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The Relationship between Corporate Governance and Organizational Performance in Nigerian Companies

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2017

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The growing lack of confidence in public companies arises from the recent accounting scandals and corporate collapses, which have been attributed to the consequences of separation of ownership and control in modern firms. Agency theory predicts a conflict of interest between managers and shareholders that leads to agency costs and weak performance. This study used agency, stakeholders', and stewardship theories as the theoretical framework and multiple regression analysis to examine the relationship between corporate governance mechanisms and organizational performance in nonfinancial firms listed on the Nigerian Stock Exchange. The results of the study could help clarify understanding of corporate governance to managers, investors, and regulators who seek to understand how corporate governance impact firms' performance. In this study, corporate governance mechanisms included board independence, audit committee independence, board size, number of board meetings, and executive compensation. The data were collected from the firms' published accounts on their websites and on the archives of the Nigerian Stock Exchange for a period starting from January 1, 2011 to December 31, 2015. The measures of financial performance in the study were return on assets, return on capital employed, and Tobin's Q. The study found a positive but not statistically significant relationship between corporate governance mechanisms and financial performance. This study has implications for positive social change by showing managers and other stakeholders of firms how a good corporate governance system assures investor confidence, employee loyalty and commitment, the reduction in conflict of interest and agency costs, and a strong financial performance.

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Dedication

I dedicate this work to the late sage, Chief Obafemi Awolowo, the former Governor of Western Nigeria, for his believe in equal access to education, knowledge, and progress. Without his program of free education in Western Nigeria in the 1950s and 1960s, I would have had no access to any form of formal learning.

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Finally, I thank members of my family for their perseverance, encouragement, and support for this program. My wife, Olayemi Omodeleola Toyin-Lasisi, bought dozens of statistics text books from the U.S. and brought them to me in Nigeria at considerable financial and personal costs. I also thank her for enduring many inconveniences when I attended residency and other programs.

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Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

Introduction

The need for effective corporate governance mechanisms in joint-stock companies arises from the separation of ownership from control. The owners of the company, the shareholders, employ managers as their agents to manage the business and take strategic and operational decisions in the interest of the firm and shareholders. Because the agents and owners are separate individuals and groups, the relationship between them often bring conflicts of interest. Whereas the managers are employed to maximize returns to shareholders and also look after the interests of all other stakeholders, they often pursue self-interest to the detriment of the financial interest of their principals (Haji, 2014; Smith, 2003). By using insider knowledge, managers of corporations could hide and use price-sensitive information to benefit themselves (Appuhami & Bhuyan, 2015; Liu, Valenti, & Chen, 2016).

Although the principal-agent problems in corporations have existed since the time of the industrial revolution, the attention of the business and political leaders around the world was drawn afresh to the insidious nature of this challenge facing business enterprises when the former energy giant, Enron, Inc., collapsed. Enron's bankruptcy destroyed shareholders' value and put many employees out of jobs (Liu, Miletkov, Wei, & Yang, 2015). Other high-profile

financial scandals and corporate collapses followed that of Enron with Waste Management, Parmalat, Lehman Brothers, and Global Crossing being a few of those that made headlines (Burnsed, 2009CITE). Researchers have suggested that the common thread that runs through the financial scandals and corporate dysfunctional behavior has its roots in weak corporate governance systems (Conyon & He, 2016; Ueng, 2016). The problem is also a result of incompetence, poor organizational culture, and leadership styles that are excessively focused on the short-term profit, excessive risk-taking, and the pursuit of self-interest by managers (Zona, 2016). O'Connor and Byrne (2015) and Rashid (2015) traced the problems in corporations to poor corporate governance systems and weak and ineffective enforcement of corporate governance standards by the board of directors

To ensure company directors are more transparent, adhere strictly to corporate governance standards, and are more accountable to shareholders, the U.S. government enacted the Sarbanes-Oxley (SOX) Act of 2002, following the collapse of Enron, Inc (Malthotra, Poteau, & Fritz, 2013). The objective of SOX is to protect present and potential investors and creditors of corporations by regulating the content, accuracy, and reliability of corporate disclosures in the financial statements (Dah, 2016). One of the most profound changes brought by the SOX is the establishment of the Public Companies Accounting Oversight

Board (PCAOB). The PCAOB has the mandate to (a) register all public accounting firms that audit public companies; (b) establish auditing, quality control, ethical, and independence attestation standards required of external auditors; (c) periodically assess the degree to which audit firms comply with the rules of the PCAOB and professional standards; and (d) establish procedures for investigating and disciplining registered firms and persons associated with them (SOX, 2002).

