



## THE MODERATING INFLUENCE OF INTELLECTUAL CAPITAL ON THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE ATTRIBUTES AND FINANCIAL PERFORMANCE IN NIGERIA

Appah Ebimobowei (Phd)

Isaac Jasper Boro College of Education, Sagbama, Bayelsa State, Nigeria

Email: [appaebimobowei@yahoo.com](mailto:appaebimobowei@yahoo.com); Tel: +2348037419409

### Cite this article:

Appah Ebimobowei (2023), The Moderating Influence of Intellectual Capital on the Relationship Between Corporate Governance Attributes and Financial Performance in Nigeria. British Journal of Management and Marketing Studies 6(1), 31-54. DOI: 10.52589/BJMMS-ADR5PEQK

### Manuscript History

Received: 4 Jan 2023

Accepted: 24 Jan 2023

Published: 17 Feb 2023

### Copyright © 2022 The Author(s).

This is an Open Access article distributed under the terms of Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0), which permits anyone to share, use, reproduce and redistribute in any medium, provided the original author and source are credited.

**ABSTRACT:** *Corporate governance and intellectual competencies can provide corporate attractiveness and accomplishment. Hence, this study investigated the moderating effects of intellectual capital on the relationship between corporate governance attributes and the financial performance of listed companies in Nigeria. The study adopted ex post facto and correlational research designs. The population of the study was twenty-one (21) listed consumer goods manufacturing firms as of year-end 2020. The study used a census approach to determine a sample size of twenty-one (21) firms. Secondary data from the published annual financial reports of the sampled firms were used for data analysis. Descriptive statistics, correlation coefficient and multivariate analysis were used. The regression analysis revealed that board size has a positive and insignificant relationship with the return on equity of listed consumer goods manufacturing firms in Nigeria; Board independence has a positive and significant relationship with the return on equity of listed consumer goods manufacturing firms in Nigeria; board compensation has a negative and significant relationship with return on equity of listed consumer goods manufacturing firms in Nigeria; board diligence has a positive and significant relationship with return on equity of listed consumer goods manufacturing firms in Nigeria and intellectual capital positively and significantly moderates the relationship between corporate governance mechanism and return on assets of listed consumer goods manufacturing firms in Nigeria. The study concludes that intellectual capital moderates the relationship between corporate governance attributes and the financial performance of listed consumer goods manufacturing firms in Nigeria. The study recommends among others policymakers from listed firms should emphasise good corporate governance practices with quality intellectual input as a means of improving the level of financial performance. Hence, the implementation of corporate governance practices should be in terms of board accountability and transparency through quality human resources for the financial performance of listed firms in Nigeria.*

**KEYWORDS:** Board Size, Board Independence, Board Compensation, Intellectual Capital, Corporate Governance, Financial Performance



## INTRODUCTION

The academic debate on the association between corporate governance and financial performance is open and inconclusive. According to Paniagua et al (2018), scholars suggest that the relationship between corporate governance mechanisms (board size, board independence, board compensation, board diligence etc) and financial performance (return on assets, return on equity, earnings per share, TobinQ etc) are the mix, inconclusive and complex (Sarwar, et al, 2022; El-Chaarani et al, 2022; Marie, et al, 2021; Boshnak, 2021; Kisangi, 2021; Sarhan et al, 2019; Al-Bassam et al, 2018; Habtoor, 2019; Khan & Ali, 2018; Sarkar & Sarkar, 2018; Hatane et al, 2017; Braendle, et al 2017; Dong et al, 2017; Anginer et al, 2016; Whiting & Birch, 2016; Berger et al, 2016). These scholars have found multiple contradictory relationships between corporate governance and the financial performance of listed companies.

Corporate governance issues gained importance in the late 1990s and early 2000s due to the large-scale corporate failure of corporations globally including Tyco, Enron, Arthur Anderson, WorldCom, Goldman Sachs, Marconi, Parmalat, Lehman Brothers and Yukos. Esan et al (2020) argued that attention on corporate governance after the high-profile collapse of several firms led to the bankruptcy of numerous institutions globally. According to Gakpo et al (2021), these high-profile corporate failures were due to the neglect of corporate governance and international best practices and the registration of companies is pierced with corruption. The authors further noted that business and market operations lack transparency, dysfunctional public administration, distortions and poor corporate practices resulting in corporate failures and abysmal corporate financial performance, negatively impacting corporate organisational objectives (Agyemang & Castellini, 2015). Sarpong-Danquah et al (2018) noted that several reported cases of corporate failure are ascribed to poor corporate governance practices. The presence of weak corporate governance practices in firms can lead to the promotion of insider dealing.

According to Chytis, et al (2019), corporate governance is all about the relationship between the owners and managers in directing and controlling companies as separate entities. Omesi and Ordu (2021), Onyema and Major (2021), Hasibuan and Khomsiyah (2019), Ogebeide and Obaretin (2018) argue that corporate governance is a system of directing and controlling corporate entities, be in the private sector, public sector or financial institutions to fulfil long – term strategic goals, taking care of the welfare of their employees and the local community, maintaining harmonious relations with their suppliers and customers and work in compliance with the legal framework that exists in the country and use such processes of production that generate minimum externalities of the negative kind of the nation as a whole. It provides the mechanisms, processes and structures by which management ensures that resources are effectively and efficiently managed to achieve desired results by the owners (Salawu & Adedeji, 2017; Uchendu et al, 2016). Worlu (2018) maintains that corporate governance encompasses the efficient and effective management of the resources of a firm within the ambit of regulatory compliance and risk management principles. Waluyo (2017) suggested that the major aim of good corporate governance is generally associated with the accountability, responsibility and mechanism of the company to ensure a good attitude of the firm to protect the requirements of shareholders' including the payment of corporate and other taxes. The aim of good corporate governance is to ensure the efficient use of resources to reduce corporate fraud and mismanagement to maximise shareholders' wealth and align the conflicting



interests of all stakeholders (Yimbila, 2017). Hasibuan and Khomsiyah (2019) stated that good corporate governance reduces agency problems and increases corporate performance.

Financial performance has received significant consideration from scholars particularly in accounting and management (Ibrahim & Abdullahi, 2019). Performance is the strength on which a profit-making organisation wishes to remain in the business environment. Similarly, Mwangi and Murigu (2015) defined financial performance as a measure of an entity's income, returns and increase in corporate value that is mirrored through the increase in the price of the company's shares and can be equated with other companies across the sector or to relate the performance of businesses as a whole. The purpose for this is not far-fetched as financial performance has consequences for the health and long-term survival of organisations. According to Ibrahim and Abdullahi (2019), financial performance is observed as the efficient and effective use of resources by a firm for the achievement of corporate objectives resulting in the increase in share price, market share, and profitability and meeting the hopes of numerous stakeholders. Extant literature on corporate governance and financial performance in Nigeria indicated mixed outcomes. Some studies suggested a significant positive association between corporate governance and the financial performance of firms and others revealed a significant negative correlation between corporate governance and the financial performance of listed companies.

Corporate governance is linked with intellectual capital in which organisations report their intellectual capital. According to Bala et al (2019), Khan et al, (2017), Braendle et al, (2017), and Basyith (2016), companies that conform to corporate governance procedures must report their intellectual capital such as copyright, patent, trademark etc. The authors further stated that intellectual capital performs a vital role in realising the objectives of a firm and it also promises the survival and financial performance of organisations. Accordingly, the disclosure of corporate governance principles and the connection of intellectual capital with corporate governance consequently is an important part of realising performance (Bala et al, 2019; Nkundabanyanga, et al, 2014). Intellectual capital is vital information for investors to decrease indecision about the prospects of the firm in future (Bala et al, 2019; Hatane et al, 2017). It does ease the precision valuation of the value of the corporation and in the conclusion, it will eventually increase the performance of firms (Khan et al, 2017; Braendle et al, 2017; Noradiva et al, 2016; Berezinets et al, 2016; Nkundabanyanga, 2016).

