for creating and bolstering a company's IC. (Berezinets et al., 2016; Perez-Calero et al., 2016). Board social capital, on the other hand, refers to the connections that board members have with various stakeholders both inside and outside the company. Board human capital, on the other hand, refers to the knowledge and abilities of administrators (Johnson et al., 2013).

Boards may employ their IC to help companies gain a competitive advantage and raise prices (Hillman, 2005). Directors' IC, in particular, could provide the board with important intangible resources that could be crucial in terms of increasing recommendations and counsel, firm legitimacy and name, and channels of communication between the firm and external organizations. This could have a significant impact on IC revelation and firm performance (Ramon-Llorens et al., 2019). This study explicitly contributes to this body of literature by delving deeper into the function of board social capital as a source of IC and examining the relationship between many board directorships and IC revelation.

Unlike other tangible assets, IC is highly risky, uncertain and firm specific (Alves & Martins, 2010). Consequently, agency costs and information asymmetry are expected to be high when IC. is intensively involved in the business process (Alves & Martins, 2010). These problems can be mitigated through the enhanced monitoring systems of the principle (Jensen and Meckling, 1976) and greater disclosure of the activities of the agent (Healy & Palepu, 2001). Within the agency framework, corporate governance literature argues that stronger corporate governance system is effective to diminish agency problems. As stated in Bushman and Smith (2003), the main purposes of corporate governance are to ensure minority shareholders receive reliable information so that they are not expropriated by majority shareholders, and to motivate managers to maximise the value of the firm instead of pursuing individual objectives. This study, therefore, hypothesis as follows;

H1: There is a significant effect of board structure on ICD of listed firms in Nigeria.

3.3.2 Board Procedures

According to legitimacy theory, organizations strive to maintain or enhance their social legitimacy by aligning their actions, policies, and disclosures with the norms, values, and expectations of society. In the context of ICD, board procedures can play a significant role in demonstrating the organization's commitment to legitimacy and influencing its disclosure practices. Responsibilities of individual directors highlighted in best practice guidelines include responsibility for board evaluation; long-term strategy and planning; policy formulation and monitoring; quality of board reporting and management information systems; short-term budgeting and monitoring; management performance evaluation; risk assessment and management; quality of internal systems of control; financial reporting and filing procedures; public relations and communications; review of the audit function; distributions to shareholders; funding; and acquisitions, mergers, divestments and takeovers (Securities Commission New Zealand, 2003; Price Waterhouse Coopers, 2003). board tasks refers to the specific work and operational activities or outputs performed by the board (Dulewicz & Herbert, 2003; Carter & Lorsch, 2004). These activities and responsibilities are scheduled into the board's agenda and signify the board's role in overseeing the CEO and the organisation (Carter & Lorsch, 2004).

Board procedures related to IC. disclosure can signal the company's strategic intent and focus on innovation and knowledge-based activities. For instance, if the board establishes procedures for regular reporting on research and development initiatives, patent filings, or technology investments, it can signal to stakeholders that the company places a significant emphasis on IC generation and utilization. The rigor and transparency of board procedures can serve as signals of the company's credibility and commitment to ICD. Establishing formal procedures for data collection, verification, and reporting can communicate to stakeholders that the disclosed information is accurate and reliable, enhancing the credibility of the disclosed IC. metrics.

One may be persuaded to view board choices as a coin with a hidden side processes and a perceptible side board and company performance by looking at Forbes and Milliken's (1999) model of board procedure. Their model invites to consider that know-how links stages as a result of processes that give birth to all decisions made in the boardroom by sequentially setting that (1) what directors individually invest in terms of knowledge, skills, and demographic traits (2) collectively produces specific board procedure to (3) result in performance outputs. Based on this interpretation of the role of board expertise, this study makes the case that expertise cannot be deduced from board demographics and must instead be developed through directors' social interactions. The study conceptualizes knowledge as a decisional construct fueled by demographic variety and other individual abilities entrenched in the knowledge on board tasks domain, arising from directors' social interactions that produce particular behavioral processes. Through their own educational background, previous work as directors in other firms, and company-specific training, directors gain competence in the board duty domain.

Finally, training programs improve directors' abilities in the area of board jobs and aid in their better comprehension of their roles and obligations within the board (Chiang and He, 2010). (Bernstein et al., 2015; Brown et al., 2012). Additionally, training is necessary to cultivate ethical behavior, diversity on the Board, and director relationships, to encourage reporting in the event of manipulation of a board member, and to help members feel more empowered to express their own opinions (Maharaj, 2008).

The key enabler of board internal procedures is fostering social interactions (Daily et al., 2003; Francoeur et al., 2018; Huse, 2005; Pugliese et al., 2015; Roberts et al., 2005; Steckler & Clark, 2019). Directors' interactions entail conversations and exchanges that could enhance or degrade the quality of decisions and create or eliminate knowledge and resources inside the board (Barroso-Castro et al., 2017; Forbes & Milliken, 1999; Francoeur et al., 2018; van Ees et al., 2009). Board meetings, casual social gatherings, and induction programs are the three main scenarios to promote director exchanges, according to the scant research on directors' time spent together (Baccouche et al., 2014; Berman et al., 2002; Du and Xu, 2018; Forbes and Milliken, 1999; Geletkanycz & Hambrick, 1997; Grassi et al., 2016; Gray & Nowland, 2018; Piekkari et al., 2015; Roberts et al., 2005; Schwizer et al., 2011; Vafeas, 1999; van Woerkom & Sanders, 2010). There is a lot of study on board meetings, but it typically uses them as proxies for board activity rather than for the frequency of contacts.

Despite the fact that director interactions are essential to board knowledge, little is known about how director induction and ongoing programs, which are set up by businesses to help directors socialize and communicate, affect the relationship between diversity and board performance.

Companies must adopt proactive and successful ICD initiatives to respond to the rising pressure the environment is exerting when it comes to creating competitive advantage (Gangi and Trotta, 2013). Additionally, external confirmation of this information is likely to improve the company's reputation, which might be attained by utilizing the competitive advantage brought about by accumulated credibility and quality (Casey and Grenier, 2015; Birkey et al., 2016; Odriozola and Baraibar-Diez, 2017). Legitimacy theory suggests that organizations need to engage with their stakeholders and respond to their concerns in order to maintain legitimacy. Board procedures related to stakeholder engagement, such as regular interactions with investors, employees, customers, and communities, can influence the decision to disclose IC information. Engaging with stakeholders can help identify the most relevant and valued ICD. According to the above debate, having several directorships is supposed to serve as a source of IC and to encourage board members to amass important resources in order to get a competitive advantage by increasing IC reportage. Thus the following hypothesis is formulated:

H2: There is a significant effect of board procedures on ICD of listed firms in Nigeria.

3.3.3 Board Committees

In the context of signalling theory, board committees can play a significant role in shaping and signalling a company's commitment to ICD. Signalling theory suggests that companies use various signals to communicate valuable information to external stakeholders, such as investors, creditors, and customers. Board committees focused on ICD can serve as a powerful signal to convey the company's dedication to managing, leveraging, and disclosing its IC assets effectively. For a more accurate evaluation of senior management choices and performance, an audit committee with a majority of independent directors can improve the quality of financial information. A compensation or remuneration committee made up primarily of independent directors can better align the interests of top executives and shareholders by having openly disclosed remuneration packages.

When the chair of the nomination and governance committee is capable and knowledgeable, it is anticipated that the committee would operate more successfully. The nomination and governance committee chair's knowledge of human resources, oversight, and practical experience enables him or her to guarantee the proper appointment and evaluation of board members, to provide a foundation for resolving shareholder disputes, and to appropriately reduce agency problems (McNulty et al., 2011).

The independence of the nominating and governance committee is a crucial quality. The selection committee makes sure that the most qualified individual is appointed to make the critical strategic decisions for a company (Financial Reporting Council, 2012; 2014). The directors chosen by the nominating and governance committee are accountable for acting in the best interests of shareholders and enhancing a company's operations to increase shareholder value. The nomination and governance committee further guarantees the independence and freedom of the chosen directors to operate without interference from management (Petra, 2005;

Puni, 2015). According to Vafeas (1999), there is a correlation between the caliber of newly appointed directors and the existence of a nominating and governance committee. In fact, another research by Agyemang-Mintah (2015) demonstrated that the inclusion of a nominating and governance committee significantly improves UK enterprises' return on assets (ROA) and firm value (as determined by Tobin's Q) (Agyemang-Mintah & Schadewitz, 2018).

The independence of the nomination and governance committee significantly reduces nepotism to resolve the agency issue, enhances the firm's governance (Puni, 2015; Vafeas & Theodorou, 1998), leads to better financial performance and disclosure (Fauzi & Locke, 2012), and ultimately lowers the firm's default risk. There is still little research on nomination and governance committees; few academics have looked at how they affect the firm's financial performance and, consequently, its transparency. It turns out that the nomination and governance committees receive more attention in the literature on nomination and governance committees for Nigerian firms, which is fairly natural given the most recent reforms and the demands of the new code of corporate governance.

Establishing a dedicated board committee that specifically focuses on IC -related matters sends a strong signal to stakeholders. This committee's existence highlights the company's recognition of the importance of IC and its intention to actively manage and disclose information about these intangible assets. Expertise and Focus: A committee dedicated to IC brings together board members with specialized expertise in areas such as technology, innovation, human resources, and knowledge management. This composition signals the company's commitment to having knowledgeable individuals oversee and guide the disclosure of IC-related information. It is proposed that; based on the theoretical justification and earlier empirical findings;

H3: There is a significant effect of board committees on ICD of listed firms in Nigeria.

3.3.4 Ownership Structure

The effect of ownership structure on ICD within the framework of legitimacy theory can be quite intricate. Ownership structure refers to the distribution of ownership interests among various shareholders in a company, including individual investors, institutional investors, and company insiders. Legitimacy theory suggests that organizations disclose information to maintain or enhance their social legitimacy by aligning with societal norms and expectations. Institutional investors, such as mutual funds, pension funds, and investment firms, often hold significant ownership stakes in companies. These investors may have specific expectations regarding ICD, particularly if they believe that the effective management of IC positively impacts long-term value. To maintain legitimacy and attract institutional investors, companies may be more inclined to disclose information about their IC assets and strategies.

Individual retail investors, while collectively holding a significant portion of ownership, may have diverse information preferences. However, companies might consider disclosing IC information to enhance transparency and trust among individual shareholders, who could view IC as an important driver of future growth and profitability.

Ownership by company insiders, such as executives and board members, can influence ICD. If insiders perceive IC as a key competitive advantage, they might encourage the disclosure of relevant information to demonstrate the company's innovation and knowledge-driven focus. Insiders might also be more aware of the legitimacy benefits associated with disclosing IC information.

In companies with concentrated ownership (few dominant shareholders), the preferences of those dominant shareholders can significantly influence disclosure practices. If these dominant shareholders value ICD as a means to enhance the company's reputation and long-term prospects, the company might be more motivated to disclose such information.

Legitimacy theory predicts that companies respond to pressures from stakeholders, and this includes shareholder activists. If shareholder activists advocate for increased disclosure of IC information, companies might consider complying to demonstrate their responsiveness and commitment to addressing stakeholder concerns.

Companies with ownership structures that emphasize long-term value creation may be more inclined to disclose IC information. This is because IC is often associated with sustainable competitive advantage and future growth potential, aligning with the interests of long-term-oriented investors.

Consequently, where there is likely to be an environment of greater conflict, principals are likely to demand more information so they can more effectively monitor that their economic interests are optimized. Also, agents are likely to voluntary disclose more details when ownership is diffused so as to signal the market and shareholders that they have acted in the best interests of the owners. Results of prior empirical research of the association between voluntary corporate disclosures and ownership diffusion are mixed. Craswell and Taylor (1992), find no significant association between ownership diffusion and voluntary disclosures. Conversely, McKinnon and Dalimunthe (1993) and Hossain, Tan and Adams (1994) find a significant positive association between ownership diffusion and voluntary corporate disclosures. Whilst the evidence is informative but mixed, Chau and Gray (2002) report, based on a sample of Singapore industrial firms, voluntary corporate disclosures levels increase as ownership concentration is diminished.

Our main focus is to examine whether different ownership groups affect IC performance differently. Mohd-Saleh, Rahman, and Ridhuan (2009) find that family owned firms listed on the Malaysian market have a negative impact on IC performance. They suggest that this relation is consistent with the entrenchment theory, which suggests that when a party owns a significant controlling part of the firm they tend to value their benefits over the benefits of the minority shareholders. The case of Turkey is similar to that of Malaysia, where most firms listed on the market are family owned. Therefore, we also expect to have a negative relation between family ownership and IC performance.

The association between institutional ownership and disclosure has been extensively researched. However, the empirical evidence is mixed. For example, Lakhal (2005) and Laidroo (2009) find that companies with higher institutional ownership disclose more information. In contrast, Schadewitz & Blevins (1998), Celik, Ecer, & Karabacak (2006), and Ntim et al. (2013) find a negative relationship between institutional ownership and corporate disclosure. However, an insignificant relationship between the two variables is found by Elzahar & Hussainey (2012), Wang & Hussainey (2013), and Alnabsha, Abdou, et al. (2018).

Most of the institutional investors are individuals and family owners which are more likely to behave opportunistically towards transparency and other shareholders' rights (Albassam, 2014). Thus, they may have a negative impact on corporate transparency, in particular, to serve their interests and expropriate other shareholders' rights. Accordingly, It can be hypothesized that;

H4: There is a significant effect of ownership structure on ICD of listed firms in Nigeria.

3.3.5 Disclosure Practices

Disclosure practices play a crucial role in signaling a firm's commitment to transparency and accountability, particularly in the context of ICD. Firms that consistently provide clear, credible, and reliable disclosures demonstrate to stakeholders that they prioritize open communication and trust. Transparent disclosure practices not only enhance stakeholders' confidence but also encourage firms to provide more comprehensive insights into their intangible assets. The adoption of standardized reporting frameworks, such as the Global

Reporting Initiative (GRI) or Integrated Reporting, further underscores a firm's dedication to structured and comprehensive disclosure. When these frameworks include guidelines for IC reporting, firms are more likely to disclose detailed and valuable information about their IC assets.

Corporate governance codes globally emphasize the importance of disclosure practices in promoting transparency and accountability. For example, the establishment of remuneration committees, as recommended by various corporate governance codes (e.g., Cadbury, 1992; The Combined Code, 2000), has been linked to improved disclosure practices. These committees, often independent and focused on compensation-related matters, play a vital role in bridging the gap between ownership and management (Shivdasani & Yermack, 1999). By rewarding directors who serve as efficient monitors, these committees contribute to better governance and more effective disclosure practices, particularly in areas such as human resources and IC. (Eminet & Guedri, 2010; Vafeas 1999).

Globally, stock exchanges like NYSE and NASDAQ have mandated that remuneration committee members be independent to enhance investor confidence and ensure fair decision-making in areas such as executive compensation. Studies indicate a positive relationship between independent remuneration committees and improved corporate performance and disclosure (Puni, 2015; Zhu, Tian, & Ma, 2009). Furthermore, remuneration committees, by considering directors' qualifications, experience, and accomplishments, ensure that compensation packages align with corporate financial performance and disclosure goals (Herdan & Szczepańska, 2011). However, evidence on the direct impact of these committees on voluntary disclosure practices remains mixed, with some studies reporting positive effects (Laksmana, 2008; Tao & Hutchinson, 2013) while others find no significant relationship

(Allegrini & Greco, 2013). Based on theoretical justifications and prior empirical findings, the study hypothesizes:

H5: *There is a significant effect of firm disclosure practices on the ICD of listed firms in Nigeria.*

This approach highlights the critical role of disclosure practices in fostering transparency, accountability, and stakeholder trust, particularly in the Nigerian corporate context.

3.4 Research Design

A research design is to help the researcher in data collection in order to answer the research questions and perform hypothesis testing, based on the objectives of the study. As stated by Sekaran (2010), research design is a plan which explains how the study is being conducted and generally, it consists of many procedures and elements, such as to determine the purpose of the study, define the unit of analysis, the type of investigation used and set the time boundaries for the study. Each of the types of research method is intended to answer different kinds of questions. Furthermore, according to Gay and Diehl (1996), research is classified into five categories, namely: descriptive study, historical study, correlation study, experimental study and causal-comparative study.

This study adopts an ex-post facto research design, as the events under investigation have already occurred. The ex-post facto design is particularly suitable for examining the relationship and the extent of the effect of corporate governance mechanisms on the ICD of listed firms in Nigeria. This design allows for the analysis of existing data to identify patterns, relationships, and potential causal inferences without manipulating variables, making it appropriate for exploring historical corporate governance practices and their impact on ICD (Kerlinger & Lee, 2000; Cohen, Manion, & Morrison, 2018). By employing this design, the study provides robust insights into the dynamics between corporate governance and ICD, facilitating a deeper understanding of how governance mechanisms influence disclosure practices in the Nigerian corporate context. The study also introduces control variables. The use of control variables in research is essential to improve the accuracy and validity of your analysis. Control variables help mitigate the impact of confounding factors, isolate the effects of the main variables of interest, and enhance the robustness of your findings.

Control variables constitute a central element of the research design of any empirical study. Confounding variables are likely to covary with the hypothesized focal independent variables thus limiting both the elucidation of causal inference as well as the explanatory power of the model (Pehazur & Schmelkin, 1991; Stone-Romero, 2009). Therefore, researchers must seek to rule out threats to valid inferences in order to determine to what extent the focal independent variables behave as hypothesized. This is typically done by including (controlling for) extraneous variables that are deemed theoretically (or empirically) important but are not focal variables of the study (Kish, 1959). The literature sometimes refers to such variables as covariates, confounding variables, nuisance variables, control variables or simply controls (Atinc, et al., 2012; Breaugh, 2008).

3.5 Population, Sample and Sampling Technique

The population of this study comprises all the listed firms in Nigeria as at 31st December 2021. The listed firms in Nigeria as at 31st December, 2021 comprised of one hundred and fifty -six (156) firms in total. The names as well as sub-sectorial breakdown of the firms is shown in the table below:

Table 3.1: Population Table

S/N	SUB-SECTOR	LISTED FIRMS IN NIGERIA AS AT 31st DECEMBER 2021
A	**Agriculture**	
1	Agriculture	Ellah Lakes Plc.
2	Agriculture	Ftn Cocoa Processors Plc
3	Agriculture	Livestock Feeds Plc.
4	Agriculture	Okomu Oil Palm Plc.
5	Agriculture	Presco Plc
B	**Construction/Real Estate**	
6	Construction/Real Estate	Arbico Plc.
7	Construction/Real Estate	Julius Berger Nig. Plc.
8	Construction/Real Estate	Ronchess Global Resources Plc
9	Construction/Real Estate	Sfs Real Estate Investment Trust
10	Construction/Real Estate	Smart Products Nigeria Plc
11	Construction/Real Estate	Union Homes Real Estate Investment Trust (Reit)
12	Construction/Real Estate	Updc Plc
13	Construction/Real Estate	Updc Real Estate Investment Trust
C	**Consumer Goods**	
14	Consumer Goods	Bua Foods Plc
15	Consumer Goods	Cadbury Nigeria Plc.
16	Consumer Goods	Champion Brew. Plc.
17	Consumer Goods	Dangote Sugar Refinery Plc
18	Consumer Goods	Dn Tyre & Rubber Plc
19	Consumer Goods	Flour Mills Nig. Plc.
20	Consumer Goods	Golden Guinea Brew. Plc.
21	Consumer Goods	Guinness Nig Plc
22	Consumer Goods	Honeywell Flour Mill Plc
23	Consumer Goods	International Breweries Plc.
24	Consumer Goods	Mcnichols Plc
25	Consumer Goods	Multi-Trex Integrated Foods Plc
26	Consumer Goods	N Nig. Flour Mills Plc.
27	Consumer Goods	Nascon Allied Industries Plc
28	Consumer Goods	Nestle Nigeria Plc.
29	Consumer Goods	Nigerian Brew. Plc.
30	Consumer Goods	Nigerian Enamelware Plc
31	Consumer Goods	P Z Cussons Nigeria Plc.
32	Consumer Goods	Unilever Nigeria Plc.
33	Consumer Goods	Union Dicon Salt Plc.
34	Consumer Goods	Vitafoam Nig Plc.
D	**Conglomerate**	
35	Conglomerate	Chellarams Plc.
36	Conglomerate	John Holt Plc.
37	Conglomerate	S C O A Nig. Plc.
38	Conglomerate	Transnational Corporation Plc
39	Conglomerate	U A C N Plc.
E	**Financial**	
40	Financial	Abbey Mortgage Bank Plc

41	Financial	Access Bank Plc.
42	Financial	Ecobank Transnational Incorporated
43	Financial	Fbn Holdings Plc
44	Financial	Fcmb Group Plc.
45	Financial	Fidelity Bank Plc
46	Financial	Guaranty Trust Holding Company Plc
47	Financial	Infinity Trust Mortgage Bank Plc
48	Financial	Jaiz Bank Plc
49	Financial	Livingtrust Mortgage Bank Plc
50	Financial	Npf Microfinance Bank Plc
51	Financial	Stanbic Ibtc Holdings Plc
52	Financial	Sterling Bank Plc.
53	Financial	Union Bank Nig.Plc.
54	Financial	Union Homes Savings And Loans Plc.
55	Financial	United Bank For Africa Plc
56	Financial	Unity Bank Plc
57	Financial	Wema Bank Plc.
58	Financial	Zenith Bank Plc
59	Financial	African Alliance Insurance Plc
60	Financial	Aiico Insurance Plc.
61	Financial	Axamansard Insurance Plc
62	Financial	Consolidated Hallmark Insurance Plc
63	Financial	Cornerstone Insurance Plc
64	Financial	Coronation Insurance Plc
65	Financial	Goldlink Insurance Plc
66	Financial	Guinea Insurance Plc.
67	Financial	International Energy Insurance Plc
68	Financial	Lasaco Assurance Plc.
69	Financial	Linkage Assurance Plc
70	Financial	Mutual Benefits Assurance Plc.
71	Financial	Nem Insurance Plc
72	Financial	Niger Insurance Plc
73	Financial	Prestige Assurance Plc
74	Financial	Regency Assurance Plc
75	Financial	Sovereign Trust Insurance Plc
76	Financial	Staco Insurance Plc
77	Financial	Standard Alliance Insurance Plc.
78	Financial	Sunu Assurances Nigeria Plc.
79	Financial	Universal Insurance Plc
80	Financial	Veritas Kapital Assurance Plc
81	Financial	Africa Prudential Plc
82	Financial	Aso Savings And Loans Plc
83	Financial	Resort Savings & Loans Plc
84	Financial	Royal Exchange Plc.
85	Financial	Nigeria Enerygy Sector Fund
86	Financial	Nigerian Exchange Group
87	Financial	United Capital Plc
88	Financial	Custodian Investment Plc

89	Financial	Deap Capital Management & Trust Plc
F	**Healthcare**	
90	Healthcare	Ekocorp Plc.
91	Healthcare	Fidson Healthcare Plc
92	Healthcare	Glaxo Smithkline Consumer Nig. Plc.
93	Healthcare	May & Baker Nigeria Plc.
94	Healthcare	Morison Industries Plc.
95	Healthcare	Neimeth International
96	Healthcare	Pharma-Deko Plc.
G	**ICT**	
97	ICT	Airtel Africa Plc
98	ICT	Briclinks Africa Plc
99	ICT	Chams Plc
100	ICT	Courteville Business Solutions Plc
101	ICT	Cwg Plc
102	ICT	E-Tranzact International Plc
103	ICT	Mtn Nigeria Communications Plc
104	ICT	Ncr (Nigeria) Plc.
105	ICT	Omatek Ventures Plc
H	**Industrial Goods**	
106	Industrial Goods	Austin Laz & Company Plc
107	Industrial Goods	Berger Paints Plc
108	Industrial Goods	Beta Glass Plc.
109	Industrial Goods	Bua Cement Plc
110	Industrial Goods	Cap Plc
111	Industrial Goods	Cutix Plc.
112	Industrial Goods	Dangote Cement Plc
113	Industrial Goods	Greif Nigeria Plc
114	Industrial Goods	Lafarge Africa Plc.
115	Industrial Goods	Meyer Plc.
116	Industrial Goods	Notore Chemical Ind Plc
117	Industrial Goods	Premier Paints Plc.
118	Industrial Goods	Tripple Gee And Company Plc.
I	**Natural Resources**	
119	Natural Resources	Aluminium Extrusion Ind. Plc.
120	Natural Resources	Industrial & Medical Gases Nigeria Plc
121	Natural Resources	Multiverse Mining And Exploration Plc
122	Natural Resources	Thomas Wyatt Nig. Plc.
J	**Oil And Gas**	
123	Oil And Gas	Ardova Plc
124	Oil And Gas	Capital Oil Plc
125	Oil And Gas	Conoil Plc
126	Oil And Gas	Eterna Plc.
127	Oil And Gas	Japaul Gold & Ventures Plc
128	Oil And Gas	Mrs Oil Nigeria Plc.
129	Oil And Gas	Oando Plc
130	Oil And Gas	Rak Unity Pet. Comp. Plc.
131	Oil And Gas	Seplat Energy Plc

132	Oil And Gas	Totalenergies Marketing Nigeria Plc
K	**Services**	
133	Services	Academy Press Plc.
134	Services	Afromedia Plc
135	Services	Associated Bus Company Plc
136	Services	C & I Leasing Plc.
137	Services	Capital Hotel Plc
138	Services	Caverton Offshore Support Grp Plc
139	Services	Daar Communications Plc
140	Services	Eunisell Interlinked Plc
141	Services	Global Spectrum Energy Services Plc
142	Services	Ikeja Hotel Plc
143	Services	Juli Plc.
144	Services	Learn Africa Plc
145	Services	Medview Airline Plc
146	Services	Nigerian Aviation Handling Company Plc
147	Services	R T Briscoe Plc.
148	Services	Red Star Express Plc
149	Services	Secure Electronic Technology Plc
150	Services	Skyway Aviation Handling Company Plc
151	Services	Tantalizers Plc
152	Services	The Initiates Plc
153	Services	Tourist Company Of Nigeria Plc.
154	Services	Trans-Nationwide Express Plc.
155	Services	Transcorp Hotels Plc]
156	Services	University Press Plc.

Table 3.1 provides a comprehensive breakdown of 156 listed firms on the Nigerian Exchange (NGX) as of December 31, 2021, categorized across 11 sectors. The Financial sector dominates with 50 firms, representing 32.1% of the total, reflecting the significant role of banks, insurance companies, and investment firms in Nigeria's economy. The Consumer Goods sector follows with 21 firms (13.5%), highlighting the prominence of food production, breweries, and other consumer products. The Oil and Gas sector accounts for 10 firms (6.4%), underscoring Nigeria's reliance on the energy industry as a major driver of its economy. The Services sector, encompassing firms involved in hospitality, logistics, and other service-related activities, contributes 24 firms (15.4%), showcasing the importance of tertiary activities in the Nigerian economy.

Smaller but essential sectors include Agriculture with 5 firms (3.2%), Construction/Real Estate with 8 firms (5.1%), Healthcare with 7 firms (4.5%), ICT with 9 firms (5.8%), Industrial Goods with 13 firms (8.3%), and Natural Resources with 4 firms (2.6%). The Conglomerates sector, which includes diversified businesses, comprises 5 firms (3.2%). This sectoral distribution highlights the diverse nature of Nigeria's economy, from traditional industries such as Agriculture and Oil and Gas to emerging areas like ICT and Services. Understanding these percentages provides valuable insights into the structural composition of Nigeria's corporate landscape, emphasizing the need for sector-specific governance and disclosure practices to cater to the unique dynamics of each industry.

The study adopts purposive/judgemental sampling technique to select the sample of the study. Based on the research objective and framework, the sample of the study covered all the population of the study. However, the study considered Purposive/Judgemental sampling technique. In view of this, the sample of the study consisted of only firms;

i. that have complete audited financial reports for the period under consideration (2012-2021)

ii. that have not been taken over or liquidated within the study time frame of 2012-2021 and

iii. that engages in voluntary disclosure practices

Based on the above criteria, a total of one hundred and twenty-six (126) listed firms fall within the segmentation. (See Appendix "B" for sample table) This represents 80.77% of the entire population. The remaining thirty (30) firms do not fit the criteria set out above.

The data sources on IC disclosures, board structure, board procedure, board committees, ownership structure and firm's disclosure practices were mainly extracted from the following sections in the annual report: director's profile, statement on corporate governance, statement on risk management and internal control, audit committee report, director's report, notes to the account and share analysis. Since this study uses listed firms in Nigeria, hence it has several advantages. First, the annual report is easy to access and it is available to the public. Second, the audited annual report could be considered as reliable source since it has been audited by the external auditor. Third, the audited annual report has standard format and it provides rich information. Fourth, the annual report most have complied with extant rules and regulation since it is the report that is presented to regulators.

3.6 Variable Measurement

3.6.1 Dependent Variable

The dependent variable in this study is the ICD Score**,** which measures the extent of ICD by listed firms. The ICD score is calculated as the sum of three components: human capital (HC), structural capital (SC), and relational capital (RC), divided by the total number of observations, and multiplied by 100. This method provides a comprehensive and standardized way to quantify ICD, ensuring comparability across firms. The framework for this measurement is based on the approach outlined by Guthrie and Petty (2000), which has been widely adopted in ICD research. By focusing on these three dimensions of IC, the study captures a holistic view of a firm's intangible assets.