The SOX (2002) also requires public companies to ensure independent directors are in a majority on the boards of directors and to have audit committees composed entirely of independent directors. These provisions should ensure that governance mechanisms have the potential to reduce agency problems and enable the firms to function effectively (Baran & Forst, 2015). In line with the SOX, many countries have developed corporate governance codes and standards that aim to reduce agency costs, minimize corporate risk, improve firm performance, and reduce the incidences of corporate collapses (Bhagat & Bolton, 2013).

While laws like SOX and corporate governance codes developed by major stock exchanges may reduce managers' excesses, I will argue in this study that these mechanisms are necessary but not sufficient to eliminate agency problems in corporations. Regulators, the board of directors, and all stakeholders must be vigilant and continuously monitor the performance of their companies. Managers'

greed, self-dealing, and incompetence in managing other peoples' money are not new. According to James (2011), financial frauds have been occurring since 193 A.D. An example was the purported sale of the Roman Empire by the guard of the Emperor to an unsuspecting purchaser (James, 2013). James also documented many other financial hoaxes, like the Mississippi Scheme in 1719, when the Scottish financier, John Law, sold shares in a company that promised tremendous gains in gold and silver in what was, and remains, a swampy backwater. Then there was the original Ponzi scheme of 1920 by Charles Ponzi, in which investors lost money by engaging in purchases and sales of postal coupons while relying on Ponzi's exaggerated and unfounded claims of profit from the transaction (James, 201).

It would appear that investors did not learn any lessons from the original Ponzi scheme of 1920, or from any of the financial scandals before that case. In 1986, Barry Minkow swindled investors by selling shares in ZZZZ Best for a stock valuation of $200 million in a company worth only a fraction of that sum (James, 2011). Then in 2008, a bigger, modern-day Ponzi scheme took place in the United States: Bernard Madoff was accused and convicted by the federal authorities of running a Ponzi scheme and was also charged with money laundering (James, 2013). For his crimes, Madoff was sentenced to 150 years in prison (Burnsed, 2009).

As Burnsed (2009) also reported, many other corporate frauds and irregularities have been discovered after the passage of the SOX. Samuel Israel III led the Bayou group, a Stamford (CT)-based hedge fund that took $450 million from investors and diverted the money to private uses (James, 2013). The courts have also convicted many top management employees of insider trading and for hiding information on the losses they were making. Jerome Kerviel was a futures trader in Societe Generale Bank who incurred $8 billion loss without any express permission from his bosses (James, 2011). The case of Ivan Boesky and Michael Milken in 1986 is similar to that of Kerviel; the two traders were convicted and jailed for insider trading (James, 2011).

Tom Petters, who ran the Petters Group Worldwide in Minnesota, was indicted in 2008 for money laundering, conspiracy, and wire and mail fraud (James, 2011). Petters' scheme ran from 1995 to 2008 and involved false reports to investors that their money was being put to good use to buy and resell wholesale consumer goods (James, 2011). Investors of Petters Group Worldwide lost $1 billion (James, 2011). The incidences cited above indicate that the solution to financial scandals, especially the problem caused by the separation of ownership from control, require several tools and corporate systems to prevent, detect, and punish perpetrators of corporate crime. The individual leadership styles of the managers involved in the cases, the corporate governance

mechanisms in place, and the particular organizational culture existing in the corporations at the time, mostly predicted these outcomes.

In this study, I examined the impact of corporate governance mechanisms on the performance of nonfinancial firms listed on the Nigerian Stock Exchange. In the study, I covered all nonfinancial firms and excluded banks and other finance companies, such as hedge funds and unit trusts. The exclusion of firms in the financial industry wasimportant because these companies are highly regulated by the Central Bank of Nigeria and other government agencies. Firms in the financial industry follow the rules of the regulators, which are different from the rules and accounting procedures of nonfinancial corporations. In this study, I focused on 116 nonfinancial firms listed on the Nigerian Stock Exchange, and the data spanned 5 years from 2011 to 2015. Although several researchers have found a positive and significant association between organizational performance and corporate governance mechanisms, the results of the degree of impact of board characteristics and other corporate governance mechanisms on organizational performance have been mixed (Al-Saidi & Al-Shammari, 2015; Rashid, 2015). My objective in this study was to contribute to the present body of research by examining how firm size and age moderate the relationship between corporate governance and company performance generally, and particularly in Nigeria.