Extant empirical studies conducted in Nigeria either explore the direct association between corporate governance and firm performance (Urhogghide & Omolaye, 2017; Alalade et al, 2019; Sani et al, 2019; Esan et al, 2020; Oluwole, 2021) or intellectual capital and firm performance (Ofurum et al, 2018; Kurfi et al, 2017; Onyekwelu et al, 2017). Nevertheless, intellectual capital does affect corporate governance positively and performance. From the above-mentioned, it is essential to study intellectual capital as a moderator in the connection between corporate governance and financial performance in Nigeria. Consequently, exploring the effect of intellectual capital on the relationship between corporate governance and financial performance can provide a new understanding of the conversation. Also, studies that explored whether intellectual capital moderates the connection between corporate governance and financial performance were conducted outside Nigeria (Hanate et al, 2017; Basyith, 2016; Nkundabanyanga, et al, 2017; Khan et al, 2018). Notwithstanding the prominence and enormous



advantages that accumulate to the practice of corporate governance by firms as a result of intellectual capital, there have been few studies conducted in Nigeria. Therefore, this study investigates the moderating influence of intellectual capital on the association between corporate governance and the financial performance of listed consumer goods manufacturing firms from 2011 to 2020 in Nigeria. The specific objectives are to:

1. investigate the relationship between board size and return on assets of listed consumer goods manufacturing firms in Nigeria;
2. evaluate the relationship between board independence and return on assets of listed consumer goods manufacturing firms in Nigeria;
3. determine the relationship between board compensation and return on assets of listed consumer goods firms in Nigeria;
4. investigate the relationship between board meetings and return on assets of listed consumer goods firms manufacturing in Nigeria;
5. evaluate the moderating impact of value added intellectual coefficient on the relationship between corporate governance mechanisms and the financial performance of listed consumer goods manufacturing firms in Nigeria.
- 6.

The following null hypotheses were tested in this study:

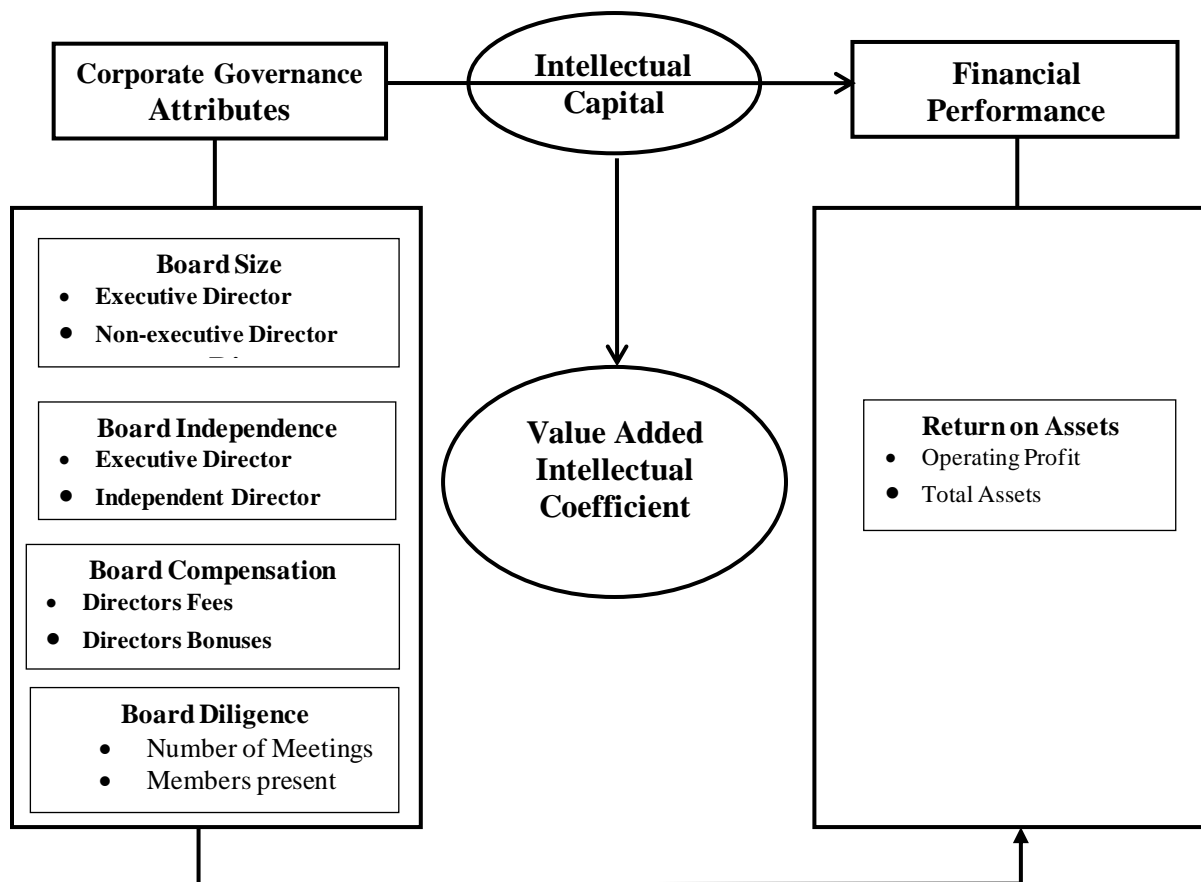
- H0<sub>1</sub>:** There is no significant relationship between board size and return on assets of listed consumer goods manufacturing firms in Nigeria.
- H0<sub>2</sub>:** There is no significant relationship between board independence and return on assets of listed consumer goods manufacturing firms in Nigeria.
- H0<sub>3</sub>:** There is no significant relationship between board compensation and return on assets of listed consumer goods manufacturing firms in Nigeria.
- H0<sub>4</sub>:** There is no significant relationship between board meetings and the return on assets of listed consumer goods manufacturing firms in Nigeria.
- H0<sub>5</sub>:** Value-added intellectual coefficient of listed consumer goods manufacturing firms in Nigeria does not significantly moderate the relationship between corporate governance mechanisms and financial performance.



**LITERATURE REVIEW**

This study is centred on three key variables, including corporate governance as the independent variable; financial performance being the dependent variable; and intellectual capital as the contextual factor.

**Conceptual Framework**



**Source:** Dumay and Guthrie (2017); Khan and Ali (2018); Bala et al (2019); Akinyele et el (2019)

**Concept of Corporate Governance:** Corporate governance is defined as the processes and procedures utilised to direct and manage the activities and events of a firm to balance the achievement of corporate objectives with the alignment of corporate behaviour to the expectations of society and accountability and transparency to shareholders and stakeholders (Christina & Alexander, 2018). Iqbal and Khan (2015) stated that corporate governance is the collection of linkages between the managers, shareholders, board of directors and other stakeholders of a firm.



Similarly, Hulya (2016) defined corporate governance as a means that ensures a business is fairly, efficiently, effectively and transparently managed in order to achieve corporate goals through better practices and structures. Yuniasih (2018), Omesi and Ordu (2021) stated that corporate governance consists of structures, systems, and processes utilized by the various organs of a firm as an effort to provide value-added firm sustainability in the long term by taking into consideration the interests of stakeholders based beliefs, ethics, norms and rules. It is based on professional ethics in the firm. Ndum and Oranefo (2021) described corporate governance as a mechanism used by organisations to reduce the agency cost that occurs due to a conflict of interest that happens between the agent and principal. The authors further noted that the conflict stems, almost logically due from the separation of ownership from control in contemporary organisations that keeps managers in an advantaged situation that provides them with the liberty to take decisions that could either meet with or establish the value maximisation objective of the firm. Hasibuan and Khomsiyah (2019) stated that corporate governance describes the means by which all stakeholders interested in the growth of the organisation attempt to ensure that managers take actions or implement mechanisms that protect the interests of the stakeholders. Ndum and Oranefo (2021) noted that such measures are required by the separation of ownership from management, an increasingly important attribute of contemporary organisations. The major aim of good corporate governance is to ensure the efficient use of resources to reduce corporate fraud and mismanagement to maximise and align the conflicting interests of all stakeholders (Yimbila, 2017). Hasibuan and Khomsiyah (2019) noted that good corporate governance reduces agency problems and improves corporate performance. Murni, et al (2016) submitted that good corporate governance inspires confidence in investors; liberalisation of financial markets; improvement of the basis for the establishment of new a corporate value system.