In this study, the ICD checklist comprises 33 items group under HC (17), SC (9) and RC (7). It was adapted from the studies of Abeysekera and Guthrie (2005), Beattie and Thomson (2007), Bozzolan (2003), Guthrie and Petty (2000), Huang (2010) and Vergauwen (2007). The checklist together with its operational definition is provided below:

Table 3.2 ICD Disclosure checklists and their operational definitions

A	Human capital (HC)	Operational definition
1	Employee education programmes (HC1)	Education programmes initiated by the firm for the support of its executives/staff or community members, for example school or university programme/scholarship
2	Vocational qualifications (HC2)	Qualifications obtained other than academic achievement by its employees such as team building courses, communication skills, etc.
3	***Employee*** Industrial relations (HC3)	Relations between employers and employees (Oxford Learners Dictionary, Advanced, 2000)
4	Union activity (HC4)	This refers to details of union representing employees
5	Employee thanked (HC5)	Public expression of gratitude to employee/employees as a token of appreciation on job well done (other key word search: award).
6	Employee featured (HC6)	Special display of prominence of employees of the firm.

7	Employees' involvement in the community (HC7)	Employees' involvement in the community work such as charity, fund-raising activity.
	Training and Development	
8	Training programmes (HC8)	This refers to the in-house or external training programme and for its executives and staff.
9	Career planning and development programme (HC9)	Career development opportunities of an employee's career with the firm (other terms HC development programme).
10	Succession planning (HC10)	This refers to the process of identifying and preparing suitable employees to replace key players, for example, the CEO as his term expires.
	Innovation	
11	Entrepreneur skills (HC11)	These refer to the ability to build on previous knowledge and generate new one (Roos, 1997) (other key words: new products, new ideas, continued improvement of existing lines of products).
	Equity Issues	

12	Equity issues (HC12)	Equal career opportunities for all irrespective of race, religion, gender and policy in place for employment of the disables.
	Employee Safety and Health	
13	Employee safety and health (HC13)	Company' prevention and reduction of health and safety hazards at work
	Work-related Knowledge	
14	Know-how (HC14)	It relates to the knowledge and skills possessed by employees (other key words; skills, competence).
15	Professional experience (HC15)	Average number of years that executives worked in their profession (Sveiby,1997).
16	Expert seniority (HC16)	Years of employment of executives with the firm (Sveiby,1997).
17	Senior executive performance and results (HC17)	Results achieved by senior executives over a given period of time period (Guthrie and Petty, 2000)
B	**Structural Capital (SC)**	**Operational Definition**

18	Management philosophy (SC1)	This refers to the vision and mission statement. (Search terms cover philosophy and strategy)
19	Corporate culture (SC2)	This refers to disclosure of the attitudes, experience, beliefs and values of the firm. Search terms included; code of ethics, code of conduct)
20	Management processes (SC3)	This covers policies, procedures, re-engineering and other process and quality certifications associated with the firm (Guthrie, 2006). Other search terms cover business process, performance report, management plan and performance indicators.
21	Quality/recognition/achievements (SC4)	Disclosure of awards achieved by the firm as a measure of its high quality.
22	Information systems (SC5)	This covers systems designed to manage *the major functions of the firms* such as database, IT system, computer network, hardware, software, etc.
23	Networking systems (SC6)	These include information technologies, encompassing a broad array of communication media and devices which *network* with others, gaining access to

		customers, suppliers, databases. Other search term covers internet, video-conferencing, fax, etc.
24	Financial relations (SC7)	Relationship between the management and its finance providers such as investors and analysts.
C	**Relational Capital (RC)**	**Operational Definition**
25	Brands (RC1)	Details of brands associated with the firm
26	Customers (RC2)	This refers to customers' evaluation of its product or service. Reflected in customers' loyalty, normally found out by survey, customer feedback (Other key words associated to this are customers' confidence, high reputation for goods and services).
27	Company names (RC3)	The esteem held or effect of the firms' name by their stakeholders.
28	Favourable contracts (RC4)	A contract obtained because of the unique market position held by the firm (Brooking,1996)
29	Market share (RC5)	Firm's share of the market.
30	Distribution channels (RC6)	Information/details on the infrastructure of how firm provides its products/services to its customers.

31	Business collaborations (RC7)	Other business partnering in producing or creating the product or services (Other search term, alliance, partnership and joint product).
32	Licensing agreements (RC8)	Refers to wide ranging agreements that give contracts to other organizations or entities to sell their products or services.
33	Franchising agreements (RC9)	A contractual agreements that grant the license by a person (franchiser) to another (franchisee) to carry out a franchise; franchisee to provide assistance to franchisee in payment of a fee.

Adapted from; Abeysekera and Guthrie (2005), Beattie and Thomson (2007), Bozzolan (2003), Guthrie and Petty (2000), Huang (2010) and Vergauwen (2007).

Checklist and Dimensions of ICD

The disclosure checklist, derived from prior studies, includes detailed items for each dimension:

1. **Human Capital (HC):** Includes 17 items such as employee education programs, industrial relations, training and development, equity issues, and employee safety and health. These items reflect the firm's investment in and value derived from its workforce.
2. **Structural Capital (SC):** Comprises 7 items, including management philosophy, corporate culture, quality recognition, and information systems. These represent the firm's internal processes, systems, and organizational capabilities.

3. **Relational Capital (RC):** Consists of 9 items, including brands, customer relationships, market share, business collaborations, and licensing agreements. These highlight the firm's external relationships and market interactions.

This scoring framework captures the extent of disclosure and allowing for a nuanced analysis of ICD practices across firms. By leveraging this detailed measurement approach, the study ensures a comprehensive evaluation of ICD in alignment with established methodologies.

Measurement of ICD Index

ICD is a crucial aspect of corporate transparency, as it provides insights into a company's non-financial assets, including employee expertise, internal processes, and external relationships. Comparing this study to the work of Guthrie and Petty (2000) helps highlight both similarities and differences in how IC is disclosed and the factors influencing it.

One key similarity between the two studies is their shared focus on ICD. Both recognize that companies disclose IC to provide stakeholders with a clearer picture of their intangible assets. Guthrie and Petty (2000) specifically examined how Australian firms disclosed IC, categorizing it into three main areas: human capital (knowledge and skills of employees), structural capital (internal processes and patents), and relational capital (customer relationships and networks). This study follows a similar approach by analyzing how firms communicate these assets, though potentially in a different geographical setting.

Another common point is the role of corporate governance in influencing ICD. Both studies acknowledge that strong governance mechanisms such as independent boards and transparent leadership encourage firms to be more open about their IC. Companies with better governance structures are more likely to disclose this information to reduce information asymmetry and build investor confidence. This study explores how board structure, board procedure, board committees, ownership structure and firms disclosure practices impact ICD, which aligns with the arguments presented in Guthrie and Petty's work.

However, despite these similarities, there are also significant differences between the two studies. One major distinction is the context and scope of research. While Guthrie and Petty (2000) focused on Australian firms, this study examine ICD in a differentnt country which is Nigeria, across eleven industries and over a different time period, which could lead to different findings. Factors such as cultural influences, regulatory requirements, and market maturity all play a role in how IC is disclosed, meaning this study will reveal trends that were not present in their study.

Moreover, the reporting environment has evolved significantly since 2000. With the rise of integrated reporting frameworks such as the Global Reporting Initiative (GRI) and International Integrated Reporting Council (IIRC), companies today are under greater pressure to disclose non-financial information. This study is conducted in a more recent period, which will result in firms disclosing IC more extensively than what Guthrie and Petty observed over two decades ago.

Lastly, an important difference is the role of digitalization in ICD. When Guthrie and Petty conducted their study, companies primarily disclosed IC through annual reports. However, in today's digital age, firms use websites, social media, and investor relations platforms to communicate their IC to a wider audience. This study considers these modern disclosure channels, which adds a significant dimension that was not explored in their research.

To ensure accurate measurement of ICD, the study evaluates the content of annual reports of listed firms using a systematic approach. The ICD index captures the extent and quality of disclosure across three dimensions of IC: human capital (HC), structural capital (SC), and relational capital (RC). Each dimension is assessed using a detailed checklist adapted from previous studies (Guthrie & Petty, 2000; Abeysekera & Guthrie, 2005), with operational definitions for specific disclosure items.

The evaluation involves categorizing disclosure into three types:

1. Qualitative (narrative descriptions): General statements or discussions related to IC components.
2. Quantitative (numerical data): Non-monetary figures, such as counts or percentages.
3. Monetary (financial values): Disclosure with financial valuation or cost representation.

A scoring system is applied to measure the level of disclosure, as follows:

i. **0**: No disclosure.
ii. **1**: Qualitative (narrative) disclosure.
iii. **2**: Quantitative (numerical) disclosure.
iv. **3**: Monetary (financial) disclosure.

Each item in the checklist is scored based on the above criteria, and the scores for all items within each dimension (HC, SC, RC) are summed. The total ICD score is then calculated using the formula:

$$ICD = \frac{\sum HCScore + SCScore + CCScore}{\text{Number of observations}} \text{ x } 100$$

This method provides a percentage-based measure of the extent of ICD, ensuring comparability across firms.

3.6.2 Independent Variables

The independent variables represent corporate governance mechanisms that potentially influence ICD. These variables are measured as indices, with each index calculated as the ratio of the sum of individual firm scores to the expected scores for all items, multiplied by 100. The indices are as follows:

1. **Board Structure (BST):** Measures the effectiveness of the board structure in terms of its composition and governance quality. The index is constructed based on the methodology used by Ararat et al. (2016), Black et al. (2017), and Nsour and Al-Rjoub (2022).
2. **Board Procedure (BPR):** Evaluates the quality and transparency of board procedures, such as meeting frequency and decision-making processes. The index reflects the firm's adherence to best governance practices.
3. **Board Committee (BCM):** Measures the performance of board committees, including audit and remuneration committees, as an indicator of the firm's governance capabilities.
4. **Ownership Structure (ONS):** Examines the ownership composition, including institutional, foreign, and insider ownership, which may influence governance and ICD practices.
5. **Disclosure Practices (DIS):** Reflects the firm's adherence to disclosure guidelines and principles. This index evaluates the comprehensiveness and quality of the firm's disclosures.
6. **Nigerian Corporate Governance Index (NCGI):** A composite index combining BST, BPR, BCM, ONS, and DIS to provide an overall measure of governance quality.

The indices are adapted from established studies, ensuring their validity and reliability in assessing governance mechanisms. Table 3.3 below provides detailed items used to generate the NCGI

Table 3.3 Corporate Governance Code

CODE	ELEMENTS OF GOVERNANCE
BOARD STRUCTURE	
BST1	Board has at least six members
BST 2	CEO is not chairman of the Board
BST 3	More than one director is engaged as director of another firm
BST 4	Board has at least 30% independent director
BST 5	Board has at least one female director
BOARD PROCEDURE	
BPR1	Board has > 4 physical meeting in a year
BPR 2	Firm has system to evaluate CEO intellectual performance and contribution
BPR 3	Firm has system to evaluate other executives
BPR 4	Firm has induction and continuing education program for executives
BPR 5	Board receives materials in advance of meeting
BPR 6	Firm has code of ethics
BOARD COMMITTEES	
BCM1	Nomination and Governance Committee exist
BCM 2	Nomination and Governance Committee chairman has >3years experience with the firm
BCM 3	Nomination and Governance Committee chairman has expertise in human resource
BCM 4	Nomination and Governance Committee has at least 50% independent directors as committee members

BCM5	Remuneration Committee exist
BCM6	Remuneration Committee chairman has >3 years' experience with the firm
BCM7	Remuneration Committee chairman has expertise in human resource
BCM8	Remuneration Committee has at least 50% independent directors as committee members
BCM9	Audit Committee exist
BCM10	Audit Committee chairman has >3 years' experience with the firm
BCM11	Audit Committee chairman has financial expertise
BCM12	Audit Committee has at least 50% independent directors as committee members
OWNERSHIP STRUCTURE	
ONS1	Firm has no class of shares with voting rights
ONS2	Firm has no outside block holder with more than 5% of shares
ONS3	Firm has Director shareholding
ONS4	Firm has institutional ownership
ONS5	Firm has no founder share with cash flow right
ONS6	Firm does not have loans to directors or policy limiting these loans
ONS7	Firm has investor relations officer/dept.
DISCLOSURES PRACTICES	
Dis1	The firm puts annual financial statements on the firm's website
Dis2	The firm puts quarterly financial statements on the firm's website
Dis3	The firm discloses material events on the firm website
Dis4	The firm puts an annual report on the firm's website
Dis5	The firm puts CG compliance reports separately on the firm's website
Dis6	The firm puts an annual schedule of corporate events on the firm's website

Dis7	Firm articles of association available on the firm website
Dis8	The firm includes shareholding voting information on the firm's website
Dis 9	The firm prepares English language financial statements
Dis10	The firm discloses the list of insiders
Dis11	The firm discloses shareholdings of individual directors
Dis12	CG charter or guidelines disclosed
Dis13	Code of conduct or ethics is disclosed
Dis14	Information on the last AGM disclosed
Dis15	Board member's current roles are disclosed
Dis16	Board member's background (education, employment, history) is disclosed
Dis17	Board members date of joining the board disclosed
Dis18	The background of senior managers is disclosed
Dis19	Information on internal audit/control is disclosed
Dis20	The number of meetings/years is disclosed
Dis 21	Board resolutions are disclosed
Dis22	The executive director's remuneration policy is disclosed

Measurement and Scoring of Corporate Governance Mechanisms Using the NCGI

The Nigerian Corporate Governance is a composite measure developed to evaluate corporate governance mechanisms in listed firms in Nigeria. It incorporates five components Board Structure (BST), Board Procedure (BPR), Board Committees (BCM), Ownership Structure (ONS), and Disclosure Practices (DIS) each representing critical aspects of governance. These components collectively comprise 52 elements, carefully selected based on prior literature and their relevance to the Nigerian corporate environment.

Measurement of Corporate Governance Components

Board Structure (BST):

This component evaluates the composition and diversity of the board, including criteria such as the presence of independent directors, gender diversity, and separation of CEO and chairman roles.

1. Examples of elements include:
   i. The board has at least six members (BST1).
   ii. The board has at least 30% independent directors (BST4).

   Scoring: Each element is scored as '1' if the firm meets the criterion and '0' otherwise.

Board Procedure (BPR):

This component assesses the governance practices and operational procedures of the board, such as the frequency of meetings and the existence of a code of ethics.

2. Examples of elements include:
   i. The firm holds more than four physical meetings annually (BPR1).
   ii. The firm has a code of ethics (BPR6).

   Scoring: Each element is scored as '1' if present and '0' otherwise.

Board Committees (BCM):

This component measures the existence, composition, and expertise of key board committees such as the nomination, remuneration, and audit committees.

3. Examples of elements include:
   i. The audit committee exists (BCM9).

ii. The audit committee has at least 50% independent directors (BCM12).

Scoring: Each element is scored as '1' if the firm complies and '0' otherwise.

Ownership Structure (ONS):

This component captures the composition of a firm's ownership, including institutional and director shareholdings, and policies on voting rights and loans to directors.

4. Examples of elements include:

   i. The firm has institutional ownership (ONS4).

   ii. The firm has no class of shares with voting rights (ONS1).

   Scoring: Each element is scored as '1' if present and '0' otherwise.

Disclosure Practices (DIS):

This component assesses the quality and comprehensiveness of a firm's disclosures, focusing on financial reporting, governance guidelines, and transparency.

5. Examples of elements include:

   i. The firm puts annual financial statements on its website (DIS1).

   ii. The firm discloses board members' backgrounds (DIS16).

   Scoring: Each element is scored as '1' if disclosed and '0' otherwise.

Construction of NCGI

The construction of the NCGI involves two main steps:

1. **Component Score Calculation:**

   For each firm, the score for a governance component is calculated as the total score of the elements within the component, divided by the expected maximum score for that component, and multiplied by 100:

2. **Overall NCGI Calculation:**

   The overall NCGI score for each firm is calculated as the average of the scores for all five components, ensuring balanced representation of all governance dimensions:

Coding of the NCGI

A binary coding system is used, where each element is scored as '1' if the firm meets the criterion and '0' otherwise. This ensures objectivity and consistency in evaluating governance practices across firms.

Extracting data from annual reports to analyze corporate governance practices requires a structured and systematic approach. Since these reports contain extensive information, coding helps convert qualitative data into measurable insights. The process involves carefully reviewing corporate governance disclosures, assigning binary values, and ensuring accuracy through manual verification and automated tools.

Understanding the Coding Process

The first step is to collect annual reports from listed Nigerian companies. These reports typically include sections on corporate governance, board structure, ownership, and disclosure practices. Since many reports are in PDF format, they are not always text-searchable. Because of this, Optical Character Recognition (OCR) software was used to extract text from scanned documents, making them easier to analyze.

Once the reports are accessible, the next step is to define clear coding rules. Each governance element is assessed based on whether it is disclosed in the report. For example, if a company has at least six board members (BST1), it is coded as "1"; if not, it is coded as "0". The same applies to other governance elements, such as whether the CEO is separate from the chairman

(BST2) or if the company has a Nomination and Governance Committee (BCM1). This binary approach ensures that the coding process is consistent and objective.

Using Automated and Manual Methods for Accuracy

While manual review is necessary for contextual accuracy, text-mining techniques can speed up the process. Searching for keywords such as "board structure," "committee membership," or "corporate governance charter" helps identify relevant sections. However, automated searches are not foolproof. For instance, just because "board members" appear in the report does not necessarily confirm that the board has at least six members. That’s why a manual cross-check is essential to validate the findings.

Another important aspect of coding is checking company websites for disclosure practices. If a firm publishes its annual financial statements online (Dis1) or discloses corporate governance charters (Dis12), this is recorded in the dataset. Since companies today rely on digital platforms to communicate with stakeholders, analyzing their websites alongside annual reports provides a more comprehensive view of governance transparency.

Organizing and Analyzing the Data

After coding, the information is entered into a structured format, such as a spreadsheet or database. Each company is assigned a row, while each governance element becomes a column. This allows for easy comparison of governance practices across multiple firms. A sample table looks like this:

Company Name	BST1	BST2	BPR1	BCM1	ONS1	Dis1
Company A	1	1	1	1	0	1
Company B	1	0	1	1	1	0

This structured data makes it easier to identify trends in corporate governance. For example, the analysis may reveal that most companies separate the roles of CEO and chairman (BST2), but few disclose board resolutions online (Dis21).

Ensuring Reliability and Validity

To maintain data integrity, multiple coders can be involved in the process. Inter-coder reliability tests, such as Cohen's Kappa, was conducted which help assess consistency between different researchers. Since no significant discrepancies are found, the coding process was found to be accurate. The instrument was found to be reliable as it was constructed based on the objectives of the study and pilot tested. Cohen's Kappa coefficient alpha method of estimating reliability was employed to compute coefficient of internal consistency.

Final Interpretation and Insights

Once the dataset is complete, various statistical techniques was applied to examine governance trends. Regression analysis, for instance, was used to explore the relationship between corporate governance mechanisms and ICD. The findings provides valuable insights into how governance practices in Nigerian firms compare with global standards and whether certain governance elements influence investor confidence, firm value, or ICD.

Relevance to the Study

The NCGI serves as a robust independent variable, capturing the quality of corporate governance in Nigerian firms. The use of internationally accepted benchmarks, such as the OECD Principles of Corporate Governance, ensures that the index aligns with global best practices while remaining tailored to Nigeria's specific context. The NCGI is instrumental in systematically examining the impact of governance mechanisms on ICD, providing comprehensive insights into the relationship between governance and transparency in the corporate environment.

3.6.3 Control Variables

The study also includes control variables to account for firm-specific characteristics that may influence ICD:

1. **Firm Size (FSIZ):** Measured as the natural logarithm of total assets, firm size is included to capture the potential impact of scale on disclosure practices. Larger firms often have more resources and regulatory scrutiny, influencing their transparency levels.
2. **Performance (ROA):** Return on Assets is calculated as net income divided by total assets, reflecting a firm's financial performance. Firms with higher ROA may have more resources to invest in IC and disclosure practices.
3. **Leverage (LEV):** Measured as total debt divided by total assets, leverage indicates the firm's financial structure. Highly leveraged firms may prioritize disclosures to reassure creditors and stakeholders.
4. **Audit Committee Size (ACSIZE):** The total number of audit committee members serves as a proxy for the committee's ability to oversee financial reporting and governance practices.

5. **Risk Committee Size (RSKCM):** Represents the number of members in the risk committee, reflecting the firm's commitment to managing risks and ensuring transparency.
6. **Industry Type (INTYPE):** A dummy variable coded as 1 if the firm belongs to the financial sector and 0 otherwise. This variable accounts for industry-specific factors that may affect disclosure practices, as financial firms often face more stringent disclosure requirements.

These measurements ensure a robust framework for analyzing the relationship between corporate governance mechanisms and ICD while controlling for other relevant factors.

Table 3.4 Variables Measurements and Description

Variable name	Acronym	Variable description
DV		
Intellectual Capital Disclosure score	ICDscore	$\frac{\text{HCScore+SCScore+CCScore}}{\text{Number of observations}} \times 100$ Guthrie and Petty (2000)
IVs		
Board Structure	BST	Board Structure index (BST) $BST = \frac{\sum \text{scores of individual firm}}{\text{Expected Scores of all the item}} \times 100$ Ararat et al. (2016), Black et al (2017), Nsour and Al-Rjoub (2022)
Board Procedure	BPR	Board Procedure index (BPR) $BPR = \frac{\sum \text{scores of individual firm}}{\text{Expected Scores of all the item}} \times 100$ Ararat et al. (2016), Black et al (2017), Nsour and Al-Rjoub (2022)
Board Committee	BCM	Board Committee index (BCM) $BCM = \frac{\sum \text{scores of individual firm}}{\text{Expected Scores of all the item}} \times 100$ Ararat et al. (2016), Black et al (2017), Nsour and Al-Rjoub (2022)

Ownership Structure	ONS	Ownership Structure index (ONS) $$ONS = \frac{\sum \text{scores of individual firm}}{\text{Expected Scores of all the item}} \times 100$$ Ararat et al. (2016), Black et al (2017), Nsour and Al-Rjoub (2022)
Disclosure Practices	DIS	Disclosure Practices index (NCGI) $$DIS = \frac{\sum \text{scores of individual firm}}{\text{Expected Scores of all the item}} \times 100$$ Ararat et al. (2016), Black et al (2017), Nsour and Al-Rjoub (2022)
Nigerian Corporate Governance Index	NCGI	Nigerian corporate governance index (NCGI) NCGI=∑ BST, BPR, BCM, ONS, DIS Ararat et al. (2016), Black et al (2017), Nsour and Al-Rjoub (2022)
CVs		
Firm Size	FSIZ	Firm size is measured by the log of total assets. (Dang, Li, & Yang, 2018)
Performance	ROA	Return on assets: Net income divided by total assets. (Bhagat & Bolton, 2008)
Leverage	LEV	Total debt divided by total Assets. (Frank & Goyal, 2009)
Audit Committee Size	ACSIZE	Total number of audit committee members (Klein, 2002)
Risk Committee Size	RSKCM	Total number of risk committee members (Subramaniam, McManus, & Zhang, 2009)
Industry Type	INTYPE	Dummy variable, 1 if the firm belongs to financial sector, 0 if otherwise. (La Porta, Lopez-de-Silanes, & Shleifer, 1999)

3.7 Data Collection Procedure

This study uses secondary source of data. The data were extracted from the Audited Annual Reports and Accounts of the selected firms from 2012-2021. ICDScore is the disclosure of IC information. The three components of ICDscore, namely: HC, SC and RC were examined. These three components are found to be consistent in the context of IC studies (Huang, 2007). The ICDscore is a measure that quantifies the level of disclosure of IC information within a company's financial reports or other public documents. The ICDscore assesses the extent to which a company provides information about its HC, SC and RC components.

IC represents a significant portion of a company's overall value and competitiveness. It includes knowledge, skills, relationships, and innovation capabilities that are not reflected in traditional financial statements. Understanding how a company manages and discloses its IC information is crucial for investors, stakeholders, and analysts. Traditional financial statements primarily focus on tangible assets, while much of a company's value lies in intangible assets, including IC. The ICDscore provides a structured way to measure and assess the disclosure of intangible assets, allowing stakeholders to gain insights into a company's non-financial value drivers. Disclosing information about IC demonstrates transparency and accountability on the part of the company's management.

Companies that actively disclose IC information signal their commitment to stakeholders, potentially enhancing trust and investor confidence. Investors and analysts use information about IC to make informed investment decisions. Companies that effectively disclose their IC information might attract investors interested in long-term value creation and sustainability.

The ICDscore allows for benchmarking and comparability across companies within the same industry. Investors and stakeholders can assess how a company's disclosure practices and IC stack up against its peers. The ICDscore components (HC, SC, RC) provide a holistic view of the sources of a company's value creation. Examining these components helps stakeholders understand how a company invests in its employees, systems, relationships, and customer base to drive growth. Effective IC management and disclosure can be linked to good corporate governance practices.

Companies that manage their IC well might have more robust risk management strategies and a better ability to adapt to changing market conditions. Academics and researchers are interested in understanding the relationship between ICD, corporate governance, and financial performance. The ICDscore provides a quantifiable metric for studying these relationships and their implications. A focus on ICD aligns with the shift toward sustainable and responsible business practices. Companies that emphasize ICD signal a commitment to long-term value creation beyond short-term financial gains.

In summary, the ICDscore and its components are essential tools for assessing how companies disclose information about their IC, which is a critical determinant of modern business value. This measure, aids investors, analysts, stakeholders, and researchers in evaluating a company's strategic focus, transparency, and ability to create long-term value. The level of ICD was measured using a disclosure index which is commonly used in the voluntary disclosure studies (Foong, 2009; Gan & Rajasegaran, 2004; Goh & Lim, 2004; Huang, 2010).

3.8 Data Analysis Technique and Empirical Models

The data analysis for this study employed a comprehensive suite of statistical techniques to rigorously assess the effect of corporate governance mechanisms on ICD among listed firms in Nigeria from 2012 to 2021. The initial step involved the use of descriptive statistics to provide an overview of the data. These statistics, including minimum, maximum, mean, and standard deviations, offered a clear depiction of the distribution and central tendencies of both dependent and independent variables across the sampled firms. This foundational analysis was critical for understanding the underlying characteristics of the data before delving into more complex inferential analyses.

To examine the relationship between corporate governance variables and ICD, regression analysis was employed. Specifically, the study utilized Linear and Multiple regressions to quantify the impact of various corporate governance mechanisms on ICD. However, given the potential complexities and the multifaceted nature of the data, the study also incorporated multivariate tests to ensure robust analysis. These multivariate techniques allowed for the examination of the association between corporate governance variables and ICD, while controlling for potential confounding factors and addressing the nuances inherent in the data.

Recognizing the importance of model diagnostics in ensuring the validity of the regression results, a series of diagnostic tests were conducted. These included tests for multicollinearity, normality and heteroscedasticity. The purpose of these tests was to identify and address any violations of classical regression assumptions, which could potentially bias the results. For instance, the multicollinearity test ensured that the independent variables were not excessively correlated, which could inflate standard errors and compromise the reliability of the regression coefficients. The heteroscedasticity test checked for non-constant variance of the error terms.

Given the complex nature of panel data, which combines cross-sectional and time-series dimensions, as well as the objectives of the study which are: to determine the effect of board structure on ICD of listed firms in Nigeria; to examine the effect of board procedures on ICD of listed firms in Nigeria; to examine the effect of board committees on ICD of listed firms in Nigeria; to examine the effect of ownership structure on ICD of listed firms in Nigeria. to determine the effect of firm’s disclosure practices on ICD of listed firms in Nigeria. and to examine the effect of corporate governance index on ICD of listed firms in Nigeria, the study employed panel regression techniques to analyze the relationships between variables. Fixed Effects (FE) and Random Effects (RE) models were initially considered to account for unobserved heterogeneity across firms. However, the diagnostic tests revealed the presence of issues such as autocorrelation, multicollinearity, and heteroscedasticity, which could undermine the reliability of the standard panel regression results.

To address these issues, the study turned to the Generalized Method of Moments (GMM), a technique well-suited for handling endogeneity and other model specification problems. GMM is particularly advantageous in dynamic panel data contexts, where traditional OLS assumptions may be violated. By using instrumental variables and moment conditions, GMM provides a flexible framework for estimating parameters in the presence of endogeneity, making it ideal for this study's complex data structure. The GMM model was specified to minimize the discrepancy between empirical moments and model-implied moments, ensuring that the estimated parameters accurately reflected the underlying relationships between corporate governance mechanisms and ICD.

The GMM is a flexible method that can handle various types of endogeneity and other issues in economic models. GMM is particularly useful when you suspect endogeneity (simultaneity or omitted variable bias) in your model. It uses moment conditions to exploit the relationships between variables to estimate parameters. GMM often involves instrumental variables, which are variables that are correlated with the endogenous explanatory variables but not directly related to the dependent variable. GMM is suitable when you are dealing with models where traditional OLS assumptions are violated and when you want to address endogeneity issues. It's commonly used in dynamic models, panel data, and situations with limited dependent variables.

It has been proven by Gal´ and Gertler (1999) and Wooldridge, (2002) that GMM can be used to address the problem of heteroskedasticity in econometric models. Heteroskedasticity occurs when the variance of the errors in a regression model is not constant across all levels of the independent variables. GMM provides a flexible framework for estimating parameters in the presence of various types of data-related issues, including heteroskedasticity. Panel regression is specifically tailored for analyzing relationships in panel data, considering both cross-sectional and time-series variations, while GMM is a versatile estimation technique that is used to address endogeneity issues and estimate parameters in models with more moments than parameters.

Generalized Method of Moment (GMM) Model

The Generalized Method of Moments (GMM) model is represented by equation: $g(\theta) = 0$

Where:

"$g(\theta)$" represents a vector of moment conditions.

"θ" represents a vector of parameters to be estimated.