Background of the Problem

The industrial revolution, which began in England and then spread to the whole of Europe and North America, took place between the 18th and 19th centuries (Montagna, 1981). The revolution transformed a mainly agrarian, rural, and feudal society in Europe and America into cosmopolitan, industrial, and urban communities (Montagna, 1981). The owners of capital, the capitalists, replaced landowners and feudal lords as the primary source of wealth creation in the economy (Lewis, 1992). The proprietors of the new businesses employed the majority of the population to work in factories, mines, railroads, communications, and shipping industries, rather than farms (Lewis, 1992). The companies and businesses required enormous capital to finance them, which one inventor or entrepreneur may not have been able to supply. Without money to fund the new ventures, the industrial revolution would not have achieved the spectacular progress that has transformed peoples' life, conditions of living, and made available goods and services that are now ubiquitous all over the world.

The real revolution came when the English government introduced the concept of limited liability as a way to finance the new ventures. Individuals could invest in a company or venture without being involved in the day-to-day management of the business, and the only liability they have, should the business fail, is the obligation to pay any unpaid allotment on their shares (Smith, 2003).

For investing in the venture, the firms pay the investors dividends, and they are assured of capital growth if the venture succeeds (Smith, 2003). Although businesspeople could exploit the concept of limited liability to their advantage, such as the cases of the South Sea Company and the Mississippi Company that collapsed in 1720, the idea revolutionized corporate finance and gave both investors and business people the means to achieve their financial objectives (James, 2013).

Sadly, one of the unintended consequences of limited liability of a joint-stock company is the conflict of interest that arises between shareholders, who own the business, and managers, who are the agents that manage the enterprise. The conflict of interest is present in large firms due to the separation of ownership from control. The managers, who are expected to represent the interests of the shareholders, often engage in the pursuit of self-interest that hurt the owners. The managers can do this because they are in control of the firm's assets and resources, and they possess insider knowledge that the shareholders do not have. They often use the information to benefit themselves financially, or conceal value-destroying information from the shareholders to retain their employment and status, or to deliberately manipulate the firms' state of affairs to deceive the stockholders (Larcker & Tayan, 2013). The latter acts are the classic principal-agent problems that result in agency costs, the cost being borne entirely by the

equity owners, and by extension, all the other stakeholders such as bondholders, creditors, employees, the government, and the general public (Larcker & Tayan, 2013).

All things being equal, the shareholders should be better off if they formulate the corporate strategy, take all the critical decisions in the firm, and run the company on a daily basis (Smith, 2003). But in practice, especially for the large, publicly traded multinational corporations, it is neither possible, practicable, nor convenient for stockholders to run their own firms. As Larcker and Tayan (2013) stated, a business owner or a group of shareholders may add some control systems to deal with the principal-agent problems and reduce the agency costs that result from the conflict of interest between the managers and owners. Since the mid-1970s, this system of controls has come to be known as corporate governance (Larcker & Tayan, 2013). The controls might include inventory and risk management systems, internal auditing, independent external auditing, and the board of directors as a monitoring system (Lenard, Yu, & York, 2014). The board is the organ of the business and the representative of the shareholders in the company whose duties are to monitor the executive directors, offer counsel and advice to the managers of the firm, and determine the broad vision and strategies to guide the company to achieve its objectives (Adewuyi & Olowookere, 2013).

The term “corporate governance” formally entered the Federal Register, the official journal of the U.S. federal government, in 1976 (Cheffins, 2015). Before 1976, the America’s Securities and Exchange Commission (SEC) had begun to enforce corporate governance codes and bring erring managers to account (Cheffins, 2015). In 1974, the SEC sued three nonexecutive directors of Penn Central for misrepresentation of the firm’s financial condition and for inadequate oversight and failure to uncover various misconduct of the company’s top management (Cheffins, 2015).

In 1991 in the United Kingdom, the Financial Reporting Council, the London Stock Exchange, and the U.K. accountancy profession set up the Cadbury Committee, following numerous financial scandals and corporate failures (Cybinski & Windsor, 2013). The Committee was charged, among other things, to: (a) review the structure and the responsibilities of the board and recommend the code of best practice, (a) consider the role of auditors and make recommendations to the accountancy profession, and (c) highlight the rights and responsibilities of the shareholders (Badi, 2013). Many researchers and corporate executives see the recommendations of the committee as a landmark in corporate governance and company management.

Some of the most important recommendations of the Cadbury Committee are: (a) all quoted companies should comply with code of best practice in

corporate governance, and stock exchanges should get annual financial statements of listed companies with a statement of compliance with the standard; (b) the position of the chairman should be separated from that of the Chief Executive Officer (CEO), and if combined, there should be present in the company a powerful and independent nonexecutive director to serve as a counterweight to the power and influence of the CEO/board chair; (c) nonexecutive directors should be independent and of high caliber, with appropriate qualifications and industry experience to advice and monitor other directors without any conflict of interest; and (d) all the members of the nomination, audit, and remuneration subcommittees of the board should be composed of nonexecutive directors (The Cadbury Report, 1991). These recommendations have serious implications for company management. The recommendations have also been adopted by many company regulators across the world.