**Board Size:** The structure and size of the board are one of the most central factors to be considered in corporate governance mechanisms. According to Ali (2016), the board size should not be very large because it costs an enormous financial load which is greater than the agency cost nor the board should be too small that it may lead to biased decisions or weak decisions. Al-Matari and Mgammal (2019) investigated the moderating role of internal audit on the relationship between corporate governance and financial performance in Saudi Arabia that board size is an indicator of the quality of the board of directors and this dimension has been gathering attention among researchers, mainly when it comes to its effect on the board's oversight strength. The authors further noted that the size of the board is described as the number of directors located within the organisation and it is regarded to form the core of corporate governance mechanisms, via which monitoring top management is possible for the shareholders (Al-Matari & Mgammal, 2019). However, prior empirical studies (Villanueva-Villar, et al 2016; Fratini & Tettamanzi, 2015; Zabri, et al, 2016), disclosed that there exists a significant positive relationship between board size and firm performance. Some studies, (e.g. Villanueva-Villar, et al, 2016) indicated that variable board size insignificantly affects firm performance, whereas others such as (Bosnak, 2021) reveal a significant negative relationship between board size and firm performance. Some studies like (Villanueva-Villaret al; (2016) suggested that small boards are more effective and achieve better market value. Muturi (2016) investigated the corporate governance and financial performance of manufacturing firms in Nigeria. The study revealed a positive and significant relationship between board size and the financial performance of manufacturing firms in Kenya. Mandal and Al-Ahdal



(2018) conducted a study of corporate governance and financial performance of Indian electronic consumer goods firms. The study disclosed that board size positively and insignificantly affects the financial performance of electronic consumer goods in India. Naveed et al (2020) conducted a study of corporate governance on the profitability of banks in Pakistan. The findings of the study disclosed that board size is negatively related to the return on assets and return on equity of conventional banks in Pakistan.

**Board Independence:** This is the proportion of members of the board who are non-executive directors that influence board oversight. Ying (2015) noted that independent directors perform important monitoring responsibilities in companies. They are viewed as having superior incentives than the inside directors and are more likely to employ their technical, and professional expertise and experiences to provide defence against the behaviours of shareholders and directors. According to Boshnak (2021), the appointment of independent directors is an important means of minimising the potential conflict between principals and agents and should thereby improve the financial performance of firms. Some studies have shown that independent directors increase the performance of firms (Ahmed and Hamdan, 2015; Buallay et al., 2017; Khalifa et al., 2020). However, some other studies disclosed that independent directors decrease the financial performance of firms (Bhagat & Bolton, 2013; Vintila et al., 2015; Bosnak, 2021).

**Board Compensation:** Board compensation is used to indicate top employees' gross earnings in the form of financial rewards and benefits (Akewuosa & Saka, 2018). Cordeiro, et al (2016) stated that executive compensation can be examined as a system of rewards that can motivate employees to perform efficiently. Board compensation structure takes into consideration qualification, experience, attitude and prevailing rates in the labour market or industry (Ogbeide & Akanji, 2016; Yu & Van-Luu, 2016). According to Olaniyi, et al (2017), Board compensation is the financial compensation and other non-financial awards received by executives from their company for their service to the organisation. It is typically a mixture of salary, bonuses, shares of or call options on the company stock, benefits and perquisites, ideally configured to take into account government regulation, tax law, the desires of the organisation and the executive, and rewards for performance. Board compensation is a broad term for the financial compensation awarded to a firm's executives.

**Board Meeting:** Board meeting is the conscientiousness of the board of directors in handling strategic issues of the organization. This can be achieved through regular and timely meetings. Board diligence is a proxy for board meetings. The board meeting is a vital component of corporate governance as it offers an avenue for directors on the board to deliberate on various corporate issues and make strategic decisions that are relevant to the accomplishment of overall objectives (Sanyaolu et al, 2020). Whereas most governance codes usually indicate a minimum of four board meetings per annum without any threshold on the maximum time such meetings can be held, the relationship between frequencies of board meetings on companies' financial performance remains debatable. Empirical studies on board meetings and financial performance have produced conflicting evidence. While an aspect of the studies found evidence for a positive relationship between board diligence and financial performance (Eluyera et al., 2018), other studies hold the view that the relationship between them is negative. Sanyaolu et al (2020) study of board diligence and financial performance of deposit money banks in Nigeria revealed a negative and significant impact on the financial performance. Peter et al (2020) stated that a meeting is a major means of



carrying out the business of the board and strategically achieving the objective of the firm. The empirical evidence suggests that board meetings and firm performance are mixed. Arora and Sharma (2016), and Boshnak (2021) disclose a positive relationship between board meetings and firm performance while Arora (2012) discloses a negative effect between board meetings and firm performance.

**Financial Performance:** Performance is a concept used to examine the level at which an organization has succeeded in its line of business (Nwanyanwu, 2015). Almajali *et al.* (2012) argue that firm performance is basic to management because it is an achievement of an individual or a group of individuals in an organisation related to its authority and responsibility. Similarly, Omondi and Muturi (2013) suggested that performance is the function of the ability of a firm to gain and manage corporate resources in several diverse ways to develop a competitive advantage. Nuryanah and Islam (2011) agree with this view and further note that performance is the description of the level of achievement of the implementation of an activity to maximise the goals, objectives, mission and vision of an organisation. Financial performance is defined as the ability of a firm to maximise its cost of operations, efficiently use its assets and maximise the value of shareholders (Ibrahim & Abdullahi, 2019). It shows the effectiveness and efficiency of management in the use of corporate resources. It is further defined as the attempt by a firm to meet established goals or effective productivity. Also, it is a measure of the firm's earnings, profits and appreciation in its value which is disclosed by the rise in the market value of shares (Ibrahim & Abdullahi, 2019).

**Return on Assets:** Return on assets shows how profitable a company's assets are in generating revenue. Return on assets (ROA) is a ratio that measures a company's earnings before interests and taxes (EBIT) relative to its total assets (Sani et al, 2019). It is defined as the ratio between net income and total average asset or the amount of financial and operational income a company receives in a financial year as compared to the average of that company's total assets (Banda, 2019; Sani et al, 2019). The ratio is considered to be an indicator of how effectively a company is using its assets to generate earnings. Earnings before interests and taxes (EBIT) is used instead of net profit to keep the metric focused on operating earnings without the influence of tax or financing differences when compared to similar companies.

**Intellectual Capital:** The significance of intellectual capital (IC) as a knowledge-based capital consists of a set of imperceptible resources mostly connected to the working experience and abilities, proficiencies, information systems, records, copyrights, trademarks and client interactions, developed (Forte et al, 2019). According to Pratama (2017), intellectual capital is the only resource that agrees with the resource-based theory as it is the major point of importance in the formation and viable gain of companies. While intellectual capital definitions differ, all of them stress its rising prominence as knowledge-based capital and its connection with value formation. According to Braendle et al (2017), intellectual capital is the totality of all the individuals of a group recognize and a thing that can be converted into value. Hatane et al, (2017); Braendle et al, (2017) accepted that intellectual capital is a major asset that provides reasonable benefits by motivating links for greater performance in the present knowledge-created economies. Kurfi et al (2018) described intellectual capital as the entire knowledge that is enclosed in the people, administrative procedures and system interactions of an entity. The authors further state that





intellectual capital consists of three components: human capital (HC) structural capital (SC) and capital employed (CE) (Hatane et al, 2017; Braendle et al, 2017). Human capital is the general word for the capabilities, competencies, training and incentives of the personnel (Kurfi et al, 2018). Then structural capital includes all the non-human warehouses of information in organisations including records, organisational charts, procedure guides, tactics, sequences and anything that has an advanced value than its substantial worth to the business (Kurfi et al, 2018; Pongparchan, 2016) whereas capital employed on the other word contains all the monetary and non-monetary assets of the firm (Hatane et al, 2017; Braendle et al, 2017). Valued Added Intellectual Coefficient (VAIC) is one of the widely used models in the intellectual capital research field due to the fairness and consistency of the data on which it is founded and its simplicity of application (Smriti & Das, 2018). VAIC is not envisioned to afford a straight extent of intellectual capital, in its place, it has remained advanced to measure the efficacy of both concrete (capital employed) and imperceptible (human and structural capital) assets in the formation of companies' value-added (Xu & Liu, 2020; Xu et al, 2020). Additionally, it has been extensively used to explore the connection between intellectual capital, firms' performance and market value (Smriti & Das, 2018). Consequently, the VAIC establishes the foundation of empirical analysis of the present work. Intellectual capital is resources such as talents, competencies, expertise and proficiencies as companies' tactical assets capable to confirm justifiable modest benefits and greater monetary benefits over-suitable management and improvement procedures (Smriti & Das, 2018; Forte et al, 2019).