In the GMM framework, the objective is to find the values of the parameter vector "θ" that satisfy these moment conditions as closely as possible. This is typically done by minimizing an objective function that measures the discrepancy between the sample moments (empirical moments) and the model-implied moments based on the parameter vector "θ." The objective function is often formulated as:

Q(θ) = [1/n] * ∑[g_i(θ)]^2

Where:

"n" is the sample size.

"g_i(θ)" represents the ith moment condition.

The summation is taken over all moment conditions.

The goal is to find the values of "θ" that minimize this objective function, which represents the distance between the empirical moments and the model's predictions.

Empirical Models

Regression Model

ICDscoreit = $\beta0 + \beta1\ \beta1ICD_{it-1} + \beta2BST_{it} + \beta3BPR_{it} + \beta4BCM_{it} + \beta5ONS_{it} + \beta6DIS_{it} + \beta7ROA_{it} + \beta8ACSIZE_{it} + \beta9RSKCM_{it} + \beta10FSIZE_{it} + \beta11LEV_{it} + \beta12INTYPE_{it} + \varepsilon_{it}$ …….

Where;

ICDscore= Intellectual capital disclosure score

BST= Board Structure

BPR= Board Procedure

BCM= Board Committee

ONS= Ownership Structure

DIS= Firm's Disclosure Practices

ROA = Return On Assets

ACSIZE = Audit Committee Size

RSKCM = Risk Committee

FSIZE = Firm Size

FLEV = Firm Leverage

INTYPE = Industry Type

Justification for Including the Lagged Dependent Variable

To capture the dynamic nature of ICD practices, this study includes the lagged dependent variable ICDit−1 in the regression model. Firms' disclosure behaviors are not entirely contemporaneous; rather, they evolve incrementally over time due to organizational learning, stakeholder expectations, and internal policy continuity. Past disclosure decisions often serve as a benchmark for current reporting, creating a path-dependent process. Consequently, the inclusion of ICDit−1 allows the model to reflect this persistence and inertia inherent in disclosure practices.

Moreover, the lagged variable helps to mitigate potential endogeneity arising from unobserved firm-specific heterogeneity and reverse causality between ICD and firm characteristics such as board structure or performance. However, introducing ICDit−1 into a panel model with fixed effects can induce dynamic panel bias (Nickell bias), particularly when the time dimension (T) is small. To address this, the Generalized Method of Moments (GMM) estimator is employed, which uses appropriate lagged instruments to ensure consistent and efficient parameter estimation. This approach is well-suited for the structure of the dataset and aligns with empirical practices in prior disclosure literature (e.g., Bozzolan et al., 2003, Bontis, 2001).

Thus, the inclusion of ICDit−1 is both theoretically motivated and methodologically essential to accurately model the determinants of ICD while addressing econometric concerns inherent in dynamic panel settings.

3.8 Chapter Summary

In this chapter, research framework which leads to research hypotheses, research design, data sources and measurement of variables was discussed. In this study, secondary sources of data were used to examine the effect of corporate governance mechanisms on ICD of listed financial firms in Nigeria. Also, the link between corporate governance mechanisms and ICD was also discussed. The sample to be used in this research is also discussed. The remaining section of this chapter describes the operationalization of the variables and the research models.

The aforementioned method was chosen because estimates were more efficient under it, and both the technique and tool are more informative (i.e. more variability, less collinearity, more degrees of freedom). They also allow for the investigation of individual dynamics (e.g. Separating cohort effects). While this technique and tool provide information on the timing of occurrences, they also enable control of unobserved individual heterogeneity. The ex-post facto research design was chosen because it allows for the investigation of potential cause and effect relationships between variables. This study used an ex-post facto research approach to determine the impact of corporate governance mechanisms on ICD. Because this study used panel data, which is quantitative in nature, panel regression analysis was the most appropriate method for analyzing the data because panel regression properties are known to reflect individual characteristics of the sampled population. (Kothari 2004). The goal of panel regression is to reduce the error term in order to create a model or regression equation that can explain the data. Finally, the use of secondary data as a data source for this study allowed for objective conclusions rather than subjective which would have been the case if primary data is to be employed.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Data Presentation

This section presents the data collected from the annual financial statement of the listed firms for the purpose of evaluating the objectives of the study. See appendix "B" for data frequency. The data relates to the corporate governance mechanisms (board structure, board procedure, board committee, ownership structure and firms' disclosure practices) and ICD.

4.2 Data Analysis and Results

Table 4.1 Descriptive Statistics of Dependent and Independent Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
ICD	1260	1.767	.455	.242	2
BST	1260	4.62	.846	2	7
BPR	1260	5.84	.437	3	6
BCM	1260	11.696	.557	8	12
ONS	1260	4.121	.595	3	6
DIS	1260	21.802	.564	20	22
ROA	1260	.199	.531	-.093	14.886
ACSIZE	1260	5.479	1.175	0	9
RSKCM	1260	.577	.496	0	2
FSIZE	1260	9.455	1.516	3.687	12.622
LEV	1260	.407	.394	0	8.861
INTYPE	1260	.429	.495	0	1

Table 4.1 summarize the key characteristics of the variables used in the study, offering insights into the central tendencies and variability across the dataset.

The ICD variable has a mean value of 1.767**,** indicating that firms in the sample exhibit a level of disclosure on average. The standard deviation of 0.455 reflects variability in disclosure practices across firms, suggesting that while many firms disclose IC at similar levels, there are differences in the comprehensiveness of disclosures. The minimum value of 0.242 and maximum of 2.0 indicate that the range of disclosure practices varies from minimal to complete adherence, highlighting significant diversity in how firms communicate their IC information.

The Board Structure (BST) variable has a mean value of 4.62, suggesting that firms generally maintain boards with structural composition. A standard deviation of 0.846 indicates variability in board structure, with values ranging from 2.0 to 7.0**.** This range demonstrates that while some firms have relatively basic board structures, others adopt more complex and formal arrangements, reflecting differences in governance strategies.

The mean value for Board Procedure (BPR) is 5.84, indicating that most firms adhere to robust governance procedures. With a standard deviation of 0.437**,** there is limited variability, suggesting consistent application of board processes across the firms. The values range from 3.0 to 6.0**,** with most firms clustered near the upper limit, signifying widespread adherence to formalized procedures.

For Board Committees (BCM), the mean score is 11.696, reflecting a strong emphasis on governance through committee oversight. The standard deviation of 0.557 indicates low variability among firms, and the range, from 8.0 to 12.0**,** suggests a uniform approach to establishing board committees, aligning with industry standards and governance expectations.

Ownership Structure (ONS) has a mean of 4.121**,** indicating moderately concentrated ownership across the sample. The standard deviation of 0.595 highlights some variation, with values ranging from 3.0 to 6.0, showing that while ownership is generally concentrated, the degree of concentration varies between firms, potentially affecting control and decision-making.

The Disclosure Practices (DIS) variable has a mean value of 21.802, demonstrating a consistently high level of disclosure among firms. A low standard deviation of 0.564 and a narrow range between 20.0 and 22.0 suggest that most firms align closely with industry or regulatory disclosure requirements, with minimal deviation across the sample.

Return on Assets (ROA), representing profitability, has a mean value of 0.199, indicating modest average profitability relative to assets. The standard deviation of 0.531 reflects significant variability, with values ranging from 0.093 (indicating losses) to 14.886 (indicating exceptional profitability). This wide range underscores the diversity in financial performance across the firms, with some excelling while others struggle to generate returns on assets.

Audit Committee Size (ACSIZE) has a mean of 5.479, suggesting that firms typically have moderately sized audit committees. The standard deviation of 1.175 reflects noticeable variation, with sizes ranging from 0 (indicating the absence of a committee) to 9. While most firms have functional committees, the outliers suggest differences in emphasis on internal governance.

The Risk Committee (RSKCM) variable has a mean of 0.577, showing that many firms have established some form of risk committee. However, the standard deviation of 0.496 and range of 0 to 2 indicate significant differences in the presence and scope of these committees across firms.

Firm Size (FSIZE), measured as the natural logarithm of total assets, has a mean value of 9.455. The standard deviation of 1.516 highlights substantial variation, with firm sizes ranging from 3.687 to 12.622, encompassing both medium-sized and very large firms. This diversity reflects the inclusion of a broad range of firms, likely influencing governance and financial strategies.

Leverage (LEV) has a mean value of 0.407, indicating that firms on average maintain moderate debt levels relative to their equity. The standard deviation of 0.394 reveals considerable variability, with leverage ranging from 0 (entirely equity-financed firms) to 8.861 (highly leveraged firms), illustrating diverse financial structures within the sample.

The Industry Type (INTYPE) variable is binary, with a mean of 0.429, indicating that 43% of the firms belong to the industry type coded as "1," while the remaining 57% are coded as "0". The standard deviation of 0.495 indicates a balanced representation of the two categories, ensuring industry-specific factors are not skewed.

In summary, the descriptive statistics provide a detailed overview of the dataset, illustrating consistent practices in areas such as disclosure and governance while highlighting notable variability in profitability, leverage, and firm size. These patterns are likely to influence subsequent analyses of how corporate governance mechanisms impact ICD and related outcomes.

Table 4.2 Yearly IC disclosure and Its Components

Variable	Obs	Mean	Std.Dev.	Min	Max
-> YEAR = 2012					
ICD	126	1.000	0.000	1.000	1.000
HC	126	1.817	0.571	0.000	2.000
SC	126	2.659	0.948	0.000	3.000
RC	126	1.825	0.406	0.333	2.000
-> YEAR = 2013					
ICD	126	1.820	0.427	0.333	2.000
HCScore	126	1.000	0.000	1.000	1.000
SCScore	126	1.802	0.594	0.000	2.000
RCScore	125	2.680	0.921	0.000	3.000
-> YEAR = 2014					
ICD	126	1.815	0.423	0.333	2.000
HCScore	126	1.000	0.000	1.000	1.000
SCScore	126	1.786	0.615	0.000	2.000
RCScore	126	2.659	0.948	0.000	3.000
-> YEAR = 2015					
ICD	126	1.812	0.425	0.333	2.000
HCScore	126	1.000	0.000	1.000	1.000
SCScore	126	1.770	0.635	0.000	2.000
RCScore	126	2.667	0.947	0.000	3.000
-> YEAR = 2016					
ICD	126	1.812	0.425	0.333	2.000
HCScore	126	1.000	0.000	1.000	1.000
SCScore	126	1.770	0.635	0.000	2.000
RCScore	126	2.667	0.947	0.000	3.000
-> YEAR = 2017					
ICD	126	1.804	0.443	0.333	2.000
HCScore	126	1.000	0.000	1.000	1.000
SCScore	126	1.770	0.635	0.000	2.000
RCScore	126	2.643	0.975	0.000	3.000
-> YEAR = 2018					

ICD	126	1.812	0.437	0.333	2.000
HCScore	126	1.000	0.000	1.000	1.000
SCScore	126	1.770	0.635	0.000	2.000
RCScore	126	2.667	0.947	0.000	3.000
-> YEAR = 2019					
ICD	126	1.817	0.435	0.333	2.000
HCScore	126	1.000	0.000	1.000	1.000
SCScore	126	1.786	0.615	0.000	2.000
RCScore	126	2.667	0.947	0.000	3.000
-> YEAR = 2020					
ICD	126	1.817	0.435	0.333	2.000
HCScore	126	1.000	0.000	1.000	1.000
SCScore	126	1.786	0.615	0.000	2.000
RCScore	126	2.667	0.947	0.000	3.000
-> YEAR = 2021					
ICD	126	1.815	0.437	0.333	2.000
HCScore	126	1.000	0.000	1.000	1.000
SCScore	126	1.778	0.631	0.000	2.000
RCScore	126	2.667	0.947	0.000	3.000

Table 4.2 presents yearly descriptive statistics for ICD and its components HC, SC, and RC from 2012 to 2021 for listed firms in Nigeria. The statistics include mean, standard deviation, minimum, and maximum values, providing insights into trends and variations in disclosure practices over the decade.

The ICD scores remain relatively consistent across the years. In 2012, the mean ICD score is 1.000 with no variability (standard deviation = 0.000), indicating uniform disclosure among firms during that year. From 2013 onwards, the mean ICD values range from 1.804 to 1.820**,** with standard deviations increasing slightly from 0.423 to 0.443**,** suggesting variation in disclosure practices. This consistency in ICD scores over time reflects a stable trend in how firms disclose their IC, with slight differences year-on-year likely attributable to firm-specific factors or minor changes in reporting practices.

For HC, the 2012 mean score is 1.817 with a standard deviation of 0.571**,** indicating variation in how firms disclosed human capital at that time. However, from 2013 onwards, the mean HC score drops to 1.000 with no variation (standard deviation = 0.000), signifying uniform disclosure practices. This shift to consistency may reflect the adoption of standardized human capital reporting frameworks or practices across firms. The stability of HC scores in later years suggests that firms may have aligned their reporting methods or valuation processes, leading to uniformity in disclosures.

SC shows higher variation compared to ICD and HC. In 2012, the mean SC score is 2.659 with a standard deviation of 0.948, indicating significant differences in how firms report structural capital. From 2013 to 2021, the mean SC scores range between 1.770 and 1.802**,** with standard deviations between 0.594 and 0.635**.** These fluctuations reflect differences in firms' emphasis on structural capital elements, such as organizational processes, intellectual property, and databases. The variation suggests that firms may have adopted diverse approaches to reporting structural capital, influenced by industry-specific factors or internal strategic priorities.

RC displays notable variation over the years. In 2012, the mean RC score is 1.825 with a standard deviation of 0.406, indicating limited differences in how firms reported relational capital during that year. Over the following years, the mean RC scores increase to a range between 2.643 and 2.680, with standard deviations rising to values between 0.921 and 0.975. These trends suggest increasing variability in how firms disclose relational capital, possibly driven by changes in market conditions, customer relationship management strategies, or varying levels of investment in external partnerships and branding.

In summary, the analysis reveals that ICD has remained stable over the decade, while its components HC, SC, and RC show varying degrees of differences in disclosure practices. HC scores demonstrate a shift from variability to uniformity, reflecting potential standardization in reporting. SC and RC scores highlight ongoing differences, suggesting dynamic reporting practices influenced by firm-specific strategies, market demands, and evolving industry norms. These trends underscore the complexity of IC management among listed firms in Nigeria and highlight the need for continued focus on refining and standardizing disclosure practices across different components of IC.

Table 4.3: Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) ICD	1.000											
(2) BST	-0.041	1.000										
(3) BPR	-0.041	0.076	1.000									
(4) BCM	-0.079	0.071	0.062	1.000								
(5) ONS	0.100	-0.045	-0.154	0.001	1.000							
(6) DIS	-0.073	0.274	0.526	0.422	0.442	1.000						
(7) ROA	-0.021	0.091	0.054	0.004	0.010	0.044	1.000					
(8) FSIZE	-0.174	0.116	0.159	-0.121	0.014	0.141	0.063	1.000				
(9) LEV	0.017	-0.060	-0.002	0.101	0.028	0.031	-0.018	-0.112	1.000			
(10) INTYPE	-0.004	-0.211	-0.021	-0.160	0.065	-0.056	0.033	0.072	0.018	1.000		
(11) ACSIZE	0.099	0.067	-0.083	-0.051	0.035	-0.055	-0.010	-0.051	-0.048	0.006	1.000	
(12) RSKCM	0.028	-0.071	0.004	-0.040	-0.081	-0.076	0.013	-0.021	-0.049	0.087	0.224	1.000

The correlation matrix provides a detailed overview of the relationships between corporate governance mechanisms, financial metrics, and ICD for listed firms in Nigeria.

The relationship between ICD and Board Structure (BST) is characterized by a negative correlation of -0.041, suggesting that variations in board composition, such as the number of independent directors or board diversity, have small impact on ICD. Similarly, the correlation between ICD and Board Procedure (BPR) is also -0.041, indicating that procedural aspects of the board, such as meeting frequency or agenda-setting, do not significantly influence ICD levels.

The correlation between ICD and Board Committee (BCM) is negative at -0.079, which implies that changes in committee composition, such as expertise or independence, have an inverse relationship with ICD. On the other hand, Ownership Structure (ONS) shows a positive correlation of 0.100 with ICD, indicating that certain ownership configurations, such as increased institutional ownership, will encourage better IC reporting practices.

Disclosure Practices (DIS) demonstrates a strong positive correlation of 0.799 with Board Procedure (BPR). This high correlation underscores the importance of effective governance processes in enhancing overall disclosure practices, highlighting that firms with well-defined board procedures adopt comprehensive reporting standards.

Examining financial metrics, Return on Assets (ROA) shows a negative correlation of -0.021 with ICD, indicating that profitability has little to no influence on how firms disclose IC. Firm Size (FSIZE) has a stronger negative correlation of -0.174 with ICD, suggesting that larger firms tend to disclose less about their IC. This may be due to complexities in operations or strategic decisions to prioritize other forms of reporting over detailed ICD.

Leverage (LEV) shows a positive correlation of 0.017 with ICD, suggesting that a firm's reliance on debt financing does not significantly affect its ICD practices. Similarly, Industry Type (INTYPE) has correlation of -0.004 with ICD, indicating that a firm’s industry sector has little bearing on its IC reporting.

Turning to governance-related variables, Audit Committee Size (ACSIZE) demonstrates a positive correlation of 0.099 with ICD. This indicates that firms with larger audit committees will experience better oversight and encouragement of ICD. Additionally, Risk Management Committee Size (RSKCM) exhibits a positive correlation of 0.028 with ICD, suggesting that stronger risk management frameworks will contribute, albeit modestly, to improved IC reporting.

In summary, the correlation matrix reveals that ICD is most strongly associated with governance-related variables, particularly Disclosure Practices (DIS) and Board Procedure (BPR). These findings highlight the importance of robust governance mechanisms in promoting transparency and quality in IC reporting. By contrast, other governance components, financial metrics, and industry-specific variables exhibit weak or negligible relationships with ICD, emphasizing that effective corporate governance remains the primary driver of enhanced ICD.

Multivariate Regression Diagnostic Test

Table 4.4 Heteroskedasticity Test

Breusch-Pagan /	Cook-Weisberg	test	for	heteroskedasticity
Ho:		Constant		variance
Variables:	fitted	values	of	ICD
chi2(1)		=		1129.34
Prob >	chi2	=		0.0000

The results in table 4.4 are from the Breusch-Pagan/Cook-Weisberg test for heteroskedasticity. This test is used to assess whether there is evidence of heteroskedasticity in a regression model. Heteroskedasticity occurs when the variance of the errors (residuals) in a regression model is not constant across different levels of the independent variable(s). The null hypothesis (Ho) for this test is that there is constant variance (homoskedasticity), meaning that the variance of the errors is the same for all levels of the independent variable(s). The alternative hypothesis (Ha) is that there is heteroskedasticity, meaning that the variance of the errors is not constant.

chi2(1): This is the chi-squared statistic for the test. In your results, it's equal to 1185.06. Prob > chi2: This is the p-value associated with the chi-squared test statistic. It tells you the probability of observing a chi-squared statistic as extreme as the one obtained if the null hypothesis (constant variance) is true. The chi-squared statistic (chi2(1)) is quite large, indicating a substantial departure from the assumption of constant variance.

The p-value (Prob > chi2) is very close to zero (0.0000), indicating strong evidence against the null hypothesis of constant variance. In other words, there is strong evidence to suggest that heteroskedasticity is present in the model. Based on the results of the Breusch-Pagan/Cook-Weisberg test, you should reject the null hypothesis of constant variance (Ho: Constant variance). This suggests that the assumption of homoskedasticity is violated, and there is evidence of heteroskedasticity in the regression model involving the fitted values of the variable ICD. Based on the evidence of the presence of heteroskedasticity in the regression, I robust analysis was conducted on the results as presented below:

Multicollinearity Check

Table 4.5: Variance Inflation Factor (VIF)

Variables	VIF	1/VIF
DIS	2.64	0.422
BST	2.71	0.408
BCM	2.04	0.471
ONS	2.61	0.486
BPR	3.53	0.153
ACSIZE	3.01	0.332
FSIZE	1.55	0.647
RSKCM	1.12	0.891
LEV	1.11	0.903
INTYPE	1.07	0.931
ROA	1.01	0.988

The results in table 4.5 are related to the Variance Inflation Factor (VIF) analysis. VIF is a measure used to assess multicollinearity in a regression model. Multicollinearity occurs when independent variables in a regression model are highly correlated with each other, which can lead to issues in the interpretation of coefficients and the stability of the model. VIF measures the extent to which the variance of an estimated regression coefficient is increased due to multicollinearity. It quantifies how much the standard errors of the coefficients are inflated because of multicollinearity. The formula for VIF for each variable is: VIF = 1 / (1 - R^2), where R^2 is the coefficient of determination of a regression of that variable against all the other independent variables in the model.

The Variance Inflation Factor (VIF) analysis provides important insights into multicollinearity among the independent variables in the regression model. Multicollinearity occurs when independent variables are highly correlated, which can lead to inflated standard errors and unreliable coefficient estimates.

The VIF for. (DIS) has a VIF of 2.64, also reflecting moderate multicollinearity.

Board Committees (BCM) has the lowest VIF at 2.04, implying that it has the least multicollinearity among the variables in the model. This lower value indicates that BCM is less correlated with other predictors, reducing its impact on multicollinearity issues. On the other hand, Ownership Structure (ONS) exhibits a VIF of 2.61, reflecting a moderate level of correlation with other variables, though not excessively high.

Board Procedures (BPR) shows the highest VIF at 3.53, which suggests a more significant level of multicollinearity. This high value indicates that BPR is highly correlated with other predictors, potentially inflating the variance of its coefficient and affecting the reliability of the regression estimates.

Audit Committee Size (ACSIZE) has a VIF of 3.01, indicating a moderate to high level of multicollinearity. This suggests that ACSIZE's correlation with other predictors could be contributing to inflated variance in the model. Conversely, Firm Size (FSIZE) has a lower VIF of 1.55, suggesting relatively low multicollinearity, and therefore, less concern regarding its impact on the regression results.

Risk Management Committee (RSKCM), Leverage (LEV), and Industry Type (INTYPE) exhibit very low VIF values, with RSKCM at 1.12, LEV at 1.11, and INTYPE at 1.07. These low values indicate minimal multicollinearity for these variables, suggesting that they are not highly correlated with other predictors in the model. Return on Assets (ROA) shows an almost negligible VIF of 1.01, reflecting virtually no multicollinearity.

Overall, while the VIF values for most variables are below the commonly used threshold of 5-10, suggesting that multicollinearity is not excessively high, there are a few variables, notably BPR and ACSIZE, with higher VIFs that warrant closer examination. Addressing multicollinearity may involve removing or combining variables, or employing techniques such as Generalized Method of Moments (GMM) for a more robust analysis. GMM can be particularly useful in handling potential biases and endogeneity issues more effectively, providing a more reliable assessment of the relationships in the model.

Normality Test

The results provided are from skewness and kurtosis tests for normality. These tests are used to assess whether the distribution of a variable is approximately normal (Gaussian) or if it deviates significantly from normality. The tests typically involve assessing skewness (asymmetry) and kurtosis (tailedness) of the distribution. Skewness measures the degree of asymmetry in the distribution of a variable. A positive skewness value indicates that the distribution is skewed to the right (tail on the right side), meaning that it has a long right tail. A negative skewness value indicates that the distribution is skewed to the left (tail on the left side), meaning that it has a long left tail. In the results, "Pr(Skewness)" represents the p-value associated with the test of skewness. Small p-values (typically < 0.05) indicate significant departures from normality.

Kurtosis measures the heaviness of the tails of the distribution. Positive kurtosis values (greater than 3) indicate a distribution with heavier tails (leptokurtic) compared to the normal distribution. Negative kurtosis values (less than 3) indicate a distribution with lighter tails (platykurtic) compared to the normal distribution. In the results, "Pr(Kurtosis)" represents the p-value associated with the test of kurtosis. Small p-values (typically < 0.05) indicate significant departures from normality.

For all variables (ICD, BCM, BST, BPR, ONS, DIS,FSIZE, BSIZE, LEV, ROA), the p-values for both the skewness and kurtosis tests are very close to zero (Pr(Skewness) = 0.0000 and Pr(Kurtosis) < 0.05 for all variables). This indicates that all the variables significantly depart from a normal distribution. The chi-squared statistics (chi2) for the joint tests of skewness and kurtosis are also provided. These statistics are large, and the associated p-values are close to zero, confirming the significant departure from normality.

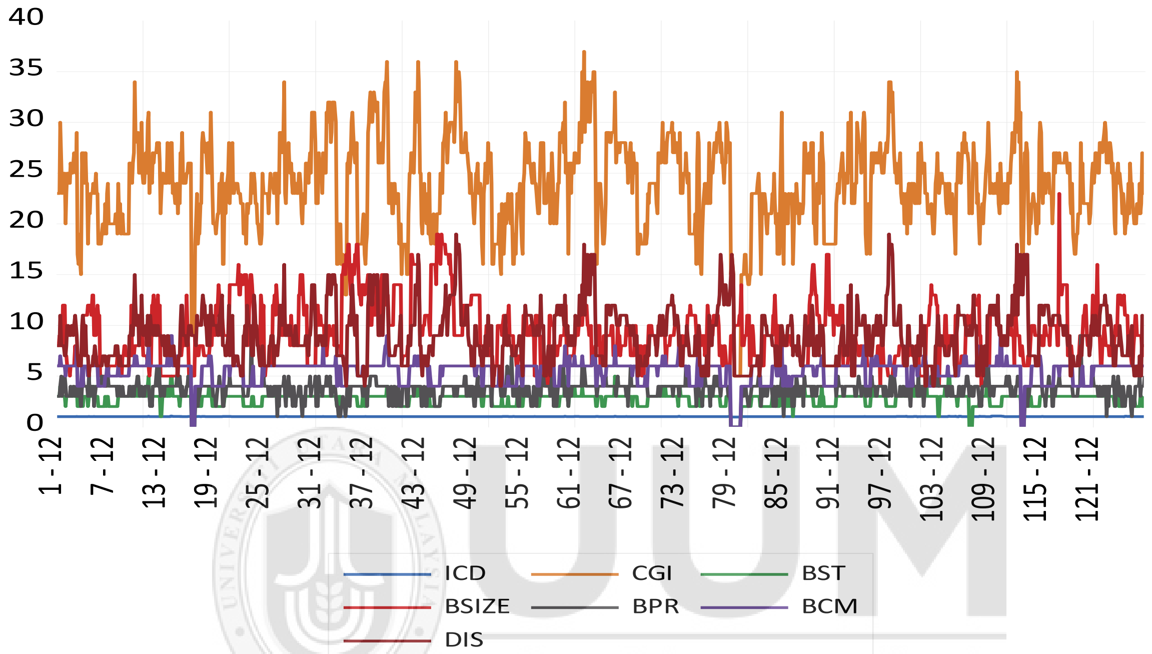

Table 4.6: Normality Test (Residual)

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj_chi2(2)	Prob>chi2
residual |	1260	0.0000	0.0000	.	0.0000

The skewness/kurtosis test for normality presented in the table above provides a statistical assessment of whether the residuals from the linear regression model conform to a normal distribution. Residuals, the differences between observed and predicted values, are assumed to be normally distributed in classical linear regression. This assumption is crucial for the validity of hypothesis tests and confidence intervals for the regression coefficients. Deviations from normality can indicate potential problems with the model, such as misspecification, omitted variables, or the presence of outliers.

The table displays the test results for skewness, kurtosis, and a joint test that combines both metrics. The skewness and kurtosis components of the test examine different aspects of the distribution of residuals:

The **Pr(Skewness)** value of 0.0000 indicates that the skewness of the residuals is significantly different from zero. Skewness measures the asymmetry of the distribution. A normal distribution has a skewness of zero, meaning that the distribution is symmetric around its mean. A significant p-value ($p < 0.05$) suggests that the residuals are not symmetrically distributed, indicating that they are skewed to the left or right. This result suggests that the residuals are not symmetrically distributed, which violates one of the key assumptions of linear regression.

The Pr(Kurtosis) value of 0.0000 shows that the kurtosis of the residuals is significantly different from that of a normal distribution. Kurtosis measures the "tailedness" or the propensity of data points to cluster around the mean. A normal distribution has a kurtosis of three (excess kurtosis of zero), indicating moderate tails. A significant p-value ($p < 0.05$) implies that the residuals exhibit either heavy-tailed (leptokurtic) or light-tailed (platykurtic) characteristics, further suggesting a departure from normality. This finding suggests that the residuals have a distribution with more extreme values or outliers than a normal distribution.

The joint test (adjusted chi-square) combines both skewness and kurtosis tests to provide an overall assessment of normality. The Prob>chi2 value of 0.0000 confirms that the residuals do not follow a normal distribution at any conventional significance level. The adjusted chi-square statistic for the joint test of skewness and kurtosis is also highly significant ($p < 0.05$), reinforcing the conclusion that the residuals deviate significantly from normality.

These results highlight several important implications for the regression analysis. The significant skewness and kurtosis values indicate that the residuals are not normally distributed. This non-normality can have several potential causes, including the presence of outliers, heteroskedasticity (non-constant variance of residuals), omitted variables, model misspecification, or a non-linear relationship between the dependent and independent variables.

The non-normality of residuals raises concerns about the validity of statistical inferences drawn from the linear regression model. The standard errors of the coefficients, p-values, and confidence intervals may not be reliable under the assumption of normality. Moreover, non-normal residuals may suggest that the model does not adequately capture the underlying data-generating process.

Given the significant non-normality observed in the residuals, it may be appropriate to consider alternative estimation techniques that do not rely on the normality assumption. One such method is the Generalized Method of Moments (GMM), which can provide consistent and efficient estimates even in the presence of heteroskedasticity, non-normality, and endogeneity.