The Cadbury Committee also recommended the following: (a) the directors' total emoluments, the chairman's emoluments, and the remuneration of the highest paid director should be disclosed in the financial statements; (b) the audit report should state that the directors are responsible for the financial statements; (c) the financial statements should disclose the audit fees and other charges from nonaudit services rendered by the eternal auditors; (d) audit partners should be rotated at regular intervals; and (e) institutional investors should take

active part in company management (The Cadbury Report, 1991). By being active, investors could prevent abuses by the directors. Rotating audit partners periodically would ensure accountability and consistency in audit opinion.

The Cadbury Committee's report on the financial aspects of corporate governance has been publicly endorsed in the United Kingdom and incorporated in the listing rules of many stock exchanges around the world (Sun, Lan, & Ma, 2014). The recommendations are also the basis of several research and journal articles on corporate governance (Cybinski & Windsor, 2013). But corporate governance even predated the groundbreaking work on the subject by Berle and Means (1932). Legal scholars and economists have written about the problem that arises when ownership is separated from control. The problem and costs of agency existed at the time of the East Indian Company, the Hudson Bay Company, the Levant Company, and many of the companies chartered by the British government in the 16th and 17th centuries (Cheffins, 2015).

Concerns about managerial accountability, information asymmetry, equity in the distribution of a company's wealth, shareholders' rights, board structure, and many other matters concerning the internal governance of a large firm can be traced to the time of industrial revolution. Nevertheless, despite the recognition of the problems caused by the separation of ownership from control, management experts have not found a definitive solution to the problem, nor have they found a

better alternative to the corporate form of limited liability through joint-stock ownership. Years of research, legislation, and implementation of codes of corporate governance have not prevented serious corporate misdemeanor and financial recklessness (Muller-Kahle, 2015).

According to *The Economist*, the last known American corporate disaster was that of Lehman Brothers in 2008, which caused severe financial problems around the world and also led to the passage of Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010(*The Economist*, 2016). But that was before the case of Valeant, a Canadian drug company listed on the New York Stock Exchange, which has all the ills that plagued Lehman: A huge debt burden, poor corporate governance practices, a weak board, managers with an entitlement mentality, bad acquisitions, bad corporate information management and a culture of evasiveness, and severe accounting problems (*The Economist*, 2016). *The Economist* estimated that the loss to shareholders will be up to $75 billion, and the company may default on its $31 billion debt (*The Economist*, 2016. The lessons from the company's problems are that boards matter in corporate management, the influence of institutional investors may have been overrated, and the importance of monitoring professional managers is ever present in any corporation.

The emission scandals in Volkswagen (VW), a German carmaker, is another case that indicates agency problems are deep-rooted in firms and that there is a need to monitor and supervise the top management of companies by an active and independent board. According to Hans-Dieter Potsch, VW's Chairperson of the Supervisory Board, the decision to cheat on emission standards was made over 10 years before U.S. regulators detected the fraud (Ewing, 2015). That decision has dented VW's image as a reliable carmaker and has resulted in the recall of 11 million vehicles (Ewing, 2015). According to the chairperson, some top managers in the company made the decision that VW should be the dominant carmaker in the world, but they set out to achieve this objective by cheating on emission standards (Ewing, 2015). There was a tolerance for breaking rules in VW, a culture of poor communication among employees, and a prevailing climate of fear (Ewing, 2015).

VW's scandal and the reasons adduced for them show the complexity of corporate governance and how challenging it is to achieve effective internal management in many corporations. As Larcker and Tayan (2013) stated, the board of directors needs to experiment with several tools and focus on the best that achieve the desired objectives. In aligning the interests of shareholders and managers, directors could use incentive-based motivations, such as remuneration that include performance bonuses, or lay more emphasis on a corporate culture of

fairness, ethical behavior, and doing the right things at all times. Another emphasis could be on leadership styles that encourage openness, transparency, moral uprightness, and truthfulness. What works sometimes depends on firm-specific contexts. Nevertheless, the board must actively monitor and supervise managers. Board structure, the independence of the audit committees, regular attendance at meetings, the power and effectiveness of other committees, and independent and competent external directors are the key ingredients in corporate governance practices (Annuar & Rashid, 2015).

In this study, I examined board characteristics and