**Theoretical Review:** This study is anchored on agency theory. This theory was first advocated by Berle and Means (1932) but was further advanced by Jensen and Meckling (1976), Fama and Jensen (1983). Sani et al (2019) suggested that an agency problem arises in a situation where the principal (owners, shareholders) employs the agent (board/management) to undertake a number of duties on behalf of the owners for a reward. Olugbenga, et al (2014) stated that agency theory is the application of game theory to the explanation of the circumstances in which a person (the agent) acts on behalf of the principal for the advancement of the principal's objectives. According to Adeyemi, et al, (2019), agency theory is a unit of finance and accounting that explains the conflicts of interest between stakeholders with diverse interests in the same asset. According to Wangana and Karanja (2015), the agency model explains the separation of the principal and the agent which results in a conflict of interest in the ownership. Agency theory is the most popular issue in corporate governance studies as it hypothesises that in contemporary firms where share ownership is held widely, management actions depart from those required to maximise the wealth of shareholders. Atuahene (2016) maintained that agency theory is the beginning point for the corporate governance debate. The author further noted that this is due to the conceptual simplicity and the notion of human beings as self-interested is universally accepted (Atuahene, 2016). Scholars have criticised agency theory. According to Dallas (2011), the theory fails to identify which social returns needed to be pursued by organisations given their focus on the maximisation of profit. The author also stated that the theory does not set rules defining an acceptable level of risk (Narbel & Muff, 2017). Rappaport (2005) noted that agency theory over time has resulted in shareholders becoming fascinated with quarterly earnings thus forcing executives to concentrate solely on reported short-term financial performance measures (Narbel & Muff, 2017). Agency theory is faced with several limitations despite its popularity of this theory. Atuahene (2016) noted that in agency theory, the agent may have succumbed to self-interest, and opportunistic behaviour



and fallen short of congruence between the principal's aspirations and the agent's pursuit. This is because both the principal and agent may behave rationally and opportunistically in their dealings. This study is anchored on agency theory because this theory provides that corporate governance creates and monitors structures that are established by shareholders to ensure that managers maximise the wealth of shareholders by decreasing agency loss (Adegbite, et al, 2012; Tshipa, 2017).

### **Empirical Review**

There are several previous empirical investigations on the association between corporate governance mechanisms and financial performance in developed and developing countries. Some of these studies are reviewed below to observe the trends of the findings and the gaps in the literature.

Mandal and Al-Ahdal (2018) analysed corporate governance on the financial performance of Indian electronic consumer companies for the period 2010 to 2017. The study employed ex post facto and correlational research designs. The population and sample consisted of all firms listed on the National Stock Exchange and Bombay Stock Exchange. The dependent variables were return on assets and return on capital employed and the independent variable consisted of board size, audit committee meetings and audit committee independence while the firm size was used as a control variable. The study utilised secondary data from the annual reports of the sample firms and the data was analysed using descriptive, correlational matrix and multiple regression. The multivariate analysis disclosed that board size, audit committee meeting and firm size do not significantly influence financial performance as measured by return on assets (ROA) and return on capital employed. Also, audit committee independence does significantly affect financial performance as measured by return on assets (ROA) and return on capital employed.

Sani et al (2019) carried out a study of corporate governance and financial performance of deposit money banks in Nigeria for the period 2011 to 2018. The study used ex-post factor and correlational research designs. The population consisted of deposit money banks listed on the Nigerian Stock Exchange as of 31 December 2018 and convenience sampling was employed to arrive at a sample size of 8 banks. The study used secondary data from the published financial statements of sample banks. The dependent variable was a return on assets (ROA) and the independent variables were CEO duality and management equity holding. The secondary data obtained from the published financial reports were analysed using multivariate analysis. The findings revealed that CEO duality does not significantly affect the return on assets while management equity holding significantly affects the return on assets of deposit money banks in Nigeria.

Ochego et al (2019) investigated corporate governance on financial performance and firm value of commercial banks in Kenya for the period 2008 to 2018. The study employed an explanatory research design. The target population of the study consisted of 44 commercial banks and secondary data from the published financial reports of sample banks were used for data analysis. The secondary data collected from the financial report were analysed using regression analysis. The findings disclosed that corporate governance significantly affects firm value; corporate



governance insignificantly influences financial performance; financial performance significantly affects firm value and also corporate governance significantly influences firm value.

Ali et al (2020) examined corporate governance and firm performance using meta-analysis. The study employed an ex post facto research design. The study employed secondary data from existing studies and meta-analysis was employed for the process of data analysis. The dependent variable was firm performance while the independent variables were corporate governance and control variables of firm size, firm age, firm leverage and industry. The meta-analysis result disclosed for developed countries a significant positive association between board meetings and female representation and firm financial performance. On the other hand, the board size, firm age, leverage and industry have a significant negative relationship. Also, board independence and firm size were found to have an insignificant relationship. The meta-analysis also showed for developing countries that ownership concentration and firm size significantly and positively affect firm financial performance while board meetings, managerial ownership, firm age and leverage significantly and negatively affect firm performance. Further, the board size, CEO duality, board independence, female representation on the board and industry revealed an insignificant association.

Paniagua et al (2018) carried out a study of corporate governance and financial performance of 1207 firms from 59 countries for the period 2013 to 2015. The study used ex-post, correlational research design, multi-method and multi-country approaches. The target population consisted of listed firms from 59 countries for the period. A sample of 1207 firms was used for the purpose of data analysis. The study used secondary data from the annual reports of sampled firms. The dependent variable was return on assets while independent variables consisted of ownership dispersion, board members, and dividends, while the control variables were employees, assets and capital. The secondary data obtained from the financial reports were analysed using univariate, bivariate, and multivariate analysis. The result indicates a positive and significant relationship between ownership dispersion, board members and dividends on financial performance.

Akbar et al (2019) carried out a study of corporate governance and firm performance of listed firms in Pakistan. The study employed ex-post facto and correlational research designs. The target population consisted of 650 listed firms and a sample of 191 firms was used for the purpose of data analysis. The dependent variable firm performance (return on assets and TobinQ) and the independent variable corporate governance (board size, board independence, board meeting, CEO duality, concentrated ownership, managerial ownership, institutional ownership, managerial ownership square, audit quality, audit committee composition, change in corporate governance code) while the control variable in the study was firm size. The study utilised secondary data for the purpose of data collection and the data was analysed using descriptive statistics, correlation matrix and general method of the moment. The result indicates a positive relationship between board size and financial performance (return on assets) while TobinQ indicates a negative relationship with board size. The findings also showed that board independence affects return on assets positively and TobinQ negatively. The study also disclosed a positive relationship between board meetings and financial performance and a negative relationship between CEO duality and financial performance. The study also revealed that concentrated ownership influences financial performance (TobinQ). Similarly, the study also showed a positive association between managerial



ownership and firm performance. The results also suggested a negative relationship between institutional ownership and firm performance. Also, the study found a positive relationship between audit quality and audit committees on firm performance.