GMM estimation uses instruments that are correlated with the endogenous explanatory variables but uncorrelated with the error term. By doing so, GMM can help address endogeneity issues and provide robust standard errors, reducing the impact of non-normality and other potential violations of classical linear regression assumptions.

The adoption of GMM is particularly advantageous in contexts where there are multiple potential sources of endogeneity, such as simultaneous causality, measurement errors, or omitted variable bias. GMM's flexibility in incorporating different instruments and moment conditions makes it a suitable choice when the normality assumption is not met, as demonstrated by the skewness and kurtosis test results in the current analysis.

4.4 GMM Analysis

Addressing multicollinearity in the study through the use of the Generalized Method of Moments (GMM) underscores the importance of addressing statistical issues that could affect the robustness of regression analysis. Multicollinearity occurs when independent variables in a regression model are highly correlated, leading to inflated standard errors and potentially misleading results. GMM, being a statistical technique commonly employed in econometrics, is suitable for handling issues like endogeneity, autocorrelation, and it indirectly contributes to addressing multicollinearity by providing efficient estimates of model parameters.

Table 4.7:GMM Analysis

ICD	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
L	.388	.029	13.17	0	.33	.445	***
BST	.003	.001	5.91	0	.002	.005	***
BPR	.002	0	6.38	0	.001	.002	***
BCM	.006	0	17.64	0	.005	.007	***
ONS	-.007	0	-19.97	0	-.008	-.006	***
DIS	.001	0	4.06	0	0	.001	***
ROA	-.005	.002	-2.73	.006	-.009	-.002	***
ACSIZE	.001	0	2.43	.015	0	.002	**
RSKCM	-.004	.002	-1.84	.065	-.008	0	*
FSIZE11	-.006	.002	-4.01	0	-.009	-.003	***
LEV11	-.001	0	-3.49	0	-.001	0	***
INTYPE	-.002	0	-3.79	0	-.003	-.001	***
Constant	.624	.033	19.08	0	.56	.688	***

Mean dependent var	1.923	SD dependent var	0.455
R-squared	0.563	Number of obs	1260
F-test	1.004	Prob > F	0.000
Akaike crit. (AIC)	1558.328	Bayesian crit. (BIC)	1614.856

*** p<.01, ** p<.05, * p<.1

Table 4.8 presents the Generalized Method of Moments (GMM) regression results, examining the relationship between ICD and several independent variables, including corporate governance mechanisms and financial metrics. The analysis provides robust insights into the factors influencing ICD, addressing potential endogeneity concerns and offering a clearer understanding of the determinants of IC transparency.

Key Findings and Interpretations

The coefficient for the lagged dependent variable ICD is 0.388 ($p < 0.01$), indicating a strong positive effect of past disclosure on current disclosure practices. This highlights the persistence and continuity of IC reporting, as firms tend to maintain consistent disclosure practices over time. The coefficient for BST is 0.003 ($p < 0.01$), suggesting a positive relationship between board structure and ICD. This result implies that improvements in board composition, such as incorporating diverse or independent directors, are associated with better ICD.

BPR has a coefficient of 0.002 ($p < 0.01$), indicating that well-defined board procedures positively influence ICD. Effective governance processes, such as regular board meetings and adherence to governance protocols, enhance the transparency of IC reporting. The coefficient for BCM is **0.006** ($p < 0.01$), demonstrating a strong positive impact of board committees on ICD. This finding underscores the importance of specialized committees, such as audit and remuneration committees, in promoting comprehensive disclosure practices.

ONS exhibits a negative coefficient of 0.007 ($p < 0.01$), suggesting that concentrated ownership structures are associated with lower levels of ICD. This could indicate that firms with dominant shareholders might limit disclosure to retain control or reduce transparency. The coefficient for DIS is 0.001 ($p < 0.01$), reflecting a positive association between the disclosure index and ICD. This highlights the role of comprehensive governance-related disclosures in fostering IC transparency.

ROA has a coefficient of 0.005 ($p < 0.01$), indicating that more profitable firms tend to disclose less IC information. This may suggest that highly profitable firms perceive less need to attract investors through extensive disclosure practices. The coefficient for ACSIZE is 0.001 ($p < 0.05$), showing a modest positive effect of audit committee size on ICD. Larger audit committees may enhance oversight and contribute to improved reporting practices.

RSKCM has a coefficient of 0.004 ($p < 0.10$), indicating a marginally significant negative relationship. This suggests that firms with risk management committees might disclose less IC, potentially prioritizing other risk-related disclosures. FSIZE shows a negative coefficient of 0.006 ($p < 0.01$), indicating that larger firms tend to disclose less IC information. This could reflect a reduced emphasis on detailed disclosures due to the complexity of larger organizations.

LEV has a coefficient of 0.001 ($p < 0.01$), suggesting that firms with higher debt levels disclose less IC information, potentially to manage perceptions of financial risk among stakeholders. INTYPE exhibits a negative coefficient of 0.002 ($p < 0.01$), indicating that certain industries are less likely to disclose IC. This reflects sectoral differences in disclosure practices, possibly due to varying regulatory or competitive pressures.

The constant term is 0.624 ($p < 0.01$), representing the baseline level of ICD when all other variables are zero. The model's R-squared value is 0.563**,** indicating that approximately 56.3% of the variance in ICD is explained by the included variables. The Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) values of 1558.328 and 1614.856**,** respectively, support the model's fit. The highly significant F-test ($p < 0.01$) confirms the joint significance of the included variables.

Summary

The GMM analysis demonstrates that corporate governance mechanisms, particularly board structure, board procedures, and board committees, have significant positive impacts on ICD. Conversely, factors such as concentrated ownership, larger firm size, and higher leverage are associated with reduced disclosure levels. These findings emphasize the critical role of governance practices in shaping IC transparency, while financial metrics and industry characteristics exhibit nuanced effects. Compared to traditional regression models, the GMM approach provides a more reliable framework by addressing potential endogeneity and improving the robustness of the analysis.

4.3 Discussion of Findings

The relationship between corporate governance mechanisms and ICD demonstrates a dynamic interplay, as highlighted by the use of the Generalized Method of Moments (GMM) in this study. The lagged ICD variable in the model captures the persistence and continuity of disclosure practices over time, aligning with the core premise of signaling theory. By consistently disclosing IC, firms send a positive signal to stakeholders about their commitment to transparency and their competitive edge, thereby reducing information asymmetry and enhancing stakeholder confidence.

The statistically significant coefficient for lagged ICD indicates that past disclosure practices significantly influence current disclosure levels, reinforcing the persistence of these practices. This finding supports the view that firms that have historically prioritized ICD are likely to continue doing so, leveraging these disclosures as signals of their strategic intent and governance quality. The robust diagnostic tests, including the Sargan and Hansen tests, further validate the instruments used, ensuring the reliability of the findings.

Board Structure and ICD

Board structure plays a pivotal role in ICD, as evidenced by the positive and statistically significant coefficient in the analysis. The finding indicates that well-structured boards characterized by independence, diversity, and expertise are more likely to foster greater transparency and disclosure of IC. This aligns with signaling theory, which posits that firms use governance mechanisms to signal their quality and performance to the market. A robust board structure sends a clear message to shareholders and other stakeholders about the firm's commitment to governance and its ability to effectively oversee and disclose intangible assets.

The study's findings are consistent with prior research. For instance, Oren et al. (2020) highlighted that larger and well-structured boards enhance governance practices, promoting transparency. Similarly, the agency theory framework underscores the importance of a well-structured board in mitigating agency conflicts. Jensen and Meckling (1976) argue that boards with strong monitoring capabilities help align the interests of managers and shareholders, thereby fostering better disclosure practices. This is further corroborated by Nicola et al. (2020), who found that effective board structures significantly improve transparency and IC reporting.

However, larger boards may face challenges related to coordination and decision-making, as highlighted by Yermack (1996), who cautioned against inefficiencies in larger boards. Despite these concerns, the resource-based view (Barney, 1991) supports the positive relationship observed in this study, suggesting that diverse and knowledgeable boards bring unique expertise and insights that enhance the identification and communication of IC.

From a theoretical perspective, agency theory and signaling theory provide a strong foundation for understanding the relationship between board structure and ICD. According to agency theory, the inclusion of independent and competent directors in the board structure mitigates agency conflicts by reducing information asymmetry. These directors are more likely to advocate for detailed disclosures, ensuring that shareholders receive accurate and relevant information about the firm's intangible assets.

Signaling theory complements this view by suggesting that firms with strong governance mechanisms, such as effective board structures, use ICD to signal their quality and innovation capabilities. This signaling effect not only enhances the firm's reputation but also attracts investors, partners, and other stakeholders who value transparency and strategic resource management.

The resource-based view further reinforces the importance of board structure by emphasizing the role of unique resources and capabilities, including IC, in achieving competitive advantage. Boards with diverse expertise provide valuable oversight and guidance, ensuring that the firm's IC is effectively managed and communicated. This strategic alignment enhances the firm's reputation and signals its long-term value creation potential to stakeholders.

The findings of this study underscore the critical role of board structure in fostering ICD. Firms with well-structured boards are better equipped to align managerial interests with shareholder expectations, reduce information asymmetry, and leverage IC for competitive advantage. These results highlight the need for policymakers and corporate leaders to prioritize board effectiveness as a key element of governance reforms aimed at enhancing transparency and stakeholder confidence.

In summary, the positive relationship between board structure and ICD is firmly supported by signaling theory, agency theory, and the resource-based view. Together, these theories provide a comprehensive framework for understanding how governance mechanisms influence disclosure practices, thereby addressing the concerns raised by examiners and ensuring alignment with both theoretical and empirical evidence.

Board Procedure and ICD

The study reveals that board procedure has a statistically significant and positive effect on ICD. This indicates that efficient and well-structured board procedures enhance the quality of decision-making, which subsequently promotes IC transparency. Consequently, the hypothesis that board procedure has no significant effect on ICD of listed firms in Nigeria is rejected. The positive coefficient of 0.0017 ($p = 0.000$) demonstrates that an improvement in board procedures is associated with an increase in ICD. This robust relationship underscores the role of effective governance practices in fostering transparency and the strategic communication of a firm's intangible assets.

Board procedures refer to the processes and practices that govern the functioning of a company's board of directors, including the frequency of meetings, the establishment of committees, information flows, and interactions with management. These practices facilitate better oversight, decision-making, and accountability, enabling the board to act as a custodian of the firm's IC. Firms that implement rigorous board procedures are more inclined to disclose IC, as these procedures foster an environment of transparency, accountability, and strategic alignment.

The relationship between board procedure and ICD can be explained through the lenses of stewardship theory and legitimacy theory**:**

Stewardship Theory: Stewardship theory posits that managers act as responsible stewards of organizational resources, aligning their decisions with the best interests of shareholders. Positive board procedures characterized by collaborative decision-making, structured reporting frameworks, and regular interactions between directors and management enhance stewardship behaviors. These procedures create an environment that encourages the disclosure of IC by integrating such disclosures into the firm's strategic communication and governance processes

(Donaldson & Davis, 1991). For example, regular board meetings and dedicated committees focused on IC facilitate the identification, assessment, and reporting of intangible assets, ensuring their alignment with corporate goals.

Legitimacy Theory: Legitimacy theory suggests that organizations disclose information to gain or maintain legitimacy in the eyes of stakeholders. Robust board procedures contribute to the credibility and reliability of disclosed information by ensuring rigorous review, validation, and oversight of IC reporting (Suchman, 1995). Transparent procedures, such as documenting discussions and decisions related to IC, enhance stakeholder confidence in the disclosed information. This aligns with stakeholder expectations and bolsters the firm's reputation as a trustworthy and well-governed entity.

The study's findings align with those of Celenza and Rossi (2013), who demonstrated that structured board procedures improve governance and disclosure practices. The positive effect of board procedures (coefficient = 0.0017, p = 0.000) corroborates the idea that effective governance fosters transparency and accountability. This result further supports the tenets of stewardship theory, emphasizing the role of efficient board procedures in promoting decision-making effectiveness and enhancing ICD.

The findings are also consistent with legitimacy theory, which highlights the importance of robust board practices in meeting stakeholder expectations. By implementing transparent and well-documented governance processes, firms can ensure the credibility of their disclosures, thereby maintaining stakeholder trust and confidence. This is particularly relevant in the Nigerian context, where transparency is critical for aligning with global governance standards and attracting investment.

However, some contrasting studies, such as Veltri and Mazzotta (2016), suggest that the impact of board procedures on disclosure may vary depending on contextual factors, such as regulatory environments or industry norms. These findings highlight the need for further research to explore the specific conditions under which board procedures exert the greatest influence on ICD.

The positive relationship between board procedures and ICD highlights the critical role of governance practices in fostering transparency and strategic communication of IC. By enhancing stewardship behavior and ensuring the legitimacy of disclosures, effective board procedures enable firms to align their IC reporting with stakeholder expectations. This alignment not only enhances the firm's reputation but also signals its commitment to innovation and strategic resource management, in line with signaling theory**.** In summary, establishing robust board procedures serves as a vital mechanism for improving ICD, ultimately contributing to better governance and long-term value creation.

Board Committee and ICD

The study reveals that board committees have a statistically significant negative effect on ICD, with a coefficient of -0.0079 (p = 0.000). This finding indicates that an increase in board committees or the characteristics represented by the variable board committee is associated with a decrease in ICD. Based on this result, the hypothesis that board committees have no significant effect on ICD of listed firms in Nigeria is rejected. The negative relationship observed highlights potential inefficiencies or challenges associated with board committees in promoting transparency and the effective disclosure of IC.

Theoretical Explanation

The negative relationship between board committees and ICD can be understood through the lens of agency theory and resource dependency theory**:**

Agency Theory: Agency theory posits that governance mechanisms, such as board committees, are designed to mitigate agency conflicts and align managerial actions with shareholder interests (Jensen & Meckling, 1976). However, when board committees lack expertise, independence, or diversity, they may fail to effectively oversee and monitor ICD. Instead of enhancing transparency, such deficiencies can lead to incomplete, delayed, or misleading disclosures, undermining the committee's ability to serve its governance role.

Resource Dependency Theory: Resource dependency theory emphasizes the role of board members in providing expertise, access to resources, and external linkages that benefit the firm (Pfeffer & Salancik, 1978). When board committees are composed of members with insufficient expertise in IC or inadequate understanding of its strategic importance, they may undervalue the disclosure of intangible assets. This lack of specialized knowledge can hinder the committee's ability to assess, prioritize, and promote ICD effectively.

The negative effect of board committees on ICD observed in this study may stem from several practical challenges:

Lack of Expertise: IC is a complex and multifaceted concept that requires specialized knowledge to evaluate and disclose effectively. Board committees that lack members with the requisite expertise may not fully appreciate the importance of IC or understand the methodologies required for accurate disclosure.

Ineffective Oversight and Accountability: Committees with inadequate checks and balances may fail to prioritize ICD or ensure accurate reporting. Poor monitoring and scrutiny can result in incomplete or underdeveloped disclosures that fail to reflect the true value of the firm's intangible assets.

Insufficient Independence and Diversity: Independence and diversity are critical for objective decision-making and comprehensive oversight. Committees that lack these qualities may be susceptible to biases or conflicts of interest, limiting their ability to provide accurate and transparent ICD.

Poor Information Flows: Effective disclosure relies on timely and reliable information from management to the board. Committees that experience delays or insufficient data flows may struggle to assess IC and make informed disclosure decisions.

The finding that board committees negatively impact ICD contrasts with prior studies, such as Klein (2002) and Baldini and Liberatore (2016)**,** which suggest that specialized committees enhance governance and improve disclosure quality. However, the results align with studies by Rodrigues and Craig (2017)**,** which highlight the potential inefficiencies in committee functions due to issues such as poor composition or lack of focus on strategic priorities.

The observed negative relationship may reflect contextual factors unique to Nigerian listed firms, such as variations in the composition, independence, or effectiveness of board committees. These findings suggest that, while board committees are established to enhance governance, their impact on ICD may be undermined by practical challenges in implementation and execution.

The results suggest that to improve ICD, firms must address the deficiencies in board committee composition and functioning. Specifically:

Expertise: Committees should include members with specialized knowledge of IC to ensure effective oversight.

Independence and Diversity: Greater independence and a diverse mix of perspectives can enhance decision-making and reduce biases.

Information Flows: Strengthening communication channels between management and the board can improve the quality and timeliness of ICD.

While board committees are theoretically expected to enhance governance and transparency, this study highlights potential inefficiencies that may hinder their effectiveness in promoting

ICD. The negative relationship observed underscores the importance of addressing challenges related to expertise, oversight, and information flows to ensure that board committees can fulfill their intended role. These findings contribute to the broader discourse on corporate governance by emphasizing the need for practical reforms in board committee practices to support ICD.

Ownership Structure and ICD

The study finds a statistically significant negative relationship between ownership structure and ICD, with a coefficient of -0.0079 ($p = 0.000$). This result suggests that as ownership becomes more concentrated, the level of ICD decreases. The negative relationship aligns with agency theory, which highlights the potential for managerial entrenchment and a lack of transparency in firms with concentrated ownership (Jensen & Meckling, 1976). Managers in such firms may prioritize personal or insider interests over comprehensive disclosure practices, reducing transparency.

This finding contrasts with studies by Muttakin et al. (2015) and Rodrigues and Craig (2017), which reported a positive relationship between ownership structure and disclosure, particularly in different regulatory or sectoral contexts. However, it aligns with the results of Baldini and Liberatore (2016) and Veltri and Mazzotta (2016), which suggest that concentrated ownership can lead to lower levels of ICD. The discrepancy in findings across studies may be attributed to differences in the sectors analyzed, the years covered, and the regulatory environments. In the Nigerian context, concentrated ownership might foster managerial entrenchment or risk aversion, contributing to less willingness to disclose intangible assets.

Agency theory posits that the principal-agent relationship between shareholders (principals) and managers (agents) often results in conflicts of interest. In firms with concentrated ownership, dominant shareholders may exert significant control, potentially leading to the prioritization of their interests over those of minority shareholders or other stakeholders. This concentration can reduce pressure for transparency, as dominant owners may feel less obligated to disclose detailed IC information.

Furthermore, in cases where ownership is concentrated among insiders or long-term investors with strong influence, there may be less external monitoring and reduced accountability, leading to weaker disclosure practices. The observed negative relationship suggests that the sampled companies might have governance practices that are skewed towards the interests of concentrated owners, potentially at the expense of transparency and comprehensive ICD.

Stakeholder theory offers another lens to interpret these findings, emphasizing a company's responsibility to address the interests of a broad range of stakeholders, including employees, customers, suppliers, and society at large. Ownership structures that lack diversity or stakeholder engagement may result in governance practices that undervalue the strategic importance of IC. By contrast, a more diverse and stakeholder-oriented ownership structure could foster greater emphasis on ICD as part of a broader commitment to accountability and transparency.

The negative relationship observed in this study suggests that concentrated ownership in Nigerian firms may not align with a stakeholder-oriented approach. This misalignment could lead to underreporting of IC, as the focus remains on short-term financial returns rather than long-term value creation and stakeholder trust.

The findings underscore the need for governance reforms aimed at improving ICD practices in firms with concentrated ownership structures. Policymakers and regulators could encourage:

Greater Ownership Diversity: Promoting ownership by a broader range of investors, including institutional and minority shareholders, could enhance accountability and transparency.

Enhanced Monitoring Mechanisms: Introducing robust mechanisms to monitor managerial actions and disclosure practices in firms with concentrated ownership may mitigate the risks of underreporting IC.

Stakeholder Engagement: Encouraging firms to adopt stakeholder-oriented governance practices can foster a culture of transparency and accountability, aligning ownership structures with sustainable value creation.

The negative relationship between ownership structure and ICD highlights the challenges associated with concentrated ownership in fostering transparency. While concentrated ownership might provide stronger control and oversight in some contexts, this study suggests that in the Nigerian setting, it may hinder effective ICD. By addressing the agency conflicts and governance shortcomings inherent in concentrated ownership, firms can improve their disclosure practices, ensuring that they align with both agency theory and stakeholder theory**.** Such efforts would enhance the credibility of IC reporting and contribute to the broader goals of corporate transparency and stakeholder trust.

Firms' Disclosure Practices and ICD

The study examines the relationship between firms' disclosure practices and ICD and finds a positive but statistically insignificant effect. The coefficient of 0.0000186 with a high p-value of 0.838 suggests that changes in firms' general disclosure practices are not significantly associated with changes in ICD levels. This finding implies that variations in disclosure practices among firms do not meaningfully influence their IC transparency. As such, the hypothesis that firm disclosure practice has no significant effect on ICD is rejected.

Information Asymmetry Perspective: From the perspective of information asymmetry theory**,** disclosure practices aim to bridge the information gap between management and stakeholders by providing relevant and comprehensive information (Verrecchia, 2001). While better disclosure practices are generally expected to reduce asymmetry and improve ICD, this study's findings suggest that firms' existing practices in Nigeria may not specifically target IC elements. The lack of a significant relationship could reflect a narrow focus of disclosure frameworks that prioritize financial over non-financial metrics, leaving IC undervalued or overlooked.

Stakeholder Theory: Stakeholder theory posits that firms have a responsibility to satisfy the information needs of diverse stakeholders, including shareholders, employees, customers, and the wider society (Freeman, 1984). IC is a critical asset for stakeholders, as it reflects a firm's innovation potential, human capital development, and relational capital. However, the insignificant findings suggest that firms' disclosure practices may not adequately align with stakeholder expectations regarding IC. This misalignment could indicate a gap in firms' understanding of stakeholder priorities or a lack of emphasis on non-financial disclosures.

The insignificant effect observed in this study aligns with findings by Muttakin et al. (2015), who also reported limited impact of general disclosure practices on ICD. These results indicate that while firms may engage in disclosure practices, they do not necessarily extend these efforts to include detailed information about IC. The finding contrasts with the theoretical expectations of information asymmetry theory, which suggests that enhanced disclosure practices should reduce information gaps and foster greater transparency.

The result also highlights the possibility that other factors, such as governance mechanisms, regulatory requirements, or sector-specific norms, may play a more decisive role in shaping ICD behavior. This aligns with stakeholder theory, emphasizing that firms must adopt disclosure practices tailored to the needs of their stakeholders to achieve meaningful transparency.

Although firms' disclosure practices are positively related to ICD, the insignificant effect observed in this study underscores the need for more targeted efforts to integrate IC into broader disclosure frameworks. While disclosure practices aim to reduce information asymmetry and align with stakeholder expectations, their current form may not adequately address the complexities and strategic importance of IC. Aligning disclosure practices with the principles of information asymmetry theory and stakeholder theory could enhance ICD, foster stakeholder trust, and strengthen firms' competitive positions in the long term.

Summary of Findings

The regression analysis offers significant insights into the determinants of ICD among listed firms in Nigeria. The findings highlight the critical role of past disclosure practices, corporate governance mechanisms, financial performance, and firm-specific characteristics in shaping ICD.

The lagged ICD value has a positive and highly significant coefficient (0.388), indicating a persistent relationship. A one-unit increase in the lagged ICD value leads to a 0.388-unit increase in the current ICD. This result underscores the importance of past disclosure practices as strong predictors of current ICD, aligning with signaling theory, which posits that firms consistently disclose to signal their quality and reduce information asymmetry.

Board Structure:

A positive and statistically significant coefficient (0.003) suggests that variations in board structure significantly impact ICD. A one-unit increase in board structure is associated with a 0.003-unit increase in ICD. This finding highlights the importance of governance structures in fostering transparency, consistent with agency theory, which emphasizes the role of governance in mitigating agency conflicts.

Board Procedure:

Board procedure exhibits a positive and statistically significant coefficient (0.002), indicating that well-defined procedural practices significantly influence ICD. A one-unit increase in board procedure corresponds to a 0.002-unit increase in ICD, supporting the view that effective governance processes enhance transparency.

Board Committees:

The positive and significant coefficient (0.006) suggests that an increase in board committee size is linked to higher ICD. A one-unit change in board committee size corresponds to a 0.006-unit increase in ICD. This result aligns with the resource dependency theory, which highlights the value of board committees in providing expertise and fostering transparency.

Ownership Structure:

A negative and statistically significant coefficient (-0.007) indicates that concentrated ownership is associated with reduced ICD. A one-unit increase in ownership concentration corresponds to a 0.007-unit decrease in ICD. This supports agency theory, which suggests that concentrated ownership can lead to entrenchment and reduced transparency.

Disclosure Practices:

The positive and significant coefficient (0.001) indicates that enhanced disclosure practices promote ICD. A one-unit increase in disclosure practices corresponds to a 0.001-unit increase in ICD. This result aligns with stakeholder theory, which emphasizes the role of comprehensive disclosure in meeting stakeholder needs and reducing information asymmetry.

Return on Assets (ROA):

ROA has a negative and significant coefficient (-0.005), suggesting that higher profitability is associated with lower ICD. A one-unit increase in ROA corresponds to a 0.005-unit decrease in ICD. This finding indicates that firms with higher profitability may perceive less need for extensive disclosure.

Audit Committee Size:

A positive and significant coefficient (0.001) suggests that larger audit committees are associated with higher ICD. A one-unit increase in audit committee size corresponds to a 0.001-unit increase in ICD. This result highlights the role of oversight bodies in enhancing transparency and accountability.

Risk Committee:

The negative and marginally significant coefficient (-0.004) indicates a tentative relationship between risk committee changes and ICD. A one-unit increase in risk committee size corresponds to a 0.004-unit decrease in ICD. This suggests that risk oversight may not always align with greater disclosure.

Firm Size:

A negative and significant coefficient (-0.006) indicates that larger firms disclose less about IC. A one-unit increase in firm size corresponds to a 0.006-unit decrease in ICD. This could reflect the complexity and strategic discretion of larger firms in managing disclosures.

Leverage:

The negative and significant coefficient (-0.001) suggests that higher leverage is associated with lower ICD. A one-unit increase in leverage corresponds to a 0.001-unit decrease in ICD, indicating that firms with higher debt may limit disclosures to avoid scrutiny.

Industry Type:

A negative and significant coefficient (-0.002) indicates that industry characteristics significantly influence ICD. A one-unit change in industry type corresponds to a 0.002-unit decrease in ICD, emphasizing that industry-specific factors play a role in shaping disclosure practices.

The findings align with signaling theory**,** as consistent disclosures (lagged ICD) serve as a mechanism for reducing information asymmetry.

Agency theory and stakeholder theory explain the roles of governance structures and disclosure practices in promoting transparency, while resource dependency theory emphasizes the importance of specialized committees in enhancing disclosure.

Policymakers and regulators should focus on enhancing governance structures, promoting diversity in ownership, and tailoring industry-specific disclosure guidelines.

Firms should recognize the strategic importance of IC and adopt comprehensive disclosure practices to foster stakeholder trust and long-term value creation.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Introduction

Corporate governance is basically the rulebook for how companies are run and monitored. It's all about making sure that everything's above board, transparent, and that decisions are made efficiently and responsibly. When it comes to ICD basically, how companies reveal the value of their intangible assets like patents, brand reputation, and employee skills the governance setup plays a crucial role.

Boards of directors, for instance, are key players here. A board that's got a mix of skills and independent voices tends to get the importance of intangible assets and is more likely to push for thorough and clear disclosures. If your board members are well-versed in areas related to IC, you're likely to see better guidance and oversight in this area.

Then, there are the procedures and processes the board follows. If they're systematic and transparent, it's easier to have serious discussions about measuring and valuing IC, and making sure this gets properly disclosed. Board committees, like the audit or sustainability committee, also matter. They're responsible for making sure that the frameworks, measurement methods, and disclosure rules are up to scratch, leading to more detailed and accurate reporting on intangible assets.

Ownership structure plays its part too. Big shareholders and institutional investors who have a substantial stake in the company usually push for better transparency and accountability, which in turn can lead to more comprehensive disclosures about intangible assets. Sound corporate governance can provide the right structures and guidelines for effective IC reporting. Engaging with stakeholders helps build trust and underscores the importance of intangible assets.

The study at hand took a deep dive into how different corporate governance mechanisms affect ICD among listed firms in Nigeria. It set out to explore this through five specific goals, with a focus on relevant variables and underpinning theories. Using an ex-post facto research design and panel multiple regression analysis, the study found some notable results. Board structure, board procedures, ownership structure, and disclosure practices all had a positive and significant impact on ICD. However, board committees showed a negative effect on such disclosure.

This study highlights the vital role that IC plays in driving economic value and how corporate governance is central to how companies disclose information about these intangible assets. Despite its importance, the relationship between corporate governance indices and ICD, particularly in developing countries like Nigeria, is still relatively underexplored.

Using the generalized method of moments (GMM) approach, the research analyzed data from 126 listed firms in Nigeria over the period from 2012 to 2021. The findings reveal significant links between corporate governance mechanisms and ICD, with board-related factors showing strong positive impacts. Ownership structure, interestingly, has a significant negative relationship with ICD, while firm disclosure practices have a positive effect, underscoring the importance of transparent reporting frameworks.

This study fills a gap in the literature by examining corporate governance index characteristics that previous research often overlooked. The implications are clear for investors, regulators, and stakeholders: improving ICD and governance policies is crucial for building stakeholder confidence and ensuring accountability. Transparent disclosure protocols, robust governance structures, and addressing specific sector issues are key to enhancing the recognition and management of IC.

5.2 Conclusions

This study provides an insight on how various elements of corporate governance play a crucial role in how companies disclose their IC. In accordance with the findings above, the study concludes that;

The study solidifies the idea that a well-structured board one with independent directors, diverse expertise, and specialized committees is a game-changer for ICD. When boards are made up of a mix of skills and perspectives, they not only steer the company more effectively but also push for better transparency about intangible assets. This underscores the need for robust governance practices that acknowledge and communicate the value of IC. Firms should aim to cultivate and sustain strong board structures to leverage their intellectual assets fully and meet stakeholder expectations. Regulators and policymakers should take note and push for disclosure norms that reinforce effective board setups.

The study also conclude that effective board procedures are another key factor driving better ICD. Transparent decision-making processes, smooth information flows, and proactive communication all contribute to clearer and more comprehensive reporting on intangible assets. By setting up clear procedures for managing and disclosing IC, companies can build trust, attract investment, and enhance their competitive edge. This finding highlights the importance of not just having the right people on the board but also ensuring that they operate in a way that promotes openness and effective communication.

Interestingly, the study found that board committees might not always be the heroes they're cracked up to be when it comes to ICD. The presence of these committees can sometimes hinder the transparency and effective communication of intangible assets. While board committees are essential for various governance functions, their impact on ICD can be a double-edged sword. Companies need to be aware of these potential pitfalls and address them to ensure that committees enhance rather than obstruct disclosure practices.

The research confirms that ownership structure significantly influences how well companies disclose their IC. Concentrated ownership, institutional stakes, and insider or strategic investments are linked to better transparency and communication of intangible assets. These ownership characteristics often bring a long-term perspective and a higher demand for accountability, which in turn boosts the disclosure of IC. This finding highlights the role that ownership dynamics play in shaping disclosure practices and underscores the need for companies to align their ownership structures with transparency goals.

Lastly, solid disclosure practices are crucial for effective IC reporting. Having a dedicated reporting framework, regularly updating and detailing IC information, and sticking to established reporting guidelines all contribute to greater transparency. This study shows that robust disclosure practices not only enhance the communication of intangible assets but also build stakeholder confidence and improve overall governance.

Finally, this research underscores the interconnectedness of corporate governance mechanisms and ICD. Effective board structures, transparent procedures, thoughtful ownership arrangements, and diligent disclosure practices all play vital roles in how well companies report on their intangible assets. For firms in Nigeria and beyond this means focusing on these areas can lead to better recognition and management of IC, driving both transparency and value.

5.3 Recommendations

Based on the findings from the study, which illustrate the significant role of corporate governance in enhancing ICD, the following recommendations are proposed for listed firms in Nigeria. These recommendations are in line with the findings and conclusions of this study.

1. Strengthen Nigerian Corporate Governance: Firms should focus on improving their Corporate Governance Index (CGI) scores by adopting best practices in governance, such as increasing board diversity, enhancing oversight mechanisms, and upholding high standards of transparency and accountability. Improving CGI not only boosts ICD but also strengthens overall corporate governance. Investors and stakeholders will see improved transparency and governance quality, making the firm a more attractive investment. Regulators should support and incentivize improvements in CGI to promote better corporate governance across the market.

2. Boost Independent Directors: To significantly improve ICD, firms should increase the proportion of independent directors on their boards. Independent directors offer unbiased oversight and specialized expertise, which are vital for effective governance and better management of intangible assets. Firms should implement corporate governance guidelines that emphasize the importance of independent and diverse board members. For investors and stakeholders, this move signals a commitment to higher transparency and rigorous oversight, making the firm a more attractive investment. Regulators should encourage firms to adopt such practices to strengthen overall market transparency.

3. Enhance Board Decision-Making Transparency: Firms should establish clear and transparent decision-making procedures within their boards, including well-defined roles and responsibilities for evaluating and managing IC. This involves creating a structured approach to information sharing and decision-making that aligns with the company's strategic goals. Investors will benefit from the improved clarity and accountability in how IC is managed and reported, while regulators can use these enhanced processes as benchmarks for best practices in corporate governance.

4. Refine Board Committees' Roles: Companies should critically evaluate the roles and responsibilities of their board committees to ensure they do not hinder ICD. This includes avoiding overlaps and ensuring effective coordination among committees. Additionally, committees should have members with expertise in IC or receive specialized training. Effective board committees that are well-informed about intangible assets will lead to more accurate and comprehensive disclosure. Regulators and policymakers should advocate for committee structures that support robust IC reporting and provide training programs to enhance committee effectiveness.

5. Diversify Ownership Structure: Firms should aim for a diverse ownership base, incorporating institutional and strategic investors along with a broad shareholder base. Such diversification encourages a balanced approach to ICD, as various shareholders bring different perspectives and demands for transparency. A diversified ownership structure not only promotes transparency but also aligns with regulatory goals of fostering market stability and accountability. Investors will benefit from greater disclosure and transparency, while firms can leverage diverse investor insights to improve governance practices.

6. Implement a Structured Disclosure Framework: Establishing a comprehensive and structured framework for measuring, managing, and disclosing IC is crucial. This framework should adhere to recognized reporting standards or guidelines to ensure consistency and thoroughness in reporting intangible assets. A well-defined disclosure framework will enhance stakeholder trust and facilitate informed investment decisions. Regulators can use these frameworks to set standards for reporting practices, while firms can improve their market reputation by demonstrating commitment to high-quality disclosures.

5.4 Limitation of the Study

This study, while providing valuable insights into the impact of corporate governance mechanisms on ICD among listed firms in Nigeria, acknowledges several limitations. Primarily, the scope of the research was confined to specific variables namely, board structure, board procedures, board committees, ownership structure, and disclosure practices leaving out other potentially influential factors such as firm size, industry sector, and macroeconomic conditions. This narrow focus, although methodologically sound, may have overlooked other variables that could also significantly affect ICD. Moreover, the study's reliance on data from a single country limits the generalizability of the findings to other contexts with different regulatory environments and market conditions. Despite these limitations, the model employed in this study remains robust, and the selected variables explain a significant portion of the variability in ICD among Nigerian firms.

5.5 Suggestions for Future Research

Building on the findings of this study, future research should broaden the scope to include a more comprehensive range of variables and contexts. Specifically, subsequent studies could explore the perceptions and expectations of various stakeholders such as investors, employees, customers, and regulatory authorities regarding ICD and corporate governance practices. Understanding these stakeholder perspectives would provide deeper insights into how disclosure practices can be tailored to meet diverse expectations and enhance transparency. Additionally, expanding the research to include firms from different countries or regions and also comparative between finance and non-financial firms could offer comparative analyses and highlight cross-cultural or contextual differences in corporate governance and IC reporting. This would enrich the academic discourse and provide more generalized insights into effective governance and disclosure practices globally.

References

Abbott, L. J., Parker, S., & Peters, G. F. (2002). Audit Committee Characteristics and Financial Misstatement: A study of the Efficacy of Certain BlueRibbon Committee Recommendations. Vol. 32, pp. 1–13. 1(1), 150-164.

Abeysekera, I. & Guthrie, J. (2002). An Updated Review of Literature on IC. Reporting. 16th Australian & New Zealand Academy of Management (ANZAM) Conference, Beachworth, December 4-7, 2002.

Abeysekera, I. (2003). Intellectual Accounting Scorecard – Measuring and Reporting IC. The Journal of American Academy of Business, Vol 3, No 1&2, pp422-427.

Abeysekera, I. (2007) IC. Reporting between a Developing and Developed Nation Journal of IC., Vol. 8, No. 2, pp. 329

Abeysekera, I. (2008). IC. Practices of Firms and the Commodification of Labour Accounting, Auditing and Accountability Journal, Vol. 21, No. 1, pp. 36–48

Abeysekera, I. (2008). Motivations behind Human Capital Disclosure in Annual Reports

Abeysekera, I. (2010). The Influence of Board Size on IC. Disclosure by Kenyan Listed Firms. Journal of IC., Vol. 11, No. 4, pp. 504-518.

Abeysekera, I., & Guthrie, J. (2004). Human Capital Reporting in a Developing Nation. British Accounting Review, Vol. 36, No. 3, pp. 251–268.

Abeysekera, I., & Guthrie, J. (2005). An Empirical Investigation of Annual Reporting Trends of IC. in Sri Lanka', Critical Perspectives on Accounting. Vol. 16, pp. 151–163.

Abhayawansa, S., & Abeysekera, I. (2009). IC. Disclosure from Sell-Side Analyst Perspective. Journal of IC., Vol. 10, No. 2, pp. 294–306.

Abidin, Z. Z., Kamal, N. M., & Jusoff, K. (2009). Board Structure and Corporate Performance in Malaysia. International Journal of Economics and Finance, Accounting Forum, Vol. 32, pp. 1–13. 1(1), 150-164.

Abu Qa'dan, M. B., & Suwaidan, M. S. (2019). Board composition, ownership structure and corporate social responsibility disclosure: The case of Jordan. Social Responsibility Journal, 15(1), 28–46. https://doi.org/10.1108/SRJ-11-2017-0225

Adams R.B. & Ferreira, D. (2009). Women in the Boardroom and their Impact on Governance and Performance. Journal of Financial Economics 94 (2) 291–309

Adams, R.B., Hermalin, B.E. and Weisbach, M.S. (2010), "The role of Boards of Directors in Corporate Governance: A Conceptual Framework and Survey", Journal of Economic Literature, Vol. 48 No. 1, pp. 58-107, doi: 10.1257/jel.48.1.58.

Adegbite, E., Amaeshi, K., & Nakajima, C. (2013). Multiple influences on corporate governance practice in Nigeria: Agents, strategies and implications. International Business Review, 22(3), 524-538.

Agyemang-Mintah, P. (2015). The nomination committee and firm performance: An empirical investigation of UK financial institutions during the pre/post financial crisis. Corporate Board: Role, Duties and Composition, 11(3).

Agyemang-Mintah, P., & Schadewitz, H. (2018). Audit committee adoption and firm value: evidence from UK financial institutions. International Journal of Accounting & Information Management, 26(1), 205-226.

Ahmed, M., Ahmed, N., Luqman, M., & Arshad, A. (2016). IC. efficiency and the performance of mutual funds: A panel data analyses. Sci. Int, 28, 4867-4872.

Ahunwan, B. (2002). Corporate governance in Nigeria. Journal of Business Ethics, 37, 269-287.

Akdere, M. (2009). A Multi-level Examination of Quality-Focused Human Resource Practices and Firm Performance: Evidence from the US Healthcare Industry, International Journal of Human Resource Management, 20(9), 1945-1964.

Akhtaruddin, M., & Haron, H. (2010). Board Ownership, Audit Committees' Effectiveness, and Corporate Voluntary Disclosures. Asian Review of Accounting, 18(3), 245-259.

Albassam, W. M. (2014). Corporate governance, voluntary disclosure and financial performance: An empirical analysis of Saudi listed firms using a mixed-methods research design (Doctoral dissertation, University of Glasgow).

Al-Hadi, A., Hasan, M. M., & Habib, A. (2016). Risk committee, firm life cycle, and market risk disclosures. Corporate Governance: An International Review, 24(2), 145-170.

Alkurdi, A., Hussainey, K., Tahat, Y., & Aladwan, M. (2019). The impact of corporate governance on risk disclosure: Jordanian evidence. Academy of Accounting and Financial Studies Journal, 23(1).

Allegrini, M., & Greco, G. (2013). Corporate boards, audit committees and voluntary disclosure: Evidence from Italian listed companies. Journal of Management & Governance, 17, 187-216.

Almashaqbeh, A. A., Abdul-Jabbar, H., & Shaari, H. (2019). Ownership Structure and Real Earnings Management: Jordanian Evidence. International Journal of Business Management and Commerce; 4(2).

Al-Matari, E. M., Al-Swidi, A. K., & Fadzil, F. H. (2014). The effect of board of directors characteristics, audit committee characteristics and executive committee characteristics on firm performance in Oman: An empirical study. Asian Social Science, 10(11), 149-171.

Alnabsha, A., Abdou, H. A., Ntim, C. G., & Elamer, A. A. (2018). Corporate boards, ownership structures and corporate disclosures: Evidence from a developing country. Journal of Applied Accounting Research, 19(1), 20-41.

Alqatamin, R. M. (2018). Audit committee effectiveness and company performance: Evidence from Jordan. Accounting and Finance Research, 7(2), 48.

Alshhadat, M. (2017) Effect of Corporate Governance on the IC. Disclosure in Jordan. A Thesis Submitted to Henley Business School in Fulfilment of the Requirement for the Award of the Degree of Doctor of Philosophy.

Alves, S. & Martins, J. (2010). The impact of intangible assets on financial and governance policies: A literature review. Portuguese Journal of Management Studies, 15(1), 87-107.

Alvino, F., Vaio, A. D., Hassan, R., & Palladino, R. (2020). IC. and Sustainable Development: A Systematic Literature Review. Journal of IC., 22(1), 76–94.

Andersen, R., & McLean, R. (2000). Accounting for the Creation of Value. Ongoing Research Project Sponsored by the Canadian Institute of Chartered Accountants.

Anderson, R. C., & Bizjak, J. M. (2003). An empirical examination of the role of the CEO and the compensation committee in structuring executive pay. Journal of Banking & Finance, 27(7), 1323-1348.

Andreeva, T. and Garanina, T. (2016), "Do all Elements of IC. Matter for Organizational Performance? Evidence from Russian Context", Journal of IC., Vol. 17 No. 2, pp. 397-412, doi: 10.1108/JIC-07-2015-0062.

Andriessen, D., & Tissen, R. (2000). Weightless Wealth: Finding your Real Value in a Future of Intangible Assets. London: Financial Times/Prentice Hall.

Anifowose, M., Abdul-Rashid, H. M., & Annuar, H. A. (2017) IC. disclosure and corporate market value: does board diversity matter? J Acc Emerg Econ 7:369–398.

Anifowose, M., Rashid, H. M., Annuar, H. A., & Ibrahim, H. (2018). IC. Efficiency and Corporate Book Value: Evidence From Nigerian Economy. Journal of IC., 19(3), 644– 668.

Anuonye F. (2016) Effect of IC. on Return on Asset of Insurance Firms in Nigeria. International Journal of Human Resource Management, 20(9), 1945-1964.

Apochi, J. G., Mohammed, S. G., Onyabe, J. M., & Yahaya, O. A. (2022). Does corporate governance improve financial performance? Empirical evidence from Africa listed consumer retailing companies. Management Studies, 12(1), 111-124.

Ararat, M., Black, B. S., & Yurtoglu, B. B. (2016). The effect of corporate governance on firm value and profitability: Time-series evidence from Turkey. Emerging Markets Review, 30, 113–132. https://doi.org/10.1016/j.ememar.2016.10.001

Aronmwan E., J. & Abadua HS (2013) Audit committee report in corporate financial statements: Users' perception in Nigeria. European Journal of Accounting Auditing and Finance Research 1 (1): 16-28.

Asiriuwa, O., Aronmwan, E. J., Uwuigbe, U., & Uwuigbe, O. R. (2018). Audit committee attributes and audit quality: A benchmark analysis. Business: Theory and Practice, 19, 37–48. https://doi.org/10.3846/btp.2018.05

Atinc, G., Simmering, M. J., & Kroll, M. J. (2012). Control variable use and reporting in macro and micro management research. Organizational Research Methods, 15(1), 57-74.

Baba, B. U., & Baba, U. A. (2019). The effect of ownership structure on social and environmental reporting in Nigeria: the moderating role of IC. disclosure. Journal of global responsibility, 12(2), 210-244.

BabíoArcay, M. R., & Vázquez, M. F. M. (2005). Corporate characteristics, governance rules and the extent of voluntary disclosure in Spain. Advances in Accounting, 21, 299-331.

Baldenius, T., Melumad, N., & Meng, X. (2014). Board composition and CEO power. Journal of financial Economics, 112(1), 53-68.

Baldini, M.A., & Liberatore, G., (2016) Corporate governance and IC. disclosure. An empirical analysis of the Italian listed companies. Corporate Ownership & Control / Volume 13, Issue 2, Winter 2016, Continued.

Barako, D. G., Hancock, P., & Izan, H. Y. (2006). Factors Influencing Voluntary Corporate Disclosure by Kenyan Companies. Corporate Governance: An International Review, 14(2), 107–125. https://doi.org/10.1111/J.1467-8683.2006.00491

Barney, J. (1991) Firm Resources and Sustained Competitive Advantage. Journal of Management, 17, 99-120. http://dx.doi.org/10.1177/014920639101700108

Bartholomeusz, S., & Tanewski, G. (2006). The relationship between family firms and corporate governance. Journal of Small Business Management, Vol.44, no.2, pp.245–267.

Basel Committee on Banking Supervision. (1998). Framework for internal control systems in banking organisations. Bank for International Settlements. Retrieved from https://www.bis.org/publ/bcbs40.htm

Baysinger, B. D., & Butler, H. N. (1985). The role of corporate law in the theory of the firm. The journal of law and Economics, 28(1), 179-191.

Be´dard, J., Chtourou, S. M., & Courteau, L. (2004). The effect of audit committee expertise, independence, and activity on aggressive earnings management. Auditing: A journal of practice & theory, 23(2), 13-35.

Beasley, M. S. (1996). An Empirical Analysis of the Relationship Between the Board of Directors Composition and Financial Statement Fraud. The Accounting Review, 71(4), 443-465.

Beasley, M. S., & Salterio, S. E. (2001). The relationship between board characteristics and voluntary improvements in audit committee composition and experience. Contemporary Accounting Research, 18(4), 539-570.

Beasley, M.S. (1996). An Empirical Analysis of the Relation between the Board of Director Composition and Financial Statement Fraud. The Accounting Review, Open Journal of Business Management 71, 443-465.

Beattie, V. & Thomson, S.J. (2007) Lifting the Lid on the Use of Content Analysis to Investigate IC. Disclosures. Accounting Forum, Vol. 31, No. 2, pp.129–163.

Bedard, J., & Gendron, Y. (2010). Strengthening the Financial Reporting System: Can Audit Committees Deliver? International Journal of Auditing, 14(2), 174-210.

Beekes, W., & Brown, P. (2006). Do better-governed Australian firms make more informative disclosures? Journal of Business Finance & Accounting, 33(3–4), 422–450. https://doi.org/10.1111/j.1468-5957.2006.00614.x

Berezinets, I., Garanina, T. & Ilina, Y. (2016). IC. of a board of directors and its elements: introduction to the concepts. Journal of IC. 17. 632-653. 10.1108/JIC-01-2016-0003.

Bernstein, R. S., Buse, K., & Slatten, L. A. (2015). Nonprofit board performance: Board members' understanding their roles and responsibilities. American Journal of Management, 15(1), 24.

Berthelot, S., Coulmont, M., & Serret, V. (2012). Do investors value sustainability reports? A Canadian study. Corporate social responsibility and environmental management, 19(6), 355-363.

Bhagat, S., & Black B. (2002). The Non-Correlation Between Board Independence and Long-term Firm Performance. Journal of Corporation Law, 27(2), 231-274.

Bhagat, S., & Black, B. (2000). The non-correlation between board independence and long-term firm performance. Journal of Corporation Law, 27(2), 231–274.

Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. Journal of Corporate Finance, 14(3), 257–273. https://doi.org/10.1016/j.jcorpfin.2008.03.006

Birkey, R.N., Michelon, G., Patten, D.M. and Sankara, J. (2016), “Does Assurance on CSR Reporting Enhance Environmental Reputation? An Examination in the US Context”, Accounting Forum, Vol. 40 No. 3, pp. 143-152, doi: 10.1016/j.accfor.2016.07.001.

Black, B. S., Carvalho, A. G., Khanna, V., Kim, W., & Yurtoglu, B. B. (2017). Which aspects of corporate governance matter in emerging markets: Evidence from Brazil, India, Korea, and Turkey. Journal of Applied Corporate Finance, 29(1), 108–115. https://doi.org/10.1111/jacf.12225

Black, K. (2004). Business Statistics: For Contemporary Decision Making (4th ed.). Delhi, India: John Wiley & Sons (Asia) Pte. Ltd.

BOFIA (2001). Bank and other Financial Institution Act, 2001.

Bona-Sánchez, C., Fernández-Senra, C. L., & Pérez-Alemán, J. (2017). Related-party transactions, dominant owners and firm value. BRQ Business Research Quarterly, 20(1), 4-17.

Bonn, I. (2004). Board Structure and Firm Performance: Evidence from Australia. Journal of Business Paper Vol 10 (1) http://10.5172/jmo.2004.10.1.14

Bontis N. (1998), IC.: an exploratory study that develop measures and model. Management Decision 36/2 [1998] 63–76

Bontis, N. (1998). IC.: An exploratory study that develops measures and model", Management Decision, 36(2), 63-76.

Bontis, N. (2001). Assessing Knowledge Assets: A Review of the Models Used to Measure IC., International Journal of Management Reviews, 3(1), 41-60.

Bontis, N. (2004). National IC. Index: A United Nations Initiative for the Arab Region. Journal of IC., 5(1), 13-39.

Bontis, N., Crossan, M. M., & Hulland, J. (2002), Managing an Organizational Learning System by Aligning Stocks and Flows. Journal of Management Studies, 39(4), 437–469.

Bontis, N., Dragonetti, N. C., Jacobsen, K., & Roos, G. (1999). The Knowledge Toolbox: A Review of the Tools Available to Measure and Manage Intangible Resources. European Management Journal, 17(4), 391-402.

Boone, A. L., Field, L. C., Karpoff, J. M., & Raheja, C. G. (2007). The determinants of corporate board size and composition: An empirical analysis. Journal of financial Economics, 85(1), 66-101.

Bose, T & Thomas, Y. (2017). Linking IC. and Intellectual Property to Company Performance. Management Decision, 43(9), 1161-1185.

Boyd, B.K. (1994). Board control and CEO compensation. Strategic management journal, 15 (5), 325-344.

Bozzolan, S., Favotto, F. & Ricceri, F. (2003). Italian Annual IC. Disclosure. Journal of IC. Vol. 4, No. 4, pp.543–558.

Bozzolan, S., O'Regan, P. & Ricceri, F. (2006). IC. Disclosure. A Comparison of Italy and the UK. Journal of Human Resource Costing & Accounting, Vol. 10, No. 2, pp.92–113.

Braiotta, L. (2000). The audit committee handbook (4th ed.). Wiley.

Braiotta, L., & Sommer Jr, A. A. (1987). The essential guide to effective corporate board committees. Prentice-Hall Publishers

Breaugh, J. A. (2008). Important considerations in using statistical procedures to control for nuisance variables in non-experimental studies. Human Resource Management Review, 18(4), 282-293.

Brooking, A. (1996). IC.: Core Assets for the Third Millennium Enterprise. Thomson Business Press, London, United Kingdom

Brown, P., Beekes, W., & Verhoeven, P., (2011). Corporate governance, accounting and finance: A review. Accounting and Finance. 51:96-172.

Bushman, R. M., & Smith, A. J. (2003). Transparency, financial accounting information, and corporate governance. Financial accounting information, and corporate governance. Economic Policy Review, 9(1).

Cadbury, A. (1992). Report of the Committee on the Financial Aspects of Corporate Governance. London: Gee & Co. Ltd.

Campbell, D, McPhail, K., & Slack, R. (2009). Face Work in Annual Reports: A study of the Management of Encounter Through Annual Reports, Informed by Levinas and Bauman. Accounting, Auditing and Accountability Journal, Vol. 22, No. 6, pp. 907– 932.

Campbell, D. J. (2000). Legitimacy Theory or Managerial Reality Construction? Corporate Social Disclosure in Marks and Spencer Plc Corporate Reports, 1969–1997. Accounting Forum. Vol. 24, No. 1, pp. 80–100.

Campbell, D., & Abdul Rahman, M. (2010). A Longitudinal Explanation of IC. Reporting in Marks & Spencer Annual Reports 1978–2008. British Accounting Review. Vol. 32, pp. 56–70.

Campbell, D., Craven, B., & Shrives, P. (2003). Voluntary Social Reporting in Three FTSE Sectors: A Comment on Perception and Legitimacy. Accounting, Auditing and Accountability Journal, Vol.16, No.4, pp.558-581.

Carcello, J. V., & Neal, T. L. (2003). Audit committee characteristics and auditor dismissals following “new” going-concern reports. The accounting review, 78(1), 95-117.

Carter, C. B., & Lorsch, J. W. (2004). Back to the drawing board: Designing corporate boards for a complex world. Harvard Business Press.

Carver, J., (1990) Boards that Make a Difference, Jossey-Bass, San Francisco, CA

Casey, R.J. and Grenier, J.H. (2015), “Understanding and Contributing to the Enigma of Corporate Social Responsibility (CSR) Assurance in the United States”, Auditing: A Journal of Practice and Theory, Vol. 34 No. 1, pp. 97-130, doi: 10.2308/ajpt-50736

Celenza, D., & Rossi, F. (2013). Ownership Concentration, IC. Disclosure, and Firm Performance: Evidence from Italy. China-USA Business Review, ISSN 1537-1514, Vol. 12, No. 12, 1157-1174.

Celik, O., Ecer, A., & Karabacak, H, (2006). Disclosure of forward looking information : Evidence from listed companies on Istanbul stock exchange (ISE). Investment Management and Financial Innovations, 3(2), 197-216.

Çelik, S., & Isaksson, M. (2014). OECD Journal: Financial Market Trends: Institutional investors and ownership engagement.

Chang, S., Chen S., & Lai, J. (2008). The Effect of Alliance Experience and IC. on the Value Creation of International Strategic Alliances. Omega Journal of Social Science, 36(2), 298–316.

Chang, W. S. (2010). The Different Proportion of IC. Components and Firms' Market Performance: Evidence from Taiwan. The International Journal of Business and Finance Research, 4(4), 121-134.

Chang, W. S., & Hsieh, J. J. (2011). IC. and Value Creation-Is Innovation Capital a Missing Link? International Journal of Business and Management, 6(2), 3-12.

Chau, G. K., & Gray, S. J. (2002). Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore. The International journal of accounting, 37(2), 247-265.

Chen, J.P. & Jaggi, B. (2000). Association Between Independent Non-Executive Directors, Family Control and Financial Disclosures in Hong Kong, Journal of Accounting and Public Policy, Volume 19 (5) pp. 285-310, https://doi.org/10.1016/S0278-4254(00)00015-6.

Chen, K. D. and Wu, A. (2016). The Structure of Board Committees. Boston, MA: Harvard Business School.

Chen, M. C., Cheng, S. J., & Hwang, Y. (2005). An Empirical Investigation of the Relationship Between IC. and Firms' Market Value and Financial Performance. Journal of IC., 6(2), 159-176.

Chen, M. Y., Lin, J. Y., Hsiao, T. Y., & Lin, T. W. (2010), Invested Resource, Competitive IC., and Corporate Performance. Journal of IC., 11(4), 433-450.

Cheng, E. C., & Courtenay, S. M. (2006). Board composition, regulatory regime and voluntary disclosure. The international journal of accounting, 41(3), 262-289.

Chiang, H. T., & He, L. J. (2010). Board supervision capability and information transparency. Corporate Governance: An International Review, 18(1), 18-31.

Chiru, M., & Gherghina, S. (2019). Committee chair selection under high informational and organizational constraints. Party Politics, 25(4), 547-558.

Cicero, D. C., Wintoki, M. B., & Yang, T. (2013). How do public companies adjust their board structures? Journal of Corporate Finance, 23, 108–127. https://doi.org/10.1016/j.jcorpfin.2013.08.007

Clarke, M., Seng, D. and Whiting, R.H. (2011), "IC. and Firm Performance in Australia" Journal of IC., Vol. 12 No. 4, pp. 505-530, doi: 10.1108/14691931111181706

Clulow, V., Julie, G. & Carol, B. (2003). The Resource-Based View and Sustainable Competitive Advantage: The Case of a Financial Services Firm. Journal of European Industrial Training. 27. 220-232. 10.1108/03090590310469605.

Cohen, L., Manion, L., & Morrison, K. (2018). Research methods in education (8th ed.). Routledge. https://doi.org/10.4324/9781315456539

Coles, J. L., Daniel, N. D., & Naveen, L. (2008). Boards: Does one size fit all? Journal of Financial Economics, 87 (2), 329-356.

Conyon, M. J., & He, L. (2004). Compensation committees and CEO compensation incentives in US entrepreneurial firms. Journal of Management Accounting Research, 16(1), 35–56. https://doi.org/10.2308/jmar.2004.16.1.35

Conyon, M. J., & Peck, S. I. (1998). Board control, remuneration committees, and top management compensation. Academy of management journal, 41(2), 146-157.

Conyon, M. J., Gregg, P., & Machin, S. (1995). Taking care of business: Executive compensation in the United Kingdom. The Economic Journal, 105(430), 704–714. https://doi.org/10.2307/2235029

Cormier, D., Magnan, M. and Barbara, V.V. (2005), "Environmental Disclosure Quality in Large German Companies: Economic Incentives, Public Pressures or Institutional Conditions? European Accounting Review, vol.14 (1) , pp. 3-39

Cotter, J., & Silvester, M. (2003). Board and Monitoring committee independence. Abacus, 39, 211-232.

Craswell, A. T., & Taylor, S. L. (1992). Discretionary disclosure of reserves by oil and gas companies: an economic analysis. Journal of Business Finance & Accounting, 19(2), 295-308.

Cumby, J., & Conrod, J. (2001). Non-financial performance measures in the Canadian biotechnology industry. Journal of IC., 2(3), 261-272.

Cuozzo, B., Dumay, J., Palmaccio, M. and Lombardi, R. (2017), "IC. Disclosure: A Structured Literature Review", Journal of IC., Vol. 18 No. 1, pp. 9-28, doi: 10.1108/ JIC-10-2016-0104

Daily, C. M., & Dalton, D. R. (2003). Bankruptcy and corporate governance: The impact of board composition and structure. Academy of Management journal, 37(6), 1603-1617.

Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of Directors and Financial Performance: A Meta-Analysis. The Academy of Management Journal, 42(6), 674–686. https://doi.org/10.2307/256988

Damagum, Y.M & Chima, E. (2013). An empirical analysis of corporate governance codes: accountability vs enterprises, evidence from Nigeria. International Journal of Finance and Accounting. 3(1), 16-28.

D'Amato, A. (2020). Does IC. impact firms' capital structure? Exploring the role of firm risk and profitability. Managerial finance, 47(9), 1337-1356.

Dang, C., Li, Z., & Yang, C. (2018). Measuring firm size in empirical corporate finance. Journal of Banking & Finance, 86, 159–176. https://doi.org/10.1016/j.jbankfin.2017.09.006

Darren H., Seema M. & Kamran A. (2019). Corporate governance and turnaround: Evidence from Australia. Australian Journal of Management 1–30

Deegan, C. (2000). Financial Accounting Theory. Sydney, Australia: McGraw-Hill.

Deegan, C. (2002). Introduction: The Legitimizing Effect of Social and Environmental Disclosures – A Theoretical Foundation. Accounting, Auditing and Accountability Journal, Vol.15, No.3, pp.282-311.

Deegan, C., & Gordon, B. (1996). A Study of the Environmental Disclosure Policies of Australian corporations. Accounting and Business Review. Vol. 26, no. 3, pp. 187– 99

Demartini, A., DelBaldo B., & Paoloni, A.(2017). IC. and Financial Performance of Italian Firms Journal of IC., 6(2), 159-176.

Demartini, A., Trucco, S. (2016). Does IC. Disclosure Matter for Audit Risk? Evidence from the UK and Italy. Journal of IC., 6(2).

Demsetz, H. & Villalonga, B. (2001). Ownership Structure and Corporate Performance. Journal of Corporate Finance 7(1) 209–233 www.elsevier.comrlocatereconbase

Deutsch, Y. (2005). The impact of board composition on firms' critical decisions: A meta-analytic review. Journal of Management, 31(3), 424–444. https://doi.org/10.1177/0149206304272185

Dhaliwal, D., Naiker, V., & Navissi, F. (2010). The Association Between Accruals Quality and the Characteristics of Accounting Experts and Mix of Expertise on Audit Committees. Contemporary Accounting Research, 27(3), 787-827

Donaldson, L. & Davis, J. H., Schoorman, F. D. (1991). Toward a stewardship theory of management. Academy of Management review, 22(1), 20-47.

Dowling, J. & Pfeffer, J. (1975) Organizational Legitimacy: Social Values and Organizational Behavior. Pacific Sociological Review, 18, 122-136. https://doi.org/10.2307/1388226

Dulewicz, V., & Herbert, P. (2003). Does the composition and practice of boards of directors bear any relationship to the performance of their companies?. Corporate Governance: An International Review, 12(3), 263-280.

Dyck, A., Lins, K. V., Roth, L., & Wagner, H. F. (2019). Do institutional investors drive corporate social responsibility? International evidence. Journal of financial economics, 131(3), 693-714.

Dženopoljac, V., Janoševic, S. and Bontis, N. (2016), "IC. and Financial Performance in the Serbian ICT Industry", Journal of IC., Vol. 17 No. 2, pp. 373-396, doi: 10.1108/JIC-07-2015-0068.

Eisenhardt, K. M. (1989). Building theories from case study research. Academy of management review, 14(4), 532-550.

El-Bassiouny, D., & El-Bassiouny, N. (2019). Diversity, corporate governance and CSR reporting: A comparative analysis between Egypt and the USA. Management of Environmental Quality: An International Journal, 30(1), 116–136. https://doi.org/10.1108/MEQ-12-2017-0158

Elgammal, M.M., Hussainey, K. and Ahmed, F. (2018), "Corporate governance and voluntary risk and forward-looking disclosures", Journal of Applied Accounting Research, Vol. 19 No. 4, pp. 592-607.

Elisabeth A., Fabienne B., Stéphane L., Laurence M., Miloš P., & Walliser E., (2021). Voluntary disclosure and IC.: how CEOs mobilise discretionary accounting narratives to account for value creation stemming from IC., Post-Print hal-03185153, HAL.

Elnahass, M., Trinh, V. Q., & Li, T. (2020). Board busyness, performance and financial stability: Does bank type matter? The European Journal of Finance, 26(4–5), 374–401. https://doi.org/10.1080/1351847X.2019.1639525

Elyasiani, E. & Zhang, L. (2015), CEO Entrenchment and Corporate Liquidity Management. Journal of Banking & Finance, 54, (C), 115-128

Elzahar, H., & Hussainey, K. (2012). Determinants of narrative risk disclosures in UK interim reports. The Journal of Risk Finance, 13(2), 133-147.

Eminet, A. and Guedri, Z. (2010). The role of nominating committees and director reputation in shaping the labor market for directors: An empirical assessment'. Corporate Governance: An International Review, 18, 557– 74.

Eng L. & Mak, Y. T. (2003). Corporate Governance and Voluntary Disclosure. Journal of Accounting and Public Policy Vol. 22(4):325-345 DOI:10.1016/S0278-4254(03)00037-1.

Enofe AO, Mgbame C, Aderin A, Ehi-Oshio OU (2013) Determinants of audit quality in the Nigerian business environment. Research Journal of Finance and Accounting 4(4), 36-43.

Enofe, A.O., Mgbame, C., &Ovie, S. O. (2013). Human resources accounting disclosures in Nigeria quoted firms. Research Journal of Finance and Accounting, 4, 13.

Ezeagba, C. E. (2020). Corporate governance and disclosure practices in Nigerian listed firms. Journal of Accounting and Financial Management, 6(4), 29–37.

Fabrizio C/ & Antonio P. (2008). Exploring the Effects of Corporate Governance on IC. Disclosure: An Analysis of European Biotechnology Companies. European Accounting Review

Fabrizio Cerbioni & Antonio Parbonetti (2007) Exploring the Effects of Corporate Governance on IC. Disclosure: An Analysis of European Biotechnology Companies, European Accounting Review, 16:4, 791-826, DOI: 10.1080/09638180701707011.

Fama, E. F., & Jensen, M. (1983). Agency Problems and Residual Claims. Journal of Law and Economics. Vol. 26, No. 2, pp. 327–349.

Fama, E. F., & Jensen, M. (1983). Separation of Ownership and Control. Journal of Law and Economics. Vol. 26, No. 2, pp. 301–326.

Farrell, K. A., & Hersch, P. L. (2005). Additions to corporate boards: The effect of gender. Journal of Corporate Finance, 11(1-2), 85–106. https://doi.org/10.1016/j.jcorpfin.2003.12.001

Fauzi, F., & Locke, S. (2012). Board structure, ownership structure and firm performance: A study of New Zealand listed-firms. Asian Academy of Management Journal of Accounting and Finance, 8(2), 43–67. https://doi.org/10.2139/ssrn.2115627

Ferchichi, J., & Skanji, M. (2017). Audit committee and board effectiveness against voluntary disclosure in the pre and post enactment of the Tunisian Central Bank Circular n 2011-06 of good governance practices. International Research Journal of Finance and Economics, 159, 27-45.

Field, L., Lowry, M., & Shu, S. (2005), Does Disclosure Deter or Trigger Litigation. Journal of Accounting and Economics. Vol. 39, No. 3, pp. 487–507.

Filip, A. and Raffournier, B., (2014), "Financial Crisis and Earnings Management: The European Evidence", The International Journal of Accounting, 49: 455-478

Financial Reporting Council of Nigeria (FRCN). (2018). Nigerian Code of Corporate Governance 2018. Retrieved from https://www.financialreportingcouncil.gov.ng

Finkelstein, S. & Hambrick, D. (1996) Strategic Leadership: Top Executives and Their Effects on Organizations. West Publishing Company, St. Paul, Minneapolis.

Firer, S., & Williams, S. M. (2015). Firm ownership structure and IC. disclosures. South African Journal of Accounting Research, 19(1), 1-18.

Foong, S.Y., Loo, S.C. & Balaraman, R. (2009). IC. Reporting and Corporate Characteristics of Public-Quoted Companies in Malaysia. Journal of Financial Reporting and Accounting, Vol. 7, No. 1, pp.17–35.

Forbes, D. P., & Milliken, F. J. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. Academy of management review, 24(3), 489-505.

Forker, J. (1992). Corporate Governance and Disclosure Quality. Accounting & Business Research, 22, 111-124.

Francoeur, C., Aubé, C., Sponem, S., & Farzaneh, F. (2018). What do we know about what is going on inside the boardroom?. Team Performance Management: An International Journal, 24(5/6), 250-264.

Frank, M. Z., & Goyal, V. K. (2009). Capital structure decisions: Which factors are reliably important? Financial Management, 38(1), 1–37. https://doi.org/10.1111/j.1755-053X.2009.01026.x

Freeman, R. E., Wicks, A.C., & Parmar, B. (2004). Stakeholder Theory and the Corporate Objective Revisited. Organization Science. Vol. 15, No. 3, pp. 364–369.

Freeman, R.E. (1984). Strategic Management: A stakeholder Approach. Pitman, Boston.

Gan, K. & Rajasegaran, K. (2004). IC. Disclosure in Companies Quoted in the Kuala Lumpur Stock Exchange (KLSE) in 2002', Paper Presented at the International Conference on Corporate Governance and Reporting Organized by Universiti Utara Malaysia, 25 May, Kuala Lumpur.

Gangi, F. and Trotta, C. (2013), "Determinants of Corporate Social Disclosure Through a Multi-perspective Approach: Evidences From the Target Companies of Socially Responsible Funds", Accounting and Control for Sustainability, Vol. 26, pp. 33-75, doi: 10.1108/S1479-3512(2013) 0000026002.

García-Meca, E., & Pucheta-Martínez, M. C. (2005). How institutional investors on boards impact on stakeholder engagement and corporate social responsibility reporting. Corporate Social Responsibility and Environmental Management, 25(3), 237–249. https://doi.org/10.1002/csr.1457

García-Sánchez, I. M., Rodríguez-Ariza, L., & Frías-Aceituno, J. V. (2020). The cultural system and integrated reporting. International Business Review, 29(5), 101651. https://doi.org/10.1016/j.ibusrev.2020.101651

Gay, L. R. Diehl. PL (1996). Research Methods for Business and Management.

Geletkanycz, M. A., & Hambrick, D. C. (1997). The external ties of top executives: Implications for strategic choice and performance. Administrative science quarterly, 654-681.

Ghafran, C., & O'Sullivan, N. (2017). The impact of audit committee expertise on audit quality: Evidence from UK audit fees. The British Accounting Review, 49(6), 578-593.

Ghafran, C., & Yasmin, S. (2018). Audit committee chair and financial reporting timeliness: A focus on financial, experiential and monitoring expertise. International Journal of Auditing, 22(1), 13-24.

Ghosh, S. and Mondal, A. (2009), "Indian Software and Pharmaceutical Sector IC and Financial Performance", Journal of IC., Vol. 10 No. 3, pp. 369-388, doi: 10.1108/14691930910977798.

Goh, P.C., & Lim, K.P. (2004). Disclosing IC. in Company Annual Reports: Evidence from Malaysia. Journal of IC. Vol. 5, No. 3, pp.500–510.

Gompers, P., Ishiee, J., & Metrick, A. (2003). Corporate governance and equity prices. Quarterly Journal of Economics, 118, 107-155.

Goyal V.K. & Park, C.W. (2002) Board Leadership Structure and CEO Turnover. Journal of Corporate Finance, 8, 49-66. http://dx.doi.org/10.1016/S0929-1199(01)00028-1

Grassa, R., Moumen, N., & Hussainey, K. (2021). Do ownership structures affect risk disclosure in Islamic banks? International evidence. Journal of Financial Reporting and Accounting, 19(3), 369-391.

Grassi, L., Giorgino, M., Raimondo, S., & Romani, G. (2016). The induction of board directors: A case study perspective. Corporate Ownership & Control, 13(4), 207-223.

Gray, S., & Nowland, J. (2018). Director workloads, attendance and firm performance. Accounting Research Journal, 31(2), 214-231.

Gu, F. and Lev, B. (2011), "Intangible Assets: Measurement, Drivers, and Usefulness", in Giovanni, S. (Ed.), Managing Knowledge Assets and Business Value Creation in Organizations: Measures and Dynamics, IGI Global, Hershey, PA, pp. 110-124.

Guerrero-Villegas, J., Perez-Calero, L., Hurtado-Gonzalez, J.M. and Giraldez-Puig, P. (2018), "Board Attributes and Corporate Social Responsibility Disclosure: a Meta-Analysis", Sustainability Journal, Vol. 10 No. 12, p. 4808, doi: 10.3390/su10124808.

Gul, F. & Leung, S. (2004). Board Leadership, Outside Directors' Expertise and Voluntary Corporate Disclosures. Journal of Accounting and Public Policy. 23. 351-379. 10.1016/j.jaccpubpol.2004.07.001.

Guthrie, J., & Petty, R. (2000). IC.: Australian annual reporting practices. Journal of IC., 1(3), 241–251. https://doi.org/10.1108/14691930010350800

Guthrie, J., Johanson, U., Bukh, P. N., & Sa'nchez, P. (2007). Intangibles and the transparent enterprise: new strands of knowledge. Journal of IC., 4(4), 429-440.

Guthrie, J., Petty, R. & Ricceri, F. (2006). The Voluntary Reporting of IC. Journal of IC. Vol. 7 (2) pp. 254 – 271.

Guthrie, M. & Petty, I. (2010). IC. Literature Review: Measurement, Reporting and Management. Journal of IC. Vol. 3, No. 2, pp. 155–176.

Habbash, M. (2010). Corporate governance and corporate social responsibility disclosure: Evidence from Saudi Arabia. Social Responsibility Journal, 12(4), 740–754. https://doi.org/10.1108/SRJ-07-2015-0088

Habib, A., & Azim, I. (2008). Corporate governance and the value-relevance of accounting information: Evidence from Australia. Accounting Research Journal, 21(2), 167-194.

Haji, A. A., & Ghazali, N. A. M. (2012). IC. disclosure trends: some Malaysian evidence. Journal of IC., 13(3), 377-397.

Haji, A. A., &Mubaraq, S. (2012). The trends of IC. disclosures: evidence from the Nigerian banking sector. Journal of Human Resource Costing and Accounting, 16, (3), 184-209.

Haniffa, R. & Cooke, T.E. (2002) Culture, Corporate Governance and Disclosure in Malaysian Corporations, Abacus Vol. 38 Issue 3, p.317-349.

Haniffa, R. & Cooke, T.E. (2005) Impact of Culture and Governance Structure on Corporate Social Reporting, Journal of Accounting and Public Policy, Vol. 24 Issue 5, p.391-430

Harrison, J. R. (1987). The strategic use of corporate board committees. California Management Review, 30(1), 109-125.

Hassan, O.A.G. and Marston, C. (2019). Corporate financial disclosure measurement in the empirical accounting literature: a review article. International journal of accounting, 54(2).

Hatane, S. E., Nathania, F., Lamuel, J., Darusman, F., & Devie. (2020). IC. Disclosures and Corporate Governance in Gaining the Firms' Non-Discretionary Profits and Market Value in ASEAN-5. Organizations and Markets in Emerging Economies, 11(22), 276. https://doi.org/10.15388/omee.2020.11.34.

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. J. Acc. Econ. 31:405-440.

Healy, P., & Palepu, K. (2011). Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature. Journal of Accounting and Economics. Vol. 31, pp. 405–440.

Healy, P., Hutton, A., & Palepu, K. (1999). Stock Performance and Intermediation Changes Surrounding Sustained Increases in Disclosure. Contemporary Accounting Research. Vol. 16, No. 3, pp. 485–520.

Herdan, A., & Szczepańska, K. (2011). Directors remuneration and companies' performance the comparison of listed companies in Poland and UK. Foundations of Management, 3(2), 41-54.

Hermalin, B. E., & Weisbach, M. S. (1998). Endogenously chosen boards of directors and their monitoring of the CEO. American Economic Review, 88(1), 96–118.

Hermalin, B. E., & Weisbach, M. S. (2003). Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature. Economic Policy Review, 9(1).

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

Hillman, A.J. (2005) Politicians on the Board of Directors: Do Connections Affect the Bottom Line? Journal of Management, 31, 464-481.

Hisham, K. M., Ishak, Z., Nor, A. & Manaf, A. (2014). Impact of Audit Committee Characteristics on Corporate Voluntary Disclosure of IC in 146 Malaysian Quoted Firms for the Year 2009 International Conference on Accounting Studies

2014, ICAS 2014, 18-19 August 2014, Kuala Lumpur, Malaysia Procedia - Social and Behavioral Sciences 164 (2014) 486 – 492.

Ho, P-L, G. Tower, and D. Barako (2008). "Improving Governance Leads to Improved Communication." Corporate Ownership and Control, Vol. 5, No. 4, pp. 26-33.

Ho, S.S. & Wong, K.S. (2001) Study of the Relationship Between Corporate Governance Structure and the Extent of Voluntary Disclosure. Journal of International Accounting, Auditing and Taxation, 10, 139-156.

http://www.sciencedirect.com/science/article/pii/S1061951801000416

Holland, J. (2006). Fund Management, IC., Intangibles and Private Disclosure. Published 2002 by the Department of Accounting and Finance, University of Glasgow, Glasgow G12 8LE ISBN 0 85261 726 7

Hossain, M., Tan, L. M., & Adams, M. (1994). Voluntary disclosure in an emerging capital market: Some empirical evidence from companies listed on the Kuala Lumpur Stock Exchange (pp. 334-351). Department of Accountancy, Massey University.

Huang, C.C. (2010). IC. Information: Preparer's and User's Perspectives', Articles of Merit Award on PAIB 2009, pp.53–80, Malaysian Institute of Accountants, Kuala Lumpur.

Huang, C.C., Luther, R., & Tayles, M. (2007). An Evidence-Based Taxonomy of IC. Journal of IC., Vol. 8, No. 3, pp.386–408.

Huang, C.C., Tayles, M., & Luther, R. (2010). Contingency Factors Influencing the Availability of Internal IC. Information. Journal of Financial Reporting and Accounting, Vol. 8, No. 1, pp.4–21.

Huse, M. (2005), Boards, Governance and Value Creation: The Human Side of Corporate Governance, Cambridge University Press, UK

Inkinen, H. (2015), "Review of Empirical Research on IC. and Firm Performance", Journal of IC., Vol. 16 No. 3, pp. 518-565, doi: 10.1108/JIC-01-2015-0002.

Institute of Chartered Accountants in England and Wales (ICAEW), (2022

Isabell O., Paloma B., & Fabra M.E. (2021). Exploring processes in Spanish, German and UK boards: a measurement framework of board know-how, board diversity and directors' interactions interrelation. Team Performance Management: An International Journal Vol. 27 (7/8) 553-570

Jahn, J., & Brühl, R. (2019). Can bad news be good? On the positive and negative effects of including moderately negative information in CSR disclosures. Journal of Business Research, 97, 117-128.

Jain, A., Keneley, M. and Thomson, D. (2015), "Voluntary CSR Disclosure Works! Evidence from AsiaPacific Banks", Social Responsibility Journal, Vol. 11 No. 1, pp. 2-18, doi: 10.1108/SRJ-10- 2012-0136

James G. (2020). The management, measurement and the reporting of IC. Journal of IC., Vol. 2 (1) 27-41

James, M. L., Suresh, K. J., & Leanne, L. R. (2006). Organizational legitimacy and social values: An examination of corporate social reporting. Journal of Business Ethics, 63(2), 205–217. https://doi.org/10.1007/s10551-005-3245-6

Jensen, M. C. and Meckling, W. H. (1976). ‘ Theory of the firm: Managerial behavior, agency costs and ownership structure’. Journal of Financial Economics, 3, 305– 60.

Jensen, M. C., & Meckling, W. H. (1976). Theory of fFrm: Managerial Behaviour, Agency Costs and Ownership Structure. Journal of Financial Economics. Vol. 2, No. 4, pp. 305– 360.

Jensen, M. C., (1993). The Modern Industrial Revolution Exit, and the Failure of Internal Control Systems. Journal of Finance. Vol. 48, no. 3, pp. 831–880.

Jerubet, C., Omagwa, J., & Musiega, D. (2017). Effect of audit committee characteristics on voluntary disclosure among firms listed at Nairobi Securities Exchange, Kenya. International Journal of Finance and Accounting, 2(6), 86–105.

Jiang, Y., & Peng, M. W. (2011). Are Family Ownership and Control in Large Firms Good, Bad, or Irrelevant?. Asia Pacific Journal of Management. Vol. 28, pp. 15–39.

John, D. & Guthrie, J. (2016). Involuntary Disclosure of IC.: Is it Relevant? Journal of IC. 18(1):29-44 DOI:10.1108/JIC-10-2016-0102

Johnson, S. G., Schnatterly, K. and Hill, A. D. (2013). ‘ Board Committee beyond independence: Social capital, human capital, and demographics’. Journal of Management, 39, 232– 62.

Joni J., Kamran A. & Jane H. (2020). Politically connected boards, family business groups and firm performance Evidence from Indonesia. Journal of Accounting & Organizational Change Vol. 16 (1) 93-121

Joseph V. C, Dana R. H, Terry L. N & Richard A. R, (2020). Board Characteristics and Audit Fees. Contemporary Accounting Research Vol. 19 (3) 365–84

Kalkan, A., Bozkurt, Ö. & Arman, M. (2014). The Impacts of IC., Innovation and Organizational Strategy on Firm Performance. Procedia - Social and Behavioral Sciences. 150. 700-707. 10.1016/j.sbspro.2014.09.025.

Kamardin, H., Abu Bakar, R., & Ishak, R. (2017). IC. Disclosure: The Effect of Family and Non-Executive Directors on Board. Advance Science Letters. 23(4), 3102-3106

Kamath, G.B. (2007), “The IC. Performance of the Indian Banking Sector”, Journal of IC., Vol. 8 No. 1, pp. 96-123, doi: 10.1108/14691930710715088.

Kapelyushnikov, R. (2000). The largest and dominant shareholders in the Russian industry: Evidence of the Russian economic barometer monitoring. Journal of East-West Business, 6(4), 63-88.

Karajeh, A. I., & Ibrahim, M. Y. B. (2017). Impact of audit committee on the association between financial reporting quality and shareholder value. International Journal of Economics and Financial Issues, 7(3), 14-19.

Kaymak, T. & Bektas, E. (2017). Corporate Social Responsibility and Governance: Information Disclosure in Multinational Corporations: CSR, governance, and disclosure in MNCs. Corporate Social Responsibility and Environmental Management. 24. 10.1002/csr.1428.

Kelly, M., & Alam, M. (2008). Management Accounting and the Stakeholder Value Model. Journal of Applied Management Accounting Research. Vol. 6, No.1, pp. 75-86.

Kerlinger, F. N., Lee, H. B., & Bhanthumnavin, D. (2000). Foundations of behavioral research: The most sustainable popular textbook by Kerlinger & Lee (2000). Journal of Social Development Volume, 13(2), 131-144.

Kesner, I. F. (1988). ‘ Directors' characteristics and committee membership: An investigation of type, occupation, tenure, and gender’. Academy of Management Journal, 31, 66– 84.

Khaled, S., Khlif H., & Hussainey, K. (2010). The Impact of Board and Audit Committee Characteristics on Voluntary Disclosure of IC: A Meta-Analysis Journal of International Accounting Auditing and Taxation. Vol 4, No. 1.

Khalique, I., Shaari, S., Isa, A., & Ageel Y. (2011). The Different Proportion of IC. Components and Firms’ Market Performance: Evidence from Taiwan. The International Journal of Business and Finance Research, 4(4), 121-134.

Khan, H., & Ali, M. (2010). An empirical investigation and users’ perceptions on IC. reporting in banks: Evidence from Bangladesh. Journal of Human Resource Costing and Accounting, 14 (1), 48-69.

Kim, K., Mauldin, E., & Patro, S. (2014). Outside directors and board advising and monitoring performance. Journal of accounting and economics, 57(2-3), 110-131.

Kimber, D., & Lipton, P. (2005). Corporate governance and business ethics in the Asia-Pacific region. Business & Society, 44(2), 178-210.

Kish, L. (1959). Statistical design for research. John Wiley & Sons.

Klein, A. (1998). Firm Performance and Board Committee Structure. Journal of Law and Economics, 41, 275-99.

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. Journal of Accounting and Economics, 33(3), 375–400. https://doi.org/10.1016/S0165-4101(02)00059-9

Krambia-Karpadis M. & Psaros J. (2006). The Implementation of Corporate Governance Principles in an Emerging Economy: a Critique of the Situation in Cyprus, Corporate Governance – An International Review.

Kutubi, S. S., Ahmed, K., & Khan, H. (2018). Bank performance and risk-taking - Does directors' busyness matter? Pacific-Basin Finance Journal, 50, 184-199. https://doi.org/10.1016/j.pacfin.2017.02.002

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. The Journal of Finance, 54(2), 471–517. https://doi.org/10.1111/0022-1082.00115

Laidroo, L. (2009). Association between ownership structure and public announcements' disclosures. Corporate Governance: An International Review, 17(1), 13-34.

Laing G., Dunn J., Hughes-Lucas S. (2010). Applying the VAIC model to Australian Fotels, Journal of IC., Vol. 11, No.3, 2010, pp. 269-283

Lakhal, F. (2005). Voluntary earnings disclosures and corporate governance: Evidence from, Indian. Journal of Accounting, Auditing and Performance Evaluation,4 (2), 183-197.

Laksito, H. & Ningsih, M. (2014). The Effect of Characteristics of Audit Committee of Disclosure of IC. Dipononegoro Journal of Accounting 3 (3)

Laksmana, I. (2008). Corporate board governance and voluntary disclosure of executive compensation practices. Contemporary accounting research, 25(4), 1147-1182.

Lawrence, P. R. and Lorsch, J. W. (1967). ‘ Differentiation and integration in complex organizations’. Administrative Science Quarterly, 12, 1– 47.

Leftwich, R. W., Watts, R.L. & Zimmerman J.L. (1981): Voluntary Corporate Disclosure: The Case of Interim Reporting, Journal of Accounting Research, Vol. 19 (3) pp, 50-77

Levitt, A. 2000. Renewing the Covenant with Investors. Speech at New York University Center for Law and Business. http://www.sec.gov/news/speeches/spch370.html

Li a, J., Mangena, M., & Pike, R. (2016). The Effect of Audit Committee Characteristics on IC. Disclosure. The British Accounting Review, DOI: 10.1016/j.bar.2012.03.003.

Li J., Pike R., & Haniffa R. (2018). IC. Disclosure and Corporate Governance Structure in UK Firms. Accounting and Business Research. 38(2): 137-159.

Li, J., Mangena, M., & Pike, R. (2012). The effect of audit committee characteristics on IC. disclosure. British Accounting Review, 44(2), 98–110.

Li, J., Pike, R., & Haniffa, R. (2008). IC. disclosure and corporate governance structure in UK firms. Accounting and business research, 38(2), 137-159.

Li, L., Qi, B., Tian, G., & Zhang, G. (2012). The contagion effect of low-quality audits at the level of individual auditors. The Accounting Review, 92(1), 137-163.

Liao, C. H. and Hsu, A. W. H. (2013). ‘ Common membership and effective corporate governance: Evidence from audit and compensation committees’. Corporate Governance: An International Review, 21, 79– 92.

Lin, J. W., Li, J. F., & Yang, J. S. (2006). The effect of audit committee performance on earnings quality. Managerial Auditing Journal, 21(9), 921–933. https://doi.org/10.1108/02686900610705019

Lin, L.S., Huang, I.C., Du, P.L. and Lin, T.F. (2012), "Human Capital Disclosure and Organizational Performance: The Moderating Effects of Knowledge Intensity and IC. Reporting Organizational Size", Management Decision, Vol. 50 No. 10, pp. 1790-1799, doi: 10.1108/00251741211279602.

Lindblom, C., & Ruland, R. (1997). Functionalist and Conflict Views of AICPA Code of Conflict: Public Interest Vs. Self-Interest Journal of Business Ethics. Vol.16, pp. 575-582

Lindblom, C.K. (1994). The Implications of Organizational Legitimacy for Corporate Social Performance and Disclosure. Paper Presented at the Critical Perspectives on Accounting Conference, New York, NY.

Liu, D., Tseng, K., & Yen, S. (2009). The Incremental Impact of IC. on Value Creation. Journal of IC. Vol. 10, No. 2, pp. 260–276.

Lorsch, J. W., & MacIver, E. (1989). Pawns or Potentates: The Reality of America's Corporate Boards. Boston: Harvard Business School Press.

Lorsch, J.W. and MacIver, E. (1989) Pawns or Potentates: The Reality of America's Corporate Boards. Harvard University Graduate School of Business Administration, Boston.

Machdar, N. M. (2019). The effect of corporate governance on IC. disclosure: An empirical study from Indonesia. Journal of Accounting and Investment, 20(2), 144–158. https://doi.org/10.18196/jai.2002113

Made, N., Wirakusuma, G., & Yuniasih, N. (2014) The Effect of Board Diversity on the Extent of IC. Disclosure Empirical Study in Indonesian Stocks Exchange. Asia Pacific Journal of Accounting and Finance, Vol 3, No 1, pp45-58.

Madhani, P. M. (2007). Role of Voluntary Disclosure and Transparency in Financial Reporting. The Accounting World, 7(6), 63-66.

Madi, H. K., Ishak, Z., & Manaf, N. A. A. (2014). The impact of audit committee characteristics on corporate voluntary disclosure. Procedia-social and behavioral sciences, 164, 486-492.