Noor, et al (2019) investigated corporate governance, firm attributes and financial performance of listed firms in Pakistan for the period 2010 to 2018. The study utilised ex post facto and correlational research design. The target population consisted of all 591 non-financial firms and a sample of 201 was used. The dependent variable is financial performance (return on assets, return on equity and TobinQ) while the independent variable is corporate governance (board size, board independence, CEO duality, board activity, audit committee size, audit committee independence, audit committee activity, external audit quality, managerial ownership, institutional ownership, foreign ownership, associated ownership, corporate governance index) while control variables used firm size, firm age and leverage). The study employed secondary data from the published financial reports of sampled firms. The secondary data obtained were analysed using descriptive and multiple regression analysis. The result indicated that audit committee structure (audit committee independence, audit committee activity, external audit quality) positively affects financial performance (return on assets, return on equity and TobinQ). The findings also revealed that board structures (board size, board independence, CEO duality, board activity) negatively influence financial performance (return on assets, return on equity and TobinQ). Also, the study disclosed that ownership structures are insignificantly related to financial performance. Managerial ownership indicates a negative relationship with financial performance; institutional ownership negatively and insignificantly affects financial performance; foreign ownership positively and insignificantly influences the financial performance of listed companies in Pakistan.

Hatane, et al (2017) carried out a study of corporate governance and intellectual capital on firm value of consumer goods firms in Indonesia and Malaysia for the period 2010 to 2015. The study employed ex-post facto and correlational research designs. The population of the study consisted of consumer goods firms listed on the Indonesia Stock Exchange and Bursa Malaysia and a sample of 25 firms for Indonesia and 106 firms for Malaysia. The study employed a secondary source of data collection from the published financial reports of sampled firms. The dependent variable was firm value measured with TobinQ and the independent variable was board ownership, the board size, and board composition, with the value-added intellectual coefficient as an intervening variable. The data obtained from the annual reports were analysed with descriptive statistics and multiple regression. The result disclosed that managerial ownership positively and significantly affects intellectual capital and firm value in Indonesia while Malaysia showed a negative relationship. Board size and composition do not significantly affect intellectual capital in Indonesia while the result was significant in Malaysia. Intellectual capital disclosed an insignificant relationship with firm value in Indonesia while the result revealed a significant association in Malaysia.

Khan et al (2018) analysed the moderating effects of intellectual capital on the association between corporate governance and firm performance in Pakistan for the period 2012 to 2015. The study used ex-post facto and correlational research designs. The population consisted of non-financial firms listed on the Pakistan Stock Exchange for the study period and a sample of 130 firms. The study employed secondary sources of data from the annual reports of sampled firms. The



dependent variable was return on assets (ROA) and return on equity (ROE) and the independent variables consisted of board size, board independence, CEO duality, gender diversity and board financial expertise. The study also employed intellectual capital as a moderator variable with control variables of leverage, firm size and ownership concentration. The data collected from the annual reports of sampled firms were analysed with descriptive statistics and multiple regression analysis. The result from the multiple regression revealed that intellectual capital significantly moderates the association between board size, board financial expertise, CEO duality, gender diversity and return on assets (ROA) while intellectual capital does not significantly moderate the relationship between board independence and return on assets (ROA). The authors' findings also disclosed that intellectual capital significantly affects board size, board independence, CEO duality, gender diversity and return on equity but has no moderating influence on the relationship between board expertise and return on equity (ROE).

Bala et al (2019) investigated the mediating role of intellectual capital on corporate governance and firm performance of listed conglomerate firms in Nigeria. The study employed ex-post facto and correlational research designs. The population consisted of listed conglomerates on the Nigerian Stock Exchange. The study used secondary data from the annual reports of sample firms. The secondary obtained from the annual reports were analysed using descriptive statistics, correlational matrix and multiple regression analysis. The result showed an insignificant relationship between board size and institutional ownership of intellectual capital. The findings also revealed a significant relationship between board size and institutional ownership on firm performance.

Habtoor (2020) conducted a study of the moderating role of ownership concentration on the association between board composition and the performance of banks in Saudi Arabia for the period 2011 to 2018. The study employed both ex post facto and correlational research designs and a sample of 12 banks with 96 observations. The study employed secondary data from the annual reports of sampled banks and the data were analysed using univariate, bivariate and multivariate analysis. The dependent variable was a return on assets and TobinQ while the independent variable of board composition while ownership concentration was a moderator variable. The result showed a negative and significant moderating effect on the relationship between board composition and the performance of banks. The findings of the author also indicate that board composition has a weak positive effect on the performance of banks.

## METHODOLOGY

This study investigated the moderating influence of intellectual capital on the relationship between corporate governance mechanisms and the financial performance of consumer goods manufacturing firms in Nigeria. This study adopted ex post facto and correlational research design. The population consisted of twenty-one (21) listed consumer goods manufacturing firms in Nigeria. Naturally, since the population is small, a census approach should have been the ideal technique. A sample size of sixteen (16) firms was realized due to data availability giving rise to one hundred and sixty (160) data points comprising of ten-year observations (i.e. 2011 -2020) per



sampled firm. The data analysis was executed in three distinct stages. Firstly, a univariate (or descriptive) analysis was executed, followed by a bivariate analysis and lastly, a multivariate analysis. This study is guided by the linear model below:

$$ROA_{it} = \beta_0 + TAS_{it-1} + TAS_{it-2} + \beta_1 BOS_{it-1} + \beta_2 BOI_{it-1} + \beta_3 BOC_{it-1} + \beta_4 BOM_{it-1} + \beta_5 VAIC_{it-1} + \beta_6 VAIC * BOS_{it-1} + \beta_7 VAIC * BOI_{it-1} + \beta_8 VAIC * BOC_{it-1} + \beta_9 VAIC * BOM_{it-1} + \beta_{10} LEV_{it} + \beta_{11} LIQ_{it} + \epsilon_{it} \text{-----} (1)$$

**Table 1: Measurement of Variables**

Variables	Type of Variable	Symbol	Measurement	Sources
Return on Assets	Dependent	ROA	Operating profit divided by total assets	Salawu & Adedeji (2017); Hasibuan and Khomsujah (2019)
Board Size	Independent	BOS	Total number of directors on the board	Habtoor (2020)
Board Independence	Independent	BOI	Number of independent directors divided by total number of directors	Ogbeide and Obaretin (2018); Aburajah, et al (2019); Chytis, et al (2019); Zhu, et al (2019)
Board Compensation	Independent	BOC	Salary and benefits received by executive during the year	Razali et al (2019);
Board Meeting	Independent	BOM	Number of meetings held by the board within a year.	Peter et al (2020); Barros & Sarmento (2020)
Leverage	Control	LEV	Total long-term debt divided by total assets	Zhu, et al (2019)
Firm Size	Control	FIS	Log of total assets	Zhu, et al (2019)
Liquidity	Control	LIT	Current Ratio	Mustika et al (2017)
Intellectual Capital	Moderator	VAIC	The addition of human capital efficiency + structural capital efficiency + capital employed efficiency + relational capital efficiency	Hatane, et al (2017); Khan & Ali (2018); Hatane et al (2017)

*Source: Compiled by the Researcher (2021)*



## RESULTS AND DISCUSSIONS

This section of the study shows the analysis of data (univariate, bivariate and multivariate analysis) and discussion of findings.