Madi, Y., Ishak, R., & Abdul Manaf, N. (2014) Impact of Audit Committee Characteristics on Corporate Voluntary Disclosure of IC. Journal of IC. Vol. 10, No. 6, pp. 150–187

Maditinos, D., Chatzoudes, D., Tsairidis, C. and Theriou, G. (2011), "The Impact of IC. on Firms' Market Value and Financial Performance", Journal of IC., Vol. 12 No. 1, pp. 132-151, doi: 10.1108/14691931111097944

Maharaj, R. (2008). Critiquing and contrasting "moral" stakeholder theory and "strategic" stakeholder: implications for the board of directors. Corporate Governance: The international journal of business in society, 8(2), 115-127.

Maji, S. G., & Goswami, M. (2017). IC disclosure practices in India using a comprehensive disclosure framework: A study of knowledge-based companies. Journal of Indian Business Research, 10(4), 345-363.

Maria A., Maria R. M., Bogumił K. & Dominika B. R. (2021). Do institutional investors encourage firm to social disclosure? The stakeholder salience perspective. Journal of business research vol 1 (2) 674 – 682.

Marr, B., Gray, D., & Neely, A. (2003). Why Do Firms Measure Their IC.?. Journal of IC. Vol. 4, No. 4, pp. 441–64.

Marr, S., & Neely, K. (2015). Board Structure and Corporate Performance in Malaysia. International Journal of Economics and Finance, 1(1), 150-164

Martini, S.B., Corvino, A., Doni, F. and Rigolini, A. (2016), "Relational Capital Disclosure, Corporate Reporting and Company Performance: Evidence from Europe", Journal of IC., Vol. 17 No. 2, pp. 186-217, doi: 10.1108/JIC-07-2015-0065.

Masaro, M., Dumay, J., Garlatti, A., & Mas, F. D. (2018). Practitioners' Views on IC. and Sustainability: From a Performance-based to a Worthbased Perspective. Journal of IC. https://doi.org/10.1108/JIC02-2017-0033

Massaro, M., Dumay, J. and Bagnoli, C. (2015), "Where There is a Will There is a Way: IC, Strategic Intent, Diversification and Firm Performance", Journal of IC., Vol. 16 No. 3,pp. 490-517, doi: 10.1108/JIC-07-2014-0091.

McIntyre, M. & Murphy, S. (2007). Board of Director Performance: A Group Dynamics Perspective. Journal of Corporate Governance. Vol 7 (1) pp. 209 – 224.

McKinnon, J. L., & Dalimunthe, L. (1993). Voluntary disclosure of segment information by Australian diversified companies. Accounting & Finance, 33(1), 33-50.

McNall, L., Masuda, A., & Nicklin, J. (2010). Flexible Work Arrangements, Job Satisfaction, and Turnover Intentions: The Mediating Role of Work-to-Family Enrichment. Journal of Psychology. Vol. 144, No. 1, pp. 61–81.

McNulty, S. & Wampler, B. (2011). Does participatory governance matter. Exploring the Nature and Impact of Participatory Reforms

Meiyi, Z. (2012). Board Structure, Ownership Concentration and IC. A Dissertation submitted in Fulfilment of the Requirements of the Degree of Master of Commerce and Administration at Victoria University of Wellington.

Miller, J. G. (2002). Bringing culture to basic psychological theory--beyond individualism and collectivism: comment on Oyserman et al.(2002).

Milliken, J. (1999). The study of discourse in international relations: A critique of research and methods. European journal of international relations, 5(2), 225-254.

Mobus, J. L. (2005). Mandatory Environmental Disclosures in a Legitimacy Theory Context. Accounting, Auditing and Accountability Journal. Vol.18, No.4, pp.492-517.

Moerman, L., & Van der Laan, S. (2005). Social Reporting by the Tobacco Industry: All Smoke and Mirrors?. Accounting, Auditing and Accountability Journal. Vol. 18, No. 3, pp. 374–389.

Mohd-Saleh, N., & Che Abdul Rahman, M. R. (2009). Ownership structure and IC. performance in Malaysia. Asian Academy of Management Journal of Accounting and Finance, 5(1), 1-29.

Montequín, V. R., Fernández, F. O., Cabal, V. A., & Gutierrez, N. R. (2006). An integrated framework for IC. measurement and knowledge management implementation in small and medium-sized enterprises. Journal of information science, 32(6), 525-538.

Morck, R., Shleifer, A., & Vishny, R. W. (1988). Managerial Ownership and Market Valuation: an Empirical Analysis. Journal of Financial Economics. Vol.20, pp.293-315.

Morck, R., Stangeland, D., A. & Yeung, B. (2000). Concentrated corporate ownership, The University of Chicago Press.

Mouritsen, J., Nikolaj Bukh, P., & Marr, B. (2004). Reporting on IC.: why, what and how?. Measuring Business Excellence, 8(1), 46-54.

MSCI (2016), "MSCI Frontier Markets Investable Market Index", available at: www.msci.com/documents/10199/ (accessed 30 July 2021).

Mubarik, S., Naghavi, N., & Mubarik, M. F. (2019). Governance-led IC. disclosure: Empirical evidence from Pakistan. Humanities and Social Sciences Letters, 7(3), 141-155.

Muhammad N. H., Kamran A. & Grant R. (2020). The Effect of Environmental, Social, and Governance Performance Factors on Firms' Cost of Debt: International Evidence. The International Journal of Accounting, 2050014 DOI: 10.1142/S1094406020500146

Mutalib, A., Hafiz M., A., Hairul A., A., & Ibrahim, H. (2018). IC. Efficiency and Corporate Book Value; Evidence from Nigerian Economy. Journal of IC., Vol 19, issue 3, pp 644-668.

Mutalib, A., Hafiz, M., A., & Hairul, A. A. (2016). IC. Disclosure and Corporate Market Value; Does Board Diversity Matter? Journal of Accounting in Emerging Economies. Vol. 7 Issue 3, pp.369-389.

Muttakin, A., Khan, A., & Belal, A. (2015). IC. Disclosures and Corporate Governance: An empirical Examination. Advances in Accounting, Incorporating Advances in International Accounting. 31(2015) 219–227.

Nadeem, M., De Silva, T. A., Gan, C., & Zaman, R. (2016). Boardroom gender diversity and IC. efficiency: evidence from China. Pacific Accounting Review, 29(4), 590-615.

Nagel, S., & Xu, Z. (2015). Asset pricing with fading memory. Journal of Financial Economics, 116(2), 289–306. https://doi.org/10.1016/j.jfineco.2014.12.004

Nahapiet, J. & Ghoshal, S. (1998). Social Capital, IC., and the Organizational Advantage. The Academy of Management Review. 23. 10.2307/259373.

Nair, A., Bhattacharyya, A., & Kuppuswamy, D. (2019). Corporate governance and IC. disclosure: Evidence from India. Journal of IC., 20(5), 694–717. https://doi.org/10.1108/JIC-09-2018-0158

National Bureau of Statistics (2021). Annual Bulletin. Retrieved from https://www.nigerianstats.gov.ng.

Navarro, T. & Francisco, B. (2015). Board of Directors' and Forward-Looking Information Disclosure Strategies. Accounting, Auditing and Accountability Journal. Vol. 18, No 3.

Navarro, T. & Francisco, B. (2016). Board of Directors' Characteristics and IC. Disclosure Strategies. Accounting, Auditing and Accountability Journal. Vol. 18, No 4.

Naveed I. C., M. A. & Iqra A. (2020). Impact of expertise of audit committee chair and nomination committee chair on financial performance of firm. Journal of corporate governance vol. 20 (4) 621-638

Naveed I. C., Muhammad A.R. & Iqra A. (2020). Impact of expertise of audit committee chair and nomination committee chair on financial performance of firm. Journal of Corporate Governance vol. 20 (4) 621-638

Nazari, J. & Herremans, I. (2007) Extended VAIC Model: Measuring IC. Components. Journal of IC., 8, 595-609.

Nazli A. M. G. (2020). Governance and ownership in Malaysia: their impacts on corporate performance. Asian Journal of Accounting Research Vol. 5 (2) 285-298

Nigerian Code of Corporate Governance. (2018). Publication of Financial Reporting Council of Nigeria. https://doi.org/10.1016/j.techfore.23456.45

Neu, D., Warsame, H., & Pedwell, K. (1998). Managing Public Impressions: Environmental Disclosures in Annual Reports. Accounting, Organizations and Society. Vol. 23, No. 3, pp. 265–282.

Nicholson, G. J. and Kiel, G. C. (2004). Corporate Governance: A Framework for Diagnosing Board Effectiveness. 6th International Conference on Corporate Governance and Board Leadership. Vol. 12 (4) pp. 442 – 460

Nicola, R., Ricciardelli, A., Rubino, M., & Vitolla, F. (2020). IC. disclosure in integrated reports: The effect on firm value. Technological Forecasting and Social Change, 160, 120228. https://doi.org/10.1016/j.techfore.2020.120228

Nielsen, C. & Madsen, M. T. (2009). Discourses of Transparency in the IC. Debate: Moving from Generic Reporting Models to Management Defined Information. Critical Perspectives on Accounting. Vol. 20, No. 7, pp. 847–854.

Nielsen, C., Bukh, P. N., Mouritsen, J., Johansen, M. R., & Gormen P. (2006). IC. Statements on Their Way to the Stock Exchange: Analyzing New Reporting Systems. Journal of IC. Vol. 7, No. 2, pp. 221–240.

Nielsen, S. & Huse, M. (2010) The Contribution of Women on Boards of Directors: Going Beyond the Surface, Corporate Governance: An International Review, 2010, 18(2): 136–148.

Nigerian Exchange Group (NGX). Listing requirements. Retrieved from https://ngxgroup.com/exchange/raise-capital/listing-requirements

Ningsih, M. & Laksito, H. (2014). The Effect of Characteristics of Audit Committee of Disclosure of IC. Dipononegoro Journal of Accounting Vol. 3 (3)

Nirino, N., Ferraris, A., Miglietta, N. & Invernizzi, A. (2020). Intellectual capital: the missing link in the corporate social responsibility–financial performance relationship. Journal of IC. ahead-of-print. 10.1108/JIC-02-2020-0038.

Nnadi S. G., (1999) ": The Institute of Chartered Accountants of Nigeria News-Making Audit Committee Effective" Lagos Nigeria: Quarterly journal of The Institute of Chartered Accountants of Nigeria Publication.

Noorul A. B. N., Muhammad J. A. & Kamran A. (2018). Corporate governance, board ethnicity and financial statement fraud: evidence from Malaysia. Accounting Research Journal Vol. 32 (3) 514-531

Nsour, M. A., & Al-Rjoub, S. A. (2022). Corporate governance and firm performance: Evidence from Jordanian listed companies. International Journal of Business Governance and Ethics, 16(2), 123–140. https://doi.org/10.1504/IJBGE.2022.10040345

Ntim, C. G., Lindop, S., & Thomas, D. (2013). Corporate governance and risk reporting in South Africa: A study of corporate risk disclosures in the pre- and post-2007/2008 global financial crisis periods. International Review of Financial Analysis, 30, 363-383.

Nuria R.A & Francisco B. U (2021). The influence of board social capital on corporate social responsibility reporting. Journal of IC. 1469-1930

Nurleni, N., Oktariza, H., & Suryani, E. (2018). Intellectual capital disclosure and corporate governance mechanisms: An empirical study of manufacturing companies listed on the Indonesia Stock Exchange. Journal of Accounting and Investment, 19(2), 152–164. https://doi.org/10.18196/jai.190290

Nuryaman, N. (2015). The Influence of intellectual capital on The Firm's Value with The Financial Performance as Intervening Variable. Procedia - Social and Behavioral Sciences. 211. 292-298. 10.1016/j.sbspro.2015.11.037.

O'Dwyer, B. (2002). Managerial perceptions of corporate social disclosure: An Irish story. Accounting, Auditing and Accountability Journal. Vol.15, No.3, pp.406-436.

O'Regan, P., O'Donnell, D., Kennedy, T., Bontis N. & Cleary, P. (2005). Board Committee, Non-Executive Directors and Governance Cultures in Irish ICT Firms, Corporate Governance: International Journal of Business in Society, 5, 4, 56-63.

Oba, V. C., Ibikunle, J., & Damagum, Y. M. (2013). The impact of board mechanisms on IC. disclosures in Nigeria. Journal of Accounting and Management, 3(1).

Odriozola, M.D. and Baraibar-Diez, E. (2017), "Is Corporate Reputation Associated With Quality of CSR Reporting? Evidence from Spain", Corporate Social Responsibility and Environmental Management, Vol. 24 No. 2, pp. 121-132, doi: 10.1002/csr.1399.

OECD (Organisation for Economic Co-operation and Development) (2006), Principles of Corporate Governance.

Ofo, N. (2019). Corporate governance and disclosure practices in Nigeria: A critique. Nigerian Law Journal, 12(1), 48–67.

Okike, E. N. (2007). Corporate governance in Nigeria: The status quo. Corporate Governance: An International Review, 15(2), 173-193.

Okoye, L. U. (2016). The impact of corporate governance on voluntary disclosure practices in Nigeria. International Journal of Economics and Finance, 8(5), 119–126. https://doi.org/10.5539/ijef.v8n5p119

Oliveira, L., Rodrigues, L.L. & Craig, R. (2006). Firm-specific determinants of intangibles reporting: evidence from the Portuguese stock market, Journal of Human Resource Costing & Accounting, 10 (1), 11-33

Olivers, E., Gowthorpe, C., Kasperskaya, Y., &Perramon, J. (2008). Reporting IC. in Spain. Corporate Communication: An International Journal, 13 (2), 168-181.

Oren M., Subhash A., Dinesh R., & Atchia Z., (2020). New insights into the nexus between board characteristics and IC. disclosure: the case of the emerging economy of Mauritius. Journal of Accounting in Emerging Economies ahead-of-print(ahead-of-print) DOI:10.1108/JAEE-12-2020-0322.

Ortiz-de-Mandojana, N. and Aragon-Correa, J.A. (2015), "Boards and Sustainability: The Contingent Influence of Director Interlocks on Corporate Environmental Performance", Business Strategy and the Environment, Vol. 24 No. 6, pp. 499-517, doi: 10.1002/bse.1833.

O'Sullivan, M. (2000). Corporate Governance and Globalization. The ANNALS of the American Academy of Political and Social Science Journals Vol. 5 (70) pp. 153 – 172. DOI: http://10.1177/000271620057000112.

Owolabi, S. A., & Dada, S. O. (2011). Audit committee: An instrument of effective corporate governance. European Journal of Economics, Finance and Administrative Sciences, 35(35), 174-183.

Oyedokun, G. E., Umoh, R. O., Haruna, A. R., & Zakari, A. Z. (2019). Effect of Ownership structure on earnings management of listed industrial goods companies in Nigeria. IOSR Journal of Business and Management (IOSR-JBM), 21(1). Ser. III

Oziegbe, D. J., & Ofe, I. (2020). Audit Committee Attributes And IC. Disclosure Of Listed Banks In Nigeria. International Journal of Accounting & Finance (IJAF), 9(1).

Paoyu, H. Yensen, N. & Yi-Rung, C. (2019). Do IC.s Matter to Firm Value Enhancement? Evidences from Taiwan. Journal of IC. Vol. 22 (4) pp. 725 – 743. https://doi.org/10.1108/JIC-10-2019-0235

Patton, A. & Baker, J. (1987). Why do not directors rock the boat? Harvard Business Review, 65, 10-12.

Pehazur, A. & Schmelkin B. (1991). The selection, use, and reporting of control variables in international business research: A review and recommendations. Journal of World Business, 53(6), 958-968.

Perez-Calero, L., Villegas, M. & Barroso, C. (2016). A framework for board capital. Corporate Governance: The international journal of business in society. 16. 452-475. 10.1108/CG-10-2015-0146.

Petra, S. T. (2005). Do outside independent directors strengthen corporate boards?. Corporate Governance: The international journal of business in society, 5(1), 55-64.

Petty, R., & Guthrie, J. (2000), 'IC. Literature Review: Measurement, Reporting and Management. Journal of IC. Vol. 1, No. 2, pp. 155–176.

Petty, R., Ricceri, F., & Guthrie, J. (2008). IC.: A User's Perspective. Management Research News. Vol. 31, No. 6, pp. 434–447.

Pfeffer, J., & Salancik, G. R. (1978). The external control. New York.

Piekkari, R., Oxelheim, L., & Randøy, T. (2015). The silent board: How language diversity may influence the work processes of corporate boards. Corporate governance: An international review, 23(1), 25-41.

Pisano, S., Lepore, L., & Lamboglia, R. (2016). Corporate disclosure on IC.: Evidence from Italian listed companies. Journal of IC., 17(3), 411–429. https://doi.org/10.1108/JIC-10-2015-0097

Pisano, S., Lepore, L., & Lamboglia, R. (2017). Corporate disclosure of human capital via LinkedIn and ownership structure: An empirical analysis of European companies. Journal of IC., 18(1), 102-127.

PLAC. (2020). Companies and Allied Matters Act (CAMA). Retrieved from https://www.placng.org/lawsofnigeria/laws/C20.pdf.

Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. The journal of finance, 54(2), 471-517.

Preston, A. M., & Young, J. J. (2000). Construction the Global Corporation and Corporate Construction of Global: A Picture Essay. Accounting Organizations and Society. Vol.25, No. 4-5, pp. 427-449.

Pugliese, A., Nicholson, G., & Bezemer, P. J. (2015). An observational analysis of the impact of board dynamics and directors' participation on perceived board effectiveness. British Journal of Management, 26(1), 1-25.

Puni, A. (2015). Do board committees affect corporate financial performance? Evidence from listed companies in Ghana. International Journal of Business and Management Review, 3(5), 14-25.

Raghunandan, K., & Rama, D. V. (2007). Determinants of Audit Committee Diligence. Accounting Horizons, 21, 265-279.

Raimo, N., Vitolla, F., Marrone, A., & Rubino, M. (2022). The role of ownership structure in integrated reporting policies. Corporate Governance: The International Journal of Business in Society, 22(1), 1–17. https://doi.org/10.1108/CG-06-2020-0256

Ramon-Llorens, M.C., Garcıa-Meca, E. and Pucheta-Martınez, M.C. (2019), "The Role of Human and Social Board Capital in Driving CSR Reporting", Long Range Planning, Vol. 52 No. 6, 101846, doi: 10.1016/j.lrp.2018.08.001

Ranjith A. & Mohammed B. (2015). Examining the influence of corporate governance on IC. efficiency Evidence from top service firms in Australia. Managerial Auditing Journal Vol. 30 (4/5), 347-372

Ratnatunga, J. (2012). The Valuation of Capabilities: A New Direction From Management Accounting Research. Journal of Applied Management Accounting Research. Vol. 1, No. 1, pp. 1–15.

Ratnatunga, J., & Alam, M. (2011). Strategic Governance and Management Accounting: Evidence from a Case Study. Abacus. Vol.47, No.3, pp.343-382.

Ratnatunga, J., & Ewing, M. (2005). The Real Estate Capability Value of Integrated Marketing Communication. Journal of Advertising. Vol. 34, No. 4, pp. 25–40.

Ratnatunga, J., & Jones, S. (2012). A Methodology to Rank the Quality and Comprehensiveness of Sustainability Information Provided in Publicly Quoted Company Reports. Contemporary Issues in Sustainability Accounting, Assurance and Reporting, Emerald Group Publishing, Bradford. pp. 227–266.

Ratnatunga, J., Gray, N., & Balachandran, K. R. (2004). The Valuation and Reporting of Strategic Capabilities. Management Accounting Research. Vol. 15, pp. 77–105.

Rehman, A., Hashim, F., & Hassan, M. S. (2020). IC. disclosure and its impact on financial performance: Empirical evidence from Islamic banks in GCC countries. Journal of Islamic Accounting and Business Research, 11(5), 1003–1016. https://doi.org/10.1108/JIABR-05-2017-0066

Roberts, J. (2012). Agency theory, ethics and corporate governance. In T. Clarke & D. Branson (Eds.), The SAGE handbook of corporate governance (pp. 39–60). SAGE Publications Ltd. https://doi.org/10.4135/9781446200995.n3

Rodrigues, L. L., & Craig, R. (2017). Corporate governance effects on social responsibility disclosures. Australasian Accounting, Business and Finance Journal, 11(2), 3–22. https://doi.org/10.14453/aabfj.v11i2.2

Roslender, R., & Fincham, R. (2001). Thinking Critically About IC. Accounting. Accounting Auditing and Accountability Journal. Vol. 14, No. 4, pp. 311–329.

Roslender, R., & Fincham, R. (2004). IC. Accounting in the UK, a Field Study Perspective. Accounting, Auditing and Accountability Journal. Vol. 17.No. 2, pp. 178–209.

Ross, S. A. (1973). The economic theory of agency: The principal's problem. The American Economic Review, 63(2), 134–139.

Rouf, M. (2011). The Corporate Social Responsibility Disclosure: A Study of Listed Companies in Bangladesh. Business and Economics Research Journal, 2, 19-32.

RSIS International. (2022). Corporate scandal and business ethics: The role of professional accountants in Nigeria. International Journal of Research and Innovation in Social Science, 6(5), 45-52. Retrieved from https://rsisinternational.org/journals/ijriss/articles/corporate-scandal-and-business-ethics-the-role-of-professional-accountants-in-nigeria

Rupjyoti S., & Kailash C. K. (2020). Corporate governance and voluntary disclosure: evidence from India. Journal of Financial Reporting and Accounting Vol. 20 (1) 127-160

Rupley, K. H., Brown, D., & Marshall, R. S. (2012). Governance, media and the quality of environmental disclosure. Journal of Accounting and Public Policy, 31(6), 610–640. https://doi.org/10.1016/j.jaccpubpol.2012.09.002

Saat, N. A. M. (2008). Influence of board of directors' and board's subcommittees atrributes on performance: An empirical evaluation of companies listed in KLSE. Cardiff University (United Kingdom).

Sadiq R, Safia N. & Waseem A. (2020). The influence of governance on IC. in textile industry. International Journal of Business and Society, Vol. 21 No. 1, 2020, 1-24

Salman, R. T. (2023). IC. disclosure of Nigerian companies: An empirical analysis. Jurnal Administrasi Bisnis, 12(1), 1-9.

Sánchez, I. M. G., Dominguez, L. R., & Alvarez, I. G. (2011). Corporate governance and strategic information on the internet: A study of Spanish listed companies. Accounting, Auditing & Accountability Journal, 24(4), 471-501.

Scafarto, V., Ricci, F., & Scafarto, F. (2020). Board structure and IC. efficiency: Does the family firm status matter? Journal of Management & Governance, 25(3), 693–725. https://doi.org/10.1007/s10997-020-09533-x

Schadewitz, H. J., & Blevins, D. R. (1998). Major determinants of interim disclosures in an emerging market. American Business Review, 16(1), 41-55.

Schmalensee, R. (1985). Do markets differ much?. The American economic review, 75(3), 341-351.

Schmalz, M. C. (2021). Recent studies on common ownership, firm behavior, and market outcomes. The Antitrust Bulletin, 66(1), 12-38.

Schmidt, J., & Wilkins, M. S. (2013). Bringing darkness to light: The influence of auditor quality and audit committee expertise on the timeliness of financial statement restatement disclosures. Auditing: A Journal of Practice & Theory, 32(1), 221-244.

Schwizer, P., Casiraghi, R., & Stefanelli, V. (2011). Boards at work: why and how induction and training could enhance directors' effectiveness in the boardroom. International Journal of Regulation and Governance, 11(2), 1-19.

Sekaran, Uma. (2010). Research Methods for Business. Hoboken.

Shahab, Y., & Ye, C. (2018). Corporate social responsibility disclosure and corporate governance: Empirical insights on neo-institutional framework from China. Business Strategy and the Environment, 27(8), 1138–1158. https://doi.org/10.1002/bse.2229

Sharma, V., Naiker, V., & Lee, B. (2009). Determinants of Audit Committee Meeting Frequency: Evidence from a Voluntary Governance System. Accounting Horizons, 23, 245-263.

Shin, H., & Kim, S. (2018). The Effect of Corporate Governance on Earnings Quality and Market Reaction to Low Quality Earnings: Korean Evidence. Sustainability, 11, 102

Shivdasani, A., & Yermack, D. (1999). CEO involvement in the selection of new board members: An empirical analysis. The journal of finance, 54(5), 1829-1853.

Simoni, M. and Caiazza, R. (2013), "Interlocking Directorates' Effects on Economic System's Competitiveness", Business Strategy Series, Vol. 14 No. 1, pp. 30-35, doi: 10.1108/ 17515631311295695.

Singh, D. A. & Gaur, A. S. (2009). Business Group Affiliation, Firm Governance and Firm Performance: Evidence from China and India. Corporate Governance: An International Review, 17 (4), 411-425

Smriti, N., & Das, N. (2020). Do female directors drive IC. performance? Evidence from Indian listed firms. Journal of IC., 23(5), 1052-1080.

Spence, M. (1973). Job Market Signalling. Quarterly Journal of Economics. Vol. 83, No. 3, pp. 355–374.

Spence, M. (2002). Job Market Signaling. The Quarterly Journal of Economics, 87(3), 355–374.

Spence, M. (2002). Signalling in Retrospect and Informational Structure of Markets. American Economic Review. Vol. 92, pp. 434–459.

Srinidhi, B. & Gul, F. & Judy, T. (2011). Female Directors and Earnings Quality. Contemporary Accounting Research. 28. 1610 - 1644. 10.1111/j.1911-3846.2011.01071

Statistics, (2021). National Bureau of Statistics.

Steckler, E., & Clark, C. (2019). Authenticity and corporate governance. Journal of Business Ethics, 155, 951-963.

Stephani, T. & Yuyetta, E. N. (2012). Analysis of Factors Affecting IC. Disclosure. Indonesian Journal of Accounting and Auditing Vol. 7 (2).

Steven L.S., Thomas G., Mona C., & Pill J., (2006). A guide to Forensic Accounting Investigation. Published by John Wiley & Sons, Inc., Hoboken, New Jersey.

Steven, F. & Mitchell, W. S. (2015). Firm Ownership Structure and IC. Disclosures. Academy of Management Best Paper Proceedings, pp. 336-340.

Stiglitz, J. E. (1985). Information and Economic Analysis: A Perspective. Economic Journal. Vol. 95, pp. 21–41.

Stone-Romero, E. F., Alvarez, K., & Thompson, L. F. (2009). The construct validity of conceptual and operational definitions of contextual performance and related constructs. Human Resource Management Review, 19(2), 104-116.

Subramaniam, N., McManus, L., & Zhang, J. (2009). Corporate governance, firm characteristics, and risk management committee formation in Australian companies. Managerial Auditing Journal, 24(4), 316–339. https://doi.org/10.1108/02686900910948170

Suchman, M. C. (1995). Managing Legitimacy: Strategic and Institutional Approaches. Academy of Management Review. Vol..20, No.3, pp.571-610.

Sukumaran, A., Gupta, R. and Jithendranathan, T. (2015), "Looking at New Markets for International Diversification: Frontier Markets", International Journal of Managerial Finance, Vol. 11 No. 1,pp. 97-116, doi: 10.1108/IJMF-05-2013-0057.

Sumaira A. Elisabete G. S. F. & Zélia S. (2021). Does board committee independence affect financial distress likelihood? A comparison of China with the UK. Asia Pacific Journal of Management https://doi.org/10.1007/s10490-020-09747-5

Sun, W., Li, X., Geng, Y., Yang, J. and Zhang, Y. (2020), "Board Interlocks and the Diffusion of CSR Reporting Practices: the Role of Market Development", Corporate Social Responsibility and Environmental Management, Vol. 27 No. 3, pp. 1333-1343, doi: 10.1002/csr.1887.

Sveiby, K. (1998) Measuring Intangibles and IC.: An Emerging First Standard.

http://www.sveiby.com.au/EmergingStandard.html

Sveiby, K. E. (2010), Methods For Measuring Intangible Assets Available at: http://www.sveiby.com/articles/IntangibleMethods.htm (accessed 27 August 2021).

Sveiby, K.E. (1997) The New Organizational Wealth, Managing, and Measuring Knowledge-Based Asset. San Francisco. Berrett-Koehler Publishers, Inc.

Swamy, M. (2004). Does Non-Inclusion of Intangible Asset Values Lead to Distortion of Financial Statements and Mislead Judicious Financial Decision Making? Focus on Environmental Accounting and Estimation of Knowledge Capital Values. Journal of Financial Management and Analysis. 17(1), 77-91.

Sydler, R., Haefliger, S., & Pruksa, R. (2013). Measuring IC. with Financial Figures: Can We Predict Firm Profitability? European Management Journal. Vol II, No 2.

Szczepańska, K. (2011). Quality management. In the pursuit of perfection, CH Beck, Warsaw, (s 15), 16.

Tallman, S., & Li, J. (1996). Effects of International Diversity and Product Diversity on the Performance of Multinational Firms. Academy of Management Journal, 39(1), 179-196.

Tamer M. S., & Mohamed M. F., (2020). The mediating role of IC. in corporate governance and the corporate performance relationship. Available at https://www.emerald.com/insight/2514-9369.htm.

Tankiso, S. M. (2008). Assessment of corporate governance reporting in the annual reports of South African listed companies. Masters of Science Thesis.

Tanyi, P. N., & Smith, D. B. (2015). Busyness, expertise, and financial reporting quality of audit committee chairs and financial experts. Auditing: A Journal of Practice & Theory, 34(2), 59–89. https://doi.org/10.2308/ajpt-50929

Tao, N. B., & Hutchinson, M. (2013). Corporate governance and risk management: The role of risk management and compensation committees. Journal of Contemporary Accounting & Economics, 9(1), 83-99.

Ting, I.W. and Lean, H.H. (2009), "IC. Performance of Financial Institutions in Malaysia", Journal of IC., Vol. 10 No. 4, pp. 588-599, doi: 10.1108/14691930910996661.

Toh, M. Y. (2013). Measuring the relationship between audit committee characteristics and earnings management: evidence from New Zealand listed companies (Doctoral dissertation, Lincoln University).

Tomasic, R. (2001). Corporate collapse, crime and governance-Enron, Andersen and beyond. Australian journal of corporate law, 14, 183.

Tovstiga, G. and Tulugurova, E. (2007), "IC. Practices and Performance in Russian Enterprises", Journal of IC., Vol. 8 No. 4, pp. 695-707, doi: 10.1108/14691930710830846.

Trinh, V.Q., Elnahass M. & Cao, N.D. (2021). The value relevance of bank cash Holdings: The moderating effect of board busyness. Journal of International Financial Markets, Institutions and Money 73 (1).

Unerman, J., & O'Dwyer, B. (2007, December). The business case for regulation of corporate social responsibility and accountability. In Accounting Forum (Vol. 31, No. 4, pp. 332-353). No longer published by Elsevier.

Ute V., & Robert R., (2019). Effects of voluntary IC. disclosure for disclosing firms: A structured literature review. Journal of Applied Accounting Research, 2019, vol. 20, issue 3, 349-364.

Uwuigbe, U., Daramola, J. A., & Anjolaoluwa, A. (2021). Impact of the 2018 Nigerian Code of Corporate Governance on financial and IC. reporting. African Journal of Corporate Governance, 3(2), 90–105.

Uwuigbe, U., Daramola, S.P. & Anjolaoluwa, O. (2021). The effects of corporate governance mechanisms on earnings management of listed firms in Nigeria. Accounting and Management Information Systems, 13(1), 159-174.

Vafeas, N. (1999). ' Board meeting frequency and firm performance'. Journal of Financial Economics, 53, 113– 42.

Vafeas, N. (1999). The nature of board nominating committees and their role in corporate governance. Journal of Business Finance & Accounting, 26(1-2), 199-225.

Van der Walt, N. & Ingley, C. (2003) Board Dynamics and the Influence of Professional Background, Gender and Ethnic Diversity of Directors. Corporate Governance: An International Review, 11, 218-234.

Van Ees, H., Gabrielsson, J., & Huse, M. (2009). Toward a behavioral theory of boards and corporate governance. Corporate governance: An international review, 17(3), 307-319.

Van Woerkom, M., & Sanders, K. (2010). The romance of learning from disagreement. The effect of cohesiveness and disagreement on knowledge sharing behavior and individual performance within teams. Journal of business and psychology, 25, 139-149.

Vandemaele, S. N., Vergauwen, P. G. M. C., & Smits, A. J. (2005). IC. disclosure in The Netherlands, Sweden and the UK: A longitudinal and comparative study. Journal of IC., 6(3), 417-426.

Vandemaele, S. N., Vergauwen, P. G. M. C., & Smits, A. J. (2005). IC. disclosure in The Netherlands, Sweden and the UK: A longitudinal and comparative study. Journal of IC., 6(3), 417-426.

Veltri, S. & Mazzotta, R. (2016). "The Association of Board Committee, IC. and Firm Performance in a High Ownership Concentration Context: Evidence from Italy," International Journal of Business and Management, Canadian Center of Science and Education, vol. 11(10), pages 317-317.

Veltri, S., & Mazzotta, R. (2016). The Association of Board Committee, IC. Disclosure and Firm Performance in a High Ownership Concentration Context: Evidence from Italy. International Journal of Business and Management; Vol. 11, No. 10; 2016 ISSN 1833-3850.

Vergauwen, P., Bollen, L., & Oirbans, E. (2007). IC. Disclosure and Intangible Value Drivers: An Empirical Study. Management Decision, Vol. 45, No.7, pp.1163–1180.

Verrecchia, R. (2001) Discretionary Disclosure. Journal of Accounting & Economics, 5, 179-194. http://dx.doi.org/10.1016/0165-4101(83)90011-3

Vicknair, D., Hickman, K., & Carnes, K. C. (1993). A note on audit committee independence: Evidence from the NYSE on" grey" area directors. Accounting Horizons, 7(1), 53.

Vu Quang T, Marwa E. & Ngan D. C. (2021). The influence of board social capital on corporate social responsibility reporting. Journal of International Financial Markets, Institutions & Money

Wang, M., & Hussainey, K. (2013). Voluntary forward-looking statements driven by corporate governance and their value relevance. Journal of Accounting and Public Policy, 32(3), 26-49.

Wang, W.Y. and Chang, C. (2005), "IC. and Performance in Causal Models: Evidence from the Information Technology Industry in Taiwan", Journal of IC., Vol. 6 No. 2, pp. 222-236, doi: 10.1108/14691930510592816.

Wasiuli, S., Rehman, V., & Zahid, A. (2011). IC. Performance and Its Impact on Corporate Performance. An Empirical Evidence from Modoraba Sector of Pallestine. Journal of Financial Management and Analysis, Vol 17, No. 17, pp. 77-91.

Welker, M. (1995). Disclosure Policy, Information Asymmetry and Liquidity in Equity Markets. Contemporary Accounting Research. Vol. 11, pp. 801–828.

Westphal J. (2001). The Strategic Context of External Network Ties: Examining the Impact of Director Appointments on Board Involvement in Strategic Decision Making. Academy of Management Journal 44 639–660

Williams, S. M. (2001). Is IC. Performance and Disclosure Practices Related? Journal of IC. Vol. 2 No. 3, pp. 192 203. https://doi.org/10.1108/14691930110399932

Wintoki, M. B. (2007). Corporate boards and regulation: The effect of the Sarbanes-Oxley Act and the exchange listing requirements on firm value. Journal of Corporate Finance, 13(2-3), 229–250. https://doi.org/10.1016/j.jcorpfin.2007.03.001

Wooldridge, J. M. (2002). Econometric analysis of cross section and panel data. MIT Press. https://mitpress.mit.edu/9780262232197/econometric-analysis-of-cross-section-and-panel-data/

Xie, B., W. N. Davidson III, & P. J. Dadalt. (2003). Earnings management and corporate governance: the role of the board and the audit committee. Journal of Corporate Finance, 9(3), 295-316.

Yahaya, O. A. (2019). IC. and financial performance of listed oil and gas firms in Nigeria. Enugu State University of Technology Journal of Management Sciences, 10. 89-107.

Yahaya, O. A., & Apoch M.N. (2022). IC. management and financial competitiveness of listed oil and gas firms in Nigeria. Enugu State University of Technology Journal of Management Sciences, 12, 86-96.

Yahaya, O. A., & Tijani, B. (2020). Internal corporate governance and intellectual capital of listed oil and gas firms in Nigeria. European Journal of Accounting, Auditing and Finance Research, 8(9), 98-112.

Yakasai, A. G. (2001). Corporate governance in a third world country with particular reference to Nigeria. Corporate Governance: An International Review, 9(3), 238-253.

Yan, X. (2016). Intellectual capital disclosure and corporate governance structure in UK firms. Journal of Financial Reporting and Accounting, 14(1), 70–95. https://doi.org/10.1108/JFRA-09-2014-0074

Yermack, D. (1996). Higher market valuation of companies with a small board of directors. Journal of Financial Economics, 40(2), 185–211. https://doi.org/10.1016/0304-405X(95)00844-5

Yermack, D. (2016) Corporate Governance and Blockchains, Review of Finance, Volume 21, Issue 1, March 2017, Pages 7–31, https://doi.org/10.1093/rof/rfw074

Yoshikawa, T., Zhu, H., & Wang, P. (2014). National governance system, corporate ownership, and roles of outside directors: A corporate governance bundle perspective. Corporate Governance: An International Review, 22(3), 252-265.

Zhang, M. (2012) Board Structure, Ownership Concentration and intellectual capital Disclosure. A Dissertation Submitted in Fulfilment of the Requirements of the Degree of Master of Commerce and Administration at Victoria University of Wellington.

Zhang, M., Yusuf K. (2014) Board size, Ownership Concentration and intellectual capital Disclosure. Asia Pacific Journal of Accounting and Finance. Volume 3, No. 1, pp. 243-256.

Zhu, D. H., Shen, W. and Hillman, A. J. (2014). ' Recategorization into the in-group: The appointment of demographically different new directors and their subsequent positions on corporate boards'. Administrative Science Quarterly, 59, 240–70.

Zhu, D.H., Shen, W. and Hillman, A.J. (2014), "Recategorization Into the In-group: The Appointment of Demographically Different New Directors and Their Subsequent Positions on Corporate Boards", Administrative Science Quarterly, Vol. 59 No. 2, pp. 240-270, doi: 10.1177/0001839214530951.

Zhu, J., Tian, G., & Ma, S. (2009). CEO pay-performance and board independence: The impact of earnings management in China. Asia-Pacific Journal of Accounting & Economics, 16(1), 29–47. https://doi.org/10.1080/16081625.2009.9720839

Zou, R., Su, X., Wang, H., & Wang, Y. (2019). IC. and technological dynamic capability: evidence from Chinese enterprises. Journal of IC., 20(4), 453-471.

APPENDIX A: SAMPLE SELECTION TABLE

Table 3.5 Sample Size

S/N	COMPANY NAMES	SECTOR	ID	YEARS COVERED
1	ELLAH LAKES PLCELLAH LAKES PLC	AGC	1	2012-2021
2	FTN COCOA PROCESSORS PLC	AGC	2	2012-2021
3	LIVESTOCK FEEDS PLC	AGC	3	2012-2021
4	OKOMU OIL PALM PLC	AGC	4	2012-2021
5	PRESCO PLC	AGC	5	2012-2021
6	CHELLARAMS PLC	CONG	6	2012-2021
7	JOHN HOLT PLC	CONG	7	2012-2021
8	S C O A NIG. PLC.	CONG	8	2012-2021
9	TRANSNATIONAL CORPOARTION OF NIGERIA PLC	CONG	9	2012-2021
10	U A C N PLC	CONG	10	2012-2021
11	ARBICO PLC	CONST	11	2012-2021
12	JULIUS BERGER NIG. PLC	CONST	12	2012-2021
13	SFS REAL ESTATE INVESTMENT TRUST	CONST	13	2012-2021
14	SMART PRODUCTS NIGERIA PLC	CONST	14	2012-2021
15	UACN PROPERTY DEVELOPMENT COMPANY PLC	CONST	15	2012-2021
16	UNION HOMES REAL ESTATE INVESTMENT TRUST (REIT) Trust	CONST	16	2012-2021
17	CADBURY NIGERIA PLC.	CONSG	17	2012-2021
18	CHAMPION BREW. PLC.	CONSG	18	2012-2021
19	DANGOTE SUGAR REFINERY PLC	CONSG	19	2012-2021
20	FLOUR MILLS NIG. PLC.	CONSG	20	2012-2021
21	GUINNESS NIG PLC	CONSG	21	2012-2021
22	HONEYWELL FLOUR MILL PLC	CONSG	22	2012-2021
23	INTERNATIONAL BREWERIES PLC.	CONSG	23	2012-2021
24	MCNICHOLS PLC	CONSG	24	2012-2021
25	N NIG. FLOUR MILLS PLC.	CONSG	25	2012-2021
26	NASCON ALLIED INDUSTRIES PLC	CONSG	26	2012-2021
27	NESTLE NIGERIA PLC.	CONSG	27	2012-2021
28	NIGERIAN BREW. PLC.	CONSG	28	2012-2021
29	NIGERIAN ENAMELWARE PLC.	CONSG	29	2012-2021
30	P Z CUSSONS NIGERIA PLC.	CONSG	30	2012-2021
31	UNILEVER NIGERIA PLC.	CONSG	31	2012-2021
32	VITAFOAM NIG PLC.	CONSG	32	2012-2021
33	Abbey Mortgage Bank Plc	FIN	33	2012-2021
34	Access	FIN	34	2012-2021
35	Eco	FIN	35	2012-2021
36	FCMB	FIN	36	2012-2021

37	Fidelity	FIN	37	2012-2021
38	Firstbank	FIN	38	2012-2021
39	GT bank	FIN	39	2012-2021
40	Infinity Trust Mortgage Bank Plc	FIN	40	2012-2021
41	Jaiz Bank Plc	FIN	41	2012-2021
42	Stanbic Bank	FIN	42	2012-2021
43	Staerling Bank	FIN	43	2012-2021
44	UBA	FIN	44	2012-2021
45	Union Bank	FIN	45	2012-2021
46	Unity Bank	FIN	46	2012-2021
47	Wema Bank	FIN	47	2012-2021
48	Zenith Bank	FIN	48	2012-2021
49	AIICO	FIN	49	2012-2021
50	African Alliance	FIN	50	2012-2021
51	Continental	FIN	51	2012-2021
52	Connerstone	FIN	52	2012-2021
53	Custodian	FIN	53	2012-2021
54	Coronation Insurance Plc	FIN	54	2012-2021
55	Consolidated	FIN	55	2012-2021
56	International Energy Insurance Company Plc	FIN	56	2012-2021
57	Mansard	FIN	57	2012-2021
58	Standard	FIN	58	2012-2021
59	Lasaco	FIN	59	2012-2021
60	Linkage	FIN	60	2012-2021
61	Mutual	FIN	61	2012-2021
62	Nem	FIN	62	2012-2021
63	Niger	FIN	63	2012-2021
64	Royal	FIN	64	2012-2021
65	Veritas Kapital Assurance Plc	FIN	65	2012-2021
66	FIDSON HEALTHCARE PLC	HEAT	66	2012-2021
67	GLAXO SMITHKLINE CONSUMER NIG. PLC.	HEAT	67	2012-2021
68	MAY & BAKER NIGERIA PLC.	HEAT	68	2012-2021
69	MORISON INDUSTRIES PLC.	HEAT	69	2012-2021
70	NEIMETH INTERNATIONAL PHARMACEUTICALS PLC	HEAT	70	2012-2021
71	PHARMA-DEKO PLC	HEAT	71	2012-2021
72	CHAMS PLC	ICT	72	2012-2021
73	COURTEVILLE BUSINESS SOLUTIONS PLC	ICT	73	2012-2021
74	CWG PLC	ICT	74	2012-2021
75	E-TRANZACT INTERNATIONAL PLC	ICT	75	2012-2021
76	NCR (NIGERIA) PLC.	ICT	76	2012-2021
77	OMATEK VENTURES PLC	ICT	77	2012-2021
78	TRIPPLE GEE AND COMPANY PLC.	ICT	78	2012-2021
79	AUSTIN LAZ & COMPANY PLC	INDG	79	2012-2021
80	BERGER PAINTS PLC	INDG	80	2012-2021

81	BETA GLASS PLC.	INDG	81	2012-2021
82	BUA CEMENT PLC	INDG	82	2012-2021
83	CAP PLC	INDG	83	2012-2021
84	DANGOTE CEMENT PLC	INDG	84	2012-2021
85	GREIF NIGERIA PLC	INDG	85	2012-2021
86	LAFARGE AFRICA PLC.	INDG	86	2012-2021
87	MEYER PLC.	INDG	87	2012-2021
88	PORTLAND PAINTS & PRODUCTS NIGERIA PLC	INDG	88	2012-2021
89	PREMIER PAINTS PLC	INDG	89	2012-2021
90	ALIMINIUM EXTRUSION IND. PLC	NATR	90	2012-2021
91	B.O.C GASES PLC	NATR	91	2012-2021
92	MULTIVERSE MINING AND EXPLORATION PLC	NATR	92	2012-2021
93	THOMAS WYATT NIG. PLC	NATR	93	2012-2021
94	Ardova Plc	O&G	94	2012-2021
95	ELEVEN PLC	O&G	95	2012-2021
96	ANINO INTERNATIONAL PLC.[MRS]	O&G	96	2012-2021
97	CAPITAL OIL PLC	O&G	97	2012-2021
98	CONOIL PLC	O&G	98	2012-2021
99	ETERNA PLC	O&G	99	2012-2021
100	FORTE OIL	O&G	100	2012-2021
101	JAPAUL OIL & MARITIME SERVICES PLC	O&G	101	2012-2021
102	MRS OIL NIGERIA PLC.	O&G	102	2012-2021
103	OANDO PLC	O&G	103	2012-2021
104	RAK UNITY PET. COMP. PLC.	O&G	104	2012-2021
105	SEPLAT PETROLEUM	O&G	105	2012-2021
106	TOTAL NIGERIA PLC.	O&G	106	2012-2021
107	ACADEMY PRESS PLC	SERV	107	2012-2021
108	AFROMEDIA PLC	SERV	108	2012-2021
109	ASSOCIATED BUS COMPANY PLC	SERV	109	2012-2021
110	C & I LEASING PLC	SERV	110	2012-2021
111	CAPITAL HOTEL PLC	SERV	111	2012-2021
112	CAVERTON OFFSHORE SUPPORT GRP PLC	SERV	112	2012-2021
113	DAAR COMMUNICATIONS PLC	SERV	113	2012-2021
114	IKEJA HOTEL PLC	SERV	114	2012-2021
115	INTERLINKED TECHNOLOGIES PLC	SERV	115	2012-2021
116	LEARN AFRICA PLC	SERV	116	2012-2021
117	NIGERIAN AVIATION HANDLING COMPANY PLC	SERV	117	2012-2021
118	R T BRISCOE PLC	SERV	118	2012-2021
119	RED STAR EXPRESS PLC	SERV	119	2012-2021
120	SECURE ELECTRONIC TECHNOLOGY PLC	SERV	120	2012-2021
121	STUDIO PRESS NIG. PLC	SERV	121	2012-2021
122	TANTALIZERS PLC	SERV	122	2012-2021
123	TOURIST COMPANY OF NIGERIA PLC	SERV	123	2012-2021
124	TRANS-NATIONWIDE EXPRESS PLC	SERV	124	2012-2021
125	TRANSCORP HOTELS PLC	SERV	125	2012-2021

APPENDIX "B"

DATA PRESENTATION

VARIABLES	**SCORE**	**FREQ**
ICD	0	0
	1-5	1163
	6-10	0
	11-15	0
	16-20	0
	21-25	0
BOARD STRUCTURE	0	0
	1-5	1152
	6-10	0
	11-15	0
	16-20	0
	21-25	0
BOARD PROCEDURE	0	0
	1-5	172
	6-10	1088
	11-15	0
	16-20	0
	21-25	0
BOARD COMMITTEE	0	0
	1-5	0
	6-10	36
	11-15	1224
	16-20	0
	21-25	0
OWNERSHIP STRUCTURE	0	0
	1-5	1231
	6-10	29
	11-15	0
	16-20	0
	21-25	0
DISCLOSURE PRACTICE	0	0
	1-5	0
	6-10	0
	11-15	0
	16-20	100
	21-25	1160
FIRM SIZE	0	0
	1-5	2

	6-10	741
	11-15	183
	16-20	0
	21-25	0
BOARD SIZE	0	0
	1-5	1260
	6-10	0
	11-15	0
	16-20	0
	21-25	0
LEVERAGE	0	1220
	1-5	39
	6-10	1
	11-15	0
	16-20	0
	21-25	0
RETURN ON ASSETS	0	1158
	1-5	0
	6-10	1
	11-15	1
	16-20	0
	21-25	0
INDUSTRY TYPE	0	719
	1-5	541
	6-10	0
	11-15	0
	16-20	0
	21-25	0
AUDIT COMMITTEE SIZE	0	21
	1-5	357
	6-10	882
	11-15	0
	16-20	0
	21-25	0
RISK COMMITTEE	0	534
	1-5	726
	6-10	0
	11-15	0
	16-20	0
	21-25	0

APPENDIX C: ANALYSIS AND RESULTS

-> YEAR = 2012

Variable	Obs	Mean	Std. Dev.	Min	Max
HCScore	126	1	0	1	1
SCScore	126	1.81746	.5713254	0	2
CCScore	126	2.65873	.9479468	0	3
ICD	126	1.825397	.4059869	.3333333	2

-> YEAR = 2013

Variable	Obs	Mean	Std. Dev.	Min	Max
HCScore	126	1	0	1	1
SCScore	126	1.801587	.5935634	0	2
CCScore	125	2.68	.9210793	0	3
ICD	126	1.820106	.4271888	.3333333	2

-> YEAR = 2014

Variable	Obs	Mean	Std. Dev.	Min	Max
HCScore	126	1	0	1	1
SCScore	126	1.785714	.6145846	0	2
CCScore	126	2.65873	.9479468	0	3
ICD	126	1.814815	.4228066	.3333333	2

-> YEAR = 2015

Variable	Obs	Mean	Std. Dev.	Min	Max
HCScore	126	1	0	1	1
SCScore	126	1.769841	.6345102	0	2
CCScore	126	2.666667	.9465728	0	3
ICD	126	1.812169	.4247792	.3333333	2

-> YEAR = 2016

Variable	Obs	Mean	Std. Dev.	Min	Max
HCScore	126	1	0	1	1
SCScore	126	1.769841	.6345102	0	2
CCScore	126	2.666667	.9465728	0	3
ICD	126	1.812169	.4247792	.3333333	2

-> YEAR = 2017

Variable	Obs	Mean	Std. Dev.	Min	Max
HCScore	126	1	0	1	1
SCScore	126	1.769841	.6345102	0	2
CCScore	126	2.642857	.975412	0	3
ICD	126	1.804233	.4427587	.3333333	2

-> YEAR = 2018

Variable	Obs	Mean	Std. Dev.	Min	Max
HCScore	126	1	0	1	1
SCScore	126	1.769841	.6345102	0	2
CCScore	126	2.666667	.9465728	0	3
ICD	126	1.812169	.4371545	.3333333	2

-> YEAR = 2019

Variable	Obs	Mean	Std. Dev.	Min	Max
HCScore	126	1	0	1	1
SCScore	126	1.785714	.6145846	0	2
CCScore	126	2.666667	.9465728	0	3
ICD	126	1.81746	.4353433	.3333333	2

-> YEAR = 2020

Variable	Obs	Mean	Std. Dev.	Min	Max
HCScore	126	1	0	1	1
SCScore	126	1.785714	.6145846	0	2
CCScore	126	2.666667	.9465728	0	3
ICD	126	1.81746	.4353433	.3333333	2

-> YEAR = 2021

Variable	Obs	Mean	Std. Dev.	Min	Max
HCScore	126	1	0	1	1
SCScore	126	1.777778	.6310485	0	2
CCScore	126	2.666667	.9465728	0	3
ICD	126	1.814815	.4372755	.3333333	2

Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) ICD	1.000											
(2) BST	-0.041	1.000										
(3) BPR	-0.041	0.076*	1.000									
(4) BCM	-0.079*	0.071*	0.062*	1.000								
(5) ONS	0.100*	-0.045	-0.154*	0.001	1.000							
(6) DIS	-0.077*	0.078*	0.799*	0.111*	-0.264*	1.000						
(7) ROA	-0.021	0.091*	0.054	0.004	0.010	0.069*	0.044					
(8) ACSIZE	0.099*	0.067*	-0.083*	-0.051	0.035	-0.120*	-0.055	1.000				
(9) RSKCM	0.028	-0.071*	0.004	-0.040	-0.081*	0.015	-0.076*	0.224*	1.000			
(10) FSIZE	-0.174*	0.116*	0.159*	-0.121*	0.014	0.206*	0.141*	-0.051	-0.021	1.000		
(11) LEV	0.017	-0.060*	-0.002	0.101*	0.028	-0.025	0.031	-0.048	-0.049	-0.112*	1.000	
(12) INTYPE	-0.004	-0.211*	-0.021	-0.160*	0.065*	-0.008	-0.056*	0.006	0.087*	0.072*	0.018	1.000

Variance Inflation Factor (VIF)

Variables	VIF	1/VIF
BST	2.71	0.408
DIS	2.64	0.422
BCM	2.04	0.471
ONS	2.61	0.486
BPR	3.53	0.153
ACSIZE	3.01	0.332
FSIZE	1.55	0.647
RSKCM	1.12	0.891
LEV	1.11	0.903
INTYPE	1.07	0.931
ROA	1.01	0.988

Normality Test

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj_chi2(2)	Prob>chi2
ICD	1.3e+03	0.0000	0.0000	.	0.0000
BCM	1.3e+03	0.0000	0.0000	.	0.0000
BST	1.3e+03	0.0000	0.0000	.	0.0000
BPR	1.3e+03	0.0000	0.0000	.	0.0000
ONS	1.3e+03	0.0000	0.0000	.	0.0000
DIS	1.3e+03	0.0000	0.0000	.	0.0000
ROA	1.3e+03	0.0000	0.0000	.	.
ACSIZE	1.3e+03	0.0000	0.0000	.	0.0000
RSKCM	1.3e+03	0.0000	.	.	0.0000
FSIZE11	1.3e+03	0.0000	0.0000	.	0.0000
LEV11	1.3e+03	0.0000	0.0000	.	.
INTYPE	1.3e+03	0.0000	0.0000	.	0.0000


```
. predict residu, resid

. sktest residu

                    Skewness/Kurtosis tests for Normality
                                                          ------- joint ------
    Variable |        Obs  Pr(Skewness)  Pr(Kurtosis) adj chi2(2)    Prob>chi2
-------------+----------------------------------------------------------------
      residu |    1.3e+03   0.0000          0.0000            .         0.0000
```

use linking words to connect the paragraphs

```
. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of ICD

         chi2(1)      =  1129.34
         Prob > chi2  =   0.0000
```

```
. xtabond2 ICD L.ICD BST BPR BCM ONS DIS ROA ACSIZE RSKCM FSIZE11 LEV11 INTYPE,
> iv(BST BPR BCM ONS DIS INTYPE LEV11 ACSIZE FSIZE) gmm(L.ICD)
Favoring space over speed. To switch, type or click on mata: mata set matafavor
> speed, perm.

Dynamic panel-data estimation, one-step system GMM
------------------------------------------------------------------------------
Group variable: ID                              Number of obs      =      1134
Time variable : YEAR                            Number of groups   =       126
Number of instruments = 54                      Obs per group: min =         9
Wald chi2(12) =  3.09e+07                                      avg =      9.00
Prob > chi2   =     0.000                                      max =         9
------------------------------------------------------------------------------
         ICD |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         ICD |
         L1. |   .3876356   .0294292    13.17   0.000     .3299554    .4453158
             |
         BST |   .0034072   .0005761     5.91   0.000     .0022781    .0045363
         BPR |   .0016656   .0002612     6.38   0.000     .0011538    .0021775
         BCM |   .0060575   .0003435    17.64   0.000     .0053843    .0067307
         ONS |  -.0070091   .0003509   -19.97   0.000    -.0076969   -.0063213
         DIS |   .0006656   .0001641     4.06   0.000     .0003439    .0009872
         ROA |  -.0054688   .0020016    -2.73   0.006    -.0093919   -.0015457
      ACSIZE |   .0009288   .0003826     2.43   0.015     .0001789    .0016786
       RSKCM |  -.0039056   .0021198    -1.84   0.065    -.0080604    .0002492
     FSIZE11 |   -.006333   .0015807    -4.01   0.000    -.0094311   -.0032349
       LEV11 |   -.000924   .0002648    -3.49   0.000     -.001443    -.000405
      INTYPE |  -.0018345   .0004842    -3.79   0.000    -.0027835   -.0008855
       _cons |   .6240707   .0327085    19.08   0.000     .5599633    .6881782
------------------------------------------------------------------------------
Instruments for first differences equation
  Standard
    D.(BST BPR BCM ONS DIS INTYPE LEV11 ACSIZE FSIZE)
  GMM-type (missing=0, separate instruments for each period unless collapsed)
    L(1/9).L.ICD
Instruments for levels equation
```

```
. xtabond2 ICD L.ICD BST BPR BCM ONS DIS ROA ACSIZE RSKCM FSIZE11 LEV11 INTYPE,
> iv(BPR BCM ONS DIS RSKCM INTYPE LEV11 ACSIZE FSIZE) gmm(L.ICD)
Favoring space over speed. To switch, type or click on mata: mata set matafavor
> speed, perm.

Dynamic panel-data estimation, one-step system GMM
------------------------------------------------------------------------------
Group variable: ID                              Number of obs      =      1134
Time variable : YEAR                            Number of groups   =       126
Number of instruments = 54                      Obs per group: min =         9
Wald chi2(12) =  3.16e+07                                      avg =      9.00
Prob > chi2   =     0.000                                      max =         9
------------------------------------------------------------------------------
         ICD |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         ICD |
         L1. |   .3697819   .0278612    13.27   0.000      .315175    .4243888
             |
         BST |  -.0005489   .0025288    -0.22   0.828    -.0055054    .0044076
         BPR |   .0016372    .000259     6.32   0.000     .0011295    .0021449
         BCM |   .0067368   .0005584    12.07   0.000     .0056424    .0078311
         ONS |  -.0069727   .0003934   -17.72   0.000    -.0077438   -.0062017
         DIS |   .0006107     .00016     3.82   0.000      .000297    .0009243
         ROA |  -.0029465   .0016812    -1.75   0.080    -.0062415    .0003486
      ACSIZE |   .0015852   .0006238     2.54   0.011     .0003626    .0028078
       RSKCM |   .0014381   .0005706     2.52   0.012     .0003197    .0025565
     FSIZE11 |  -.0065478   .0015715    -4.17   0.000    -.0096279   -.0034676
       LEV11 |  -.0010098   .0002601    -3.88   0.000    -.0015196   -.0004999
      INTYPE |   -.001511   .0004583    -3.30   0.001    -.0024092   -.0006128
       _cons |   .6438081   .0311692    20.66   0.000     .5827176    .7048987
------------------------------------------------------------------------------
Instruments for first differences equation
  Standard
    D.(BPR BCM ONS DIS RSKCM INTYPE LEV11 ACSIZE FSIZE)
  GMM-type (missing=0, separate instruments for each period unless collapsed)
    L(1/9).L.ICD
Instruments for levels equation
```