**Table 2: Univariate Analysis**

	ROA	BOS	BOI	BOC	BOM	LEV	FIS	LIQ	VAIC
Mean	0.127146	144.0863	14.19038	4.684871	49.42764	0.583583	7.409126	1.262771	5.718242
Median	0.094450	1.000000	0.300000	4.838250	0.778200	0.582300	7.552650	1.055350	5.659800
Maximum	1.244100	11761.00	2222.000	6.141900	7782.000	1.504500	8.647800	8.497300	18.98930
Minimum	-0.179700	0.602100	0.076900	0.071400	0.602100	0.193600	0.534400	0.073900	-2.982400
Std. Dev.	0.154619	1276.485	175.6405	0.920823	615.1584	0.190131	1.092224	1.021955	3.475474
Skewness	3.586994	8.785761	12.53021	-1.889457	12.53020	1.578256	-3.266784	4.629169	0.698567
Kurtosis	25.27241	78.24990	158.0061	9.346846	158.0061	9.267663	20.41944	32.31784	4.307814
Jarque-Bera	3650.177	39808.70	164366.2	363.7509	164366.1	328.3144	2307.495	6301.685	24.41573
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000005
Sum	20.34340	23053.81	2270.461	749.5793	7908.422	93.37320	1185.460	202.0433	914.9187
Sum Sq. Dev.	3.801210	2.59E+08	4905082.	134.8186	60168766	5.747834	189.6795	166.0582	1920.548
Observation	160	160	160	160	160	160	160	160	160

**Source:** Authors computation Using E-view 10

Table 2 shows the univariate analysis of the independent, dependent, control and moderator variables. The mean of ROA, BOS, BOI, BOC, BOM, LEV, FIS, LIQ and VAIC were 0.127146, 144.0863, 14.19038, 4.684871, 49.42764, 0.583583, 7.409126, 1.262771 and 5.718242. The standard deviation of ROA, BOS, BOI, BOC, BOM, LEV, FIS, LIQ and VAIC were 0.154619, 1276.485, 175.6405, 0.920823, 615.1584, 0.190131, 1.092224, 1.021955, and 3.475474. The skewness of ROA, BOS, BOI, BOC, BOM, LEV, FIS, LIQ and VAIC were 3.586994, 8.785761, 12.53021, -1.889457, 12.53020, 1.578256, -3.266784, 4.629169 and 0.698567.

**Table 3: Bivariate (Correlation Matrix) Analysis**

	ROA	BOS	BOI	BOC	BOM	LEV	FIS	LIQ	VAIC
ROA	1.000000								
BOS	-0.026806	1.000000							
BOI	-0.055176	0.026033	1.000000						
BOC	-0.279094	0.343863	-0.016082	1.000000					
BOM	-0.002173	0.138946	-0.008916	-0.006278	1.000000				
LEV	0.056258	0.230152	0.056258	0.04374	0.034362	1.000000			
FIS	0.046425	0.027365	0.037485	0.042374	0.028346	0.018274	1.000000		
LIQ	0.193015	0.138475	0.283474	0.187364	0.174832	0.163542	0.128374	1.000000	
VAIC	0.068002	0.037465	0.047463	0.036274	0.027384	0.062837	0.062847	0.048576	1.000000

*Source: Authors computation Using E-view 10*

The pairs of variables falling within this category are *BOS* versus *BOI*, *BOC* and *BOM* which approximately yield correlation coefficients. The relatively low levels of correlation as indicated in the table clearly establish there is no multicollinearity in the model.

**Table 4: Result on Moderating Influence of Intellectual Capital on ROA**

Dependent Variable: ROA

Method: Panel Least Squares

Date: 10/16/22 Time: 06:45

Sample: 2011 2020

Periods included: 10

Cross-sections included: 16

Total panel (balanced) observations: 160

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BOS	2.92E-06	1.15E-05	0.254789	0.7993
BOI	0.002342	0.000755	3.104521	0.0023
BOC	-0.021101	0.030799	-0.685118	0.4945
BOM	0.361466	0.064339	2.618168	0.0370
LEV	-0.161783	0.061464	-2.632169	0.0095
FIS	0.012273	0.029394	0.417539	0.6770
LIQ	-0.050252	0.034809	-1.443643	0.1512
VAIC	0.005752	0.033673	0.170822	0.0446
VAIC*BOS	-4.76E-07	1.71E-06	-0.277709	0.0817
VAIC*BOI	0.024087	0.007687	3.133456	0.0021
VAIC*BOC	-0.012299	0.005574	-2.206388	0.0291
VAIC*BOM	0.008583	0.010907	0.786937	0.4327
C	0.106797	0.190378	0.560975	0.5758






---

 Effects Specification
 

---

 Period fixed (dummy variables)
 

---

R-squared	0.887829	Mean dependent var	0.127146
Adjusted R-squared	0.846352	S.D. dependent var	0.154619
S.E. of regression	0.077871	Akaike info criterion	-2.114840
Sum squared resid	0.806506	Schwarz criterion	-1.595905
Log likelihood	196.1872	Hannan-Quinn criter.	-1.904119
F-statistic	18.99435	Durbin-Watson stat	1.779615
Prob(F-statistic)	0.000000		

---

*ors own computation*
*Using E View 10*

Table 4 shows the moderating influence of intellectual capital on corporate governance and financial performance of listed consumer goods companies in Nigeria. The  $R^2$  of the regression analysis showed 88.8% and that of adj- $R^2$  was 84.6%. The DW-stat 1.779615 indicates less interference of autocorrelation in the standard errors of the coefficients. Equally of interest to note are the improvements in the other various indicators of the information quality of the model.

For instance, ROA's response to a unit change in BOS is  $(2.92E - 06 - 3.49E - 06VAIC)$  It implies that ROA is positively associated with BOS provided its coefficient:  $(2.92E - 06 - 3.49E - 06VAIC)$  will remain greater than zero. In plain terms, the board size of listed consumer-goods manufacturing firms which seek to achieve board size increases their return on assets. Likewise, ROA's response to a unit change in BOI is  $(0.002342 - -4.91E - 06VAIC)$  which is positive. However, this positive coefficient only remains so provided its absolute value remains greater than zero. In other words, provided BOI is greater than zero (i.e. 0), the positive sign will remain so. However, the average VAIC in the industry is higher than 0, implying that ROA is expected to relate positively with BOI. This explains why BOI has a positive sign. In simple terms, it means board independence needs to be high in order for a positive relationship to exist between BOI and ROA. Finally, from the empirical result in table 4, ROA is positively related to BOC, BOM, and FIS, and then a negative relationship exists between ROA and LEV and LIQ. In a nutshell, following the foregoing analysis and results obtained therefrom, there is sufficient statistical justification to reject hypothesis  $H_{05}$  which states that: "intellectual capital of listed Nigerian consumer-goods manufacturing firms does not significantly moderate the relationship between their corporate governance and return on asset".



**Board Size and Financial Performance:** The hypothesis tested from the regression analysis revealed that board size has a positive and insignificant relationship with the return on assets of listed consumer goods manufacturing firms in Nigeria for the period 2011 to 2020. The result of this current study is consistent with the findings of White and Birch (2016), Berger et al (2016), Sarkar and Sarkar (2018) which showed a positive relationship between board size and financial performance. In some other studies Zhou et. al., (2018); Khalifa et al., (2020) also found a positive association between board size and financial performance. The study negates the findings of

**Board Independence and Financial Performance:** The hypothesis tested from the regression analysis disclosed that board independence has a positive and significant relationship with the return on assets of listed consumer goods manufacturing firms in Nigeria for the period 2011 to 2020. The result of this study agrees with the findings of Altuwaijri and Kalyanaraman (2016), Dong et al (2017), Ahmed and Hamdan, 2015; Buallay et al., 2017; Khalifa et al., 2020) investigation showed a positive influence between board independence and firm performance of non-financial listed companies. Also, Dong et al (2017) found a positive association between board independence and financial performance. However, the research by Bhagat & Bolton, (2013); Vintila et al., (2015) disagrees with some other studies that indicated that greater board independence destroys the financial performance of organisations.

**Board Compensation and Financial Performance:** The hypothesis tested from the regression analysis showed that board compensation has a negative and significant relationship with the return on assets of listed consumer goods manufacturing firms in Nigeria for the period 2011 to 2020. The findings of this study corroborate the studies conducted by Denirer and Yuan (2013), Usman, et al (2015) that board compensation negatively affects the financial performance of listed companies. In an assessment of the unbalanced pay-for-performances proposition in Chinese banks, Cordeiro et al. (2016) established that there is an unbalanced connection between board compensation and financial performance. The asymmetry is better when firm performance is above the regional median and when the accounting performance is positive. However, the study findings empirically support prior (Yu & Van-Luu, 2016; Usman, et al, 2015) that board compensation negatively affects a firm financial performance. The study of Ogbeide and Akanji (2016) disclosed that board remuneration negatively and insignificantly influences the financial performance of firms. A similar study conducted by Nyaoga et al (2014) indicated a negative association between executive compensation and the financial performance of listed firms. In contrast, other studies showed a positive relationship between board compensation and firm financial performance.

**Board Meetings and Financial Performance:** The hypothesis tested from the regression analysis showed that board meeting has a positive and significant relationship with the return on assets of listed consumer goods manufacturing firms in Nigeria for the period 2011 to 2020. This research is consistent with the findings of Arora and Sharma (2016), Boshnak (2021), and Eluyera et al., (2018) that explained a positive relationship between board meetings and financial performance while other studies hold the view that the relationship between them is negative (Sanyaolu et al (2020). Sanyaolu et al (2020) study of board diligence and financial performance of deposit money banks in Nigeria revealed a negative and significant impact on the financial performance. Peter et al (2020) stated that a meeting is a major means of carrying out the business of the board and



strategically achieving the objective of the firm. Arora (2012) disclose a negative effect between board meetings and firm performance.

**Financial Leverage and Financial Performance:** The hypothesis tested from the regression analysis showed a negative and significant relationship between financial leverage and financial performance (return on equity) of listed consumer goods firms in Nigeria. This result is in agreement with the findings of Kithandi, (2020), and Iqbal and Usman (2018). The study of Kithandi, (2020) showed a significant negative effect of financial leverage on the financial performance of listed energy and petroleum companies in Kenya. Also, the study of Iqbal and Usman (2018) indicated that financial leverage and firm financial performance of textile companies in Pakistan revealed a significant negative association. However, the result is in disagreement with the findings of Taqi et al (2020) which analysed the influence of leverage on the profitability of India's oil and gas sector. The study discovered that leverage has a positive connection with the profitability of sampled Indian oil and gas firms. Similarly, Anifowose, et al (2020) examined the effect of financial leverage on firms' performance of listed pharmaceutical firms in Nigeria and the results disclosed that debt-equity has a robust positive significance on the financial performance of pharmaceutical firms in Nigeria.

**Firm Size and Financial Performance:** The hypothesis tested from the regression analysis showed a positive and insignificant relationship between financial leverage and financial performance (return on equity) of listed consumer goods firms in Nigeria. The result of this research corroborates the outcomes of Oyelade, (2019) and Omenyo & Muturi, (2019) findings that the size of a firm positively influences the financial performance of companies. However, the findings negate the studies conducted by Močnik and Širec (2015) carried out a study of firm size and corporate financial performance in Slovenia. The result indicated a negative association between firm size and corporate financial performance. Likewise, Kouser et al. (2012) examined the firm size, growth and profitability of non-financial companies in the Karachi stock exchange over the period of 2010 - 2010. The findings indicated a less significant negative influence of size on financial performance in Pakistani companies. Also, Vintilă and Duca (2015) analysed firm size on the return on equity. The findings revealed a negative association between total assets, total sales and return on equity.

**Liquidity and Financial Performance:** The hypothesis tested from the regression analysis showed a negative and insignificant relationship between financial leverage and financial performance (return on equity) of listed consumer goods firms in Nigeria. The result is consistent with the research conducted by Maina (2017) on the liquidity and financial performance of listed firms in Kenya. The findings revealed an insignificant negative association between liquidity firms' profitability. The author further disclosed that no causal connection between liquidity and firms' profitability using return on assets as the proxy. However, the result is not in agreement with the findings of Shimenga and Miroga (2019) examined financial leverage and liquidity on firm performance in Kenya. The result indicated that financial leverage and liquidity significantly affect the financial performance of listed manufacturing firms in the Nairobi Stock Exchange. Swagatika and Ajaya (2018) analysed the determinants of profitability in Indian manufacturing firms. The results indicated a significant positive association between liquidity and firms' profitability.



**Intellectual capital on Corporate Governance and Financial Performance:** The hypothesis tested from the regression analysis showed that intellectual capital positively and significantly moderates the relationship between corporate governance mechanism and return on assets of listed consumer goods manufacturing firms in Nigeria for the period 2011 to 2020. Previous studies have established that intellectual capital has a positive effect on financial performance. For example, Ma, et al (2017) establishes that human and structural capital positively impacts the return on net assets of Chinese manufacturing companies. Xu (2017) stated that intellectual capital and its components—organizational capital and relational capital—contribute meaningfully to firm performance (measured through profit margin). The results of Sardo and Serrasqueiro (2018) documented that intellectual capital efficiency in the current period positively influences corporate return (ROA) and growth opportunities of non-financial listed firms in 14 European nations. Xu and Wang (2018), collecting data from Korean manufacturing firms, resolved that intellectual capital is useful for the enhancement of financial performance (measured by ROA, ROE, net profit margin, and gross profit margin) and sustainable growth. Vidyarthi (2019), utilizing Data Envelopment Analysis (DEA) method based on 38 listed Indian banks from 2004–2016, showed evidence that higher investment in intellectual capital can advance operating efficiency and value creation. Li and Zhao (2018) estimated the relationship between IC (measured by human capital and organizational capital) and firm value and found a strong association between organizational capital and firm value measured through ROA, ROE, growth in sales, and capital market return. The results of Xu and Li (2019) also revealed that intellectual capital advances firm performance in both high-tech and non-high-tech SMEs. Applying the extended VAIC model, Xu, et al (2020) suggested that executive human capital positively impacts sustainable growth for China's high-tech agricultural listed companies. However, Britto, et al (2014) using data from Brazilian real estate firms, establish that intellectual capital has a negative influence on market value. Consequently, it is anticipated that intellectual capital can moderate the association between corporate governance mechanisms and the financial performance of companies.

## SUMMARY OF FINDINGS, CONCLUSION(S) AND RECOMMENDATIONS

The findings from the regression analysis disclosed that:

1. Board size has a positive and insignificant relationship with the return on equity of listed consumer goods manufacturing firms in Nigeria;
2. Board independence has a positive and significant relationship with the return on equity of listed consumer goods manufacturing firms in Nigeria;
3. Board compensation has a negative and significant relationship with the return on equity of listed consumer goods manufacturing firms in Nigeria;
4. Board diligence has a positive and significant relationship with the return on equity of listed consumer goods manufacturing firms in Nigeria.



5. Intellectual capital positively and significantly moderates the relationship between corporate governance mechanism and return on assets of listed consumer goods manufacturing firms in Nigeria.

The study investigated the association between corporate governance and financial performance (return on equity) in Nigeria. The need for effective and efficient corporate governance cannot be overemphasized due to the significance of the financial performance of listed companies in Nigeria. Based on data obtained from the listed consumer goods manufacturing firms in Nigeria for the period 2011 to 2020, data analysis, discussion of findings and summary of findings above, we concluded that;

1. Board size positively and insignificantly influences the return on equity of listed consumer goods manufacturing firms in Nigeria;
2. Board independence positively and significantly influences the return on equity of listed consumer goods manufacturing firms in Nigeria;
3. Board compensation negatively and significantly affects the return on equity of listed consumer goods manufacturing firms in Nigeria;
4. Board meetings positively and significantly affect the return on equity of listed consumer goods manufacturing firms in Nigeria.
5. Intellectual capital positively and significantly moderates the association between corporate governance mechanisms and return on assets of listed consumer goods manufacturing firms in Nigeria.

Based on the findings made in the course of this study, the following recommendations are hereby suggested:

1. The study recommended that board sizes should be enhanced as this allows for the appropriate combination of directors. A large board increases the chance of directors having appropriate knowledge, skill and networks. The knowledge, skill and networks of directors may increase the financial performance of an organization.
2. The study recommends that firms should have non-executive directors who act as professional advisers to ensure that competition among insiders encourages measures consistent with the maximisation of shareholder value.
3. Listed firms in Nigeria should consider the suitable and reasonable compensation levels of the board of directors. The reward will provide a better association between shareholders and the firm's management and this relationship will increase the firm's financial performance to maximise the value of shareholders.
4. The study recommends that firms should engage in high-quality board meetings that would likely translate to better financial performance and maximisation of shareholders' wealth. Also, holding quarterly board meetings would expand the decision-making process by the



board of directors through beneficial arguments and distribution of vital information by board members that would contribute to the improvement of the financial performance of listed firms.

5. This study recommends that policymakers from listed firms should emphasise on good corporate governance practices with quality intellectual input as a means of improving the level of financial performance. Hence, the implementation of corporate governance practices should be in terms of board accountability and transparency through quality human resources for the financial performance of listed firms in Nigeria.

## REFERENCES

- Anifowose, A. D., Soyebó, Y.A., Tanimójo, T. A. (2020). Effect of financial leverage on firm's performance: Case of listed pharmaceutical firms in Nigeria. *International Journal of Academic Accounting, Finance and Management Research*, 4(4), 1-9.
- Appah, E. (2022a). Corporate governance attributes and tax planning of listed pharmaceutical companies in Nigeria. *British Journal of Management and Marketing Studies*, 5(1), 1 – 38.
- Appah, E. (2022b). Corporate governance characteristics and firm value of deposit money banks in Nigeria. *British Journal of Management and Marketing Studies*, 5(2), 109 - 129.
- Appah, E. (2022c). *Corporate governance mechanisms and financial performance of listed consumer goods firm in Nigeria*. PhD Thesis, Department of Accounting, Ignatius Ajaru University of Education, Port Harcourt, Rivers State, Nigeria.
- Appah, E. (2019). *Financial management: Theory, strategy and practice*, Ezevin Printing and Publishing Company.
- Arora, A. (2012). Corporate governance and firm performance in Indian pharmaceutical sector. *An International Journal*, 40(6), 537-550.
- Arora, A., & Sharma, C. (2016). Corporate governance and firm performance in developing countries: evidence from India. *Corporate Governance (Bingley)*, 16(2), 420-436.
- Boshnak, H. A. (2021). Corporate governance mechanisms and firm performance in Saudi Arabia. *International Journal of Financial Research*, 12(3), 446 – 465.
- Britto, D. P., Monetti, E., & Lima, J. D. R. Jr. (2014). Intellectual capital in tangible intensive firms: The case of Brazilian real estate companies. *Journal of Intellectual Capital*, 15(2), 333-348.
- Cordeiro, J., He, L., Conyon, M., Shaw, T. (2016). Chinese executive compensation: The role of asymmetric performance benchmarks. *The European Journal of Finance*, 22(4-6), 484-505.
- Eluyela, D.F., Akintimehin, O.O., Okere, W., Ozordi, E., Osuma, G. O., Ilogho, S. O., & Oladipo, O.A. (2018). Board meeting frequency and firm performance: examining the nexus in Nigerian deposit money banks. *Heliyon*, 4(10), 1-15. <http://dx.doi.org/10.1016/j.heliyon.2018.e00850>.
- Iqbal, U & Usman, M. (2018). Impact of financial leverage on firm performance of textile composite companies in Nigeria. *SEISENSE Journal of Management*, 1(2), 70-78.



- Kithandi, C. K. (2020). Financial leverage and financial performance of the energy and petroleum sector companies listed in the Nairobi Securities Exchange. *International Journal of Scientific and Research Publications*, 10(3), 559-566.
- Ma, Y. R., Qiu, J. Y., & Zhang, Y. M. (2017). Research on cross-industry of intellectual capital and an enterprise value of listed companies in China. *Journal of Central South University (Social Science)*, 23(5), 85–94.
- Maina, S. N. (2017). *The relationship between liquidity and the profitability of commercial banks in Kenya*. Master's thesis, University of Nairobi]. <http://hdl.handle.net/1195/1313>.
- Močnik, D. & Širec, K. (2015). Determinants of a fast-growing firm's profits: Empirical evidence for Slovenia. *Annals of the Alexandru Ioan Cuza University-Economics*, 62(1), 37-54.
- Nyaoga, T., Tarus, W. & Bagwet, J. (2014). Board characteristics and firm performance. Empirical Evidence, *Journal of Research in Business and Management*, 2(6), 28-34.
- Ogbeide, S. O. & Obaretin, O. (2018). Corporate governance mechanisms and tax aggressiveness of listed firms in Nigeria. *Amity Journal of Corporate Governance*, 3(1), 1-12.
- Omenyo, D. M., & Muturi, D.O. (2019). Effect of firm size on firms' performance of manufacturing firms listed on the Nairobi Stock Exchange. *The Strategic Journal of Business and Change Management*, 6(4), 1112 – 1119.
- Oyelade, A. O. (2019). The impact of firm size on firm performance in Nigeria: A comparative study of selected firms in the industry in Nigeria. *Asian Development Journal of Education Research*, 7(9), 211 – 218.
- Peter, Z., Hamid, T. K. & Ibrahim, M. (2020). Board attributes and tax planning of listed non-financial companies in Nigeria. *International Journal of Accounting and Finance*, 9(1), 130 – 146.
- Sanyaolu, W. A., Adejumo, B. T. & Kadiri, I. (2020). Board diligence and financial performance: Evidence from Nigerian deposit money banks. *Copernican Journal of Finance and Accounting*, 9(2), 145 – 159.
- Sardo, F. & Serrasqueiro, Z. (2018). Intellectual capital, growth opportunities, and financial performance in European firms: Dynamic panel data analysis. *Journal of Intellectual Capital*, 19(4), 747-767.
- Shimenga, M. A., & Miroga, J. (2019). Influence of financial leverage and liquidity on the financial performance of manufacturing firms listed at the Nairobi Securities Exchange. *The Strategic Journal of Business & Change Management*, 6(2), 799 –814.
- Swagatika, N., & Ajaya, K. P. (2018). The determinants of corporate profitability: An investigation of Indian manufacturing firms. *International Journal of Emerging Markets*, 13(1), 66-86.
- Taqi, M., Khan, R. & Anwar, I. (2020) Financial leverage and profitability: Evidence from oil and gas sector of India. *GIS Business*, 15(4) 665-587.
- Usman, M., Akhter, W., & Akhtar, A. (2015). Role of the board and firm performance in determination of CEO compensation: Evidence from Islamic republic of Pakistan. *Pakistan Journal of commerce and social science*, 9(2), 641-657.
- Vintilă, G. & Duca, F. (2015). Does firm size affect the firm profitability? Empirical evidence from Romania. *Romanian Statistical Review Supplement*, 61(4), 87-92.



- Xu, J., & Li, J. S. (2019). The impact of intellectual capital on SMEs' performance in China: Empirical evidence from non-high-tech vs. high-tech SMEs. *Journal of Intellectual Capital*, 20(4), 488–509.
- Xu, J., & Liu, F. (2020). The impact of intellectual capital on firm performance: A modified and extended VAIC model. *Journal of Competitiveness*, 12(1), 161–176.
- Xu, J. & Liu, F. (2021). Nexus between intellectual capital and financial performance: An investigation of the Chinese manufacturing industry. *Journal of Business, Economics and Management*, 22(1), 217 – 235.
- Xu, J., & Sim, J. W. (2017). Are costs really sticky and biased? Evidence from manufacturing listed companies in China. *Applied Economics*, 49(55), 5601–5613.
- Xu, J., & Wang, B. H. (2018). Intellectual capital, financial performance and companies' sustainable growth: Evidence from the Korean manufacturing industry. *Sustainability*, 10(12), 46-51.
- Xu, Q. H. (2017). Effects of intellectual capital and its structure on business performance: An empirical analysis based on the information technology industry. *Journal of Shandong University of Finance and Economics*, 29(4), 32-40.
- Yu, P., & Van-Luu, B. (2016). Bank performance and executive pay: Tournament or teamwork. *Review of Quantitative Finance and Accounting*, 47(3), 607-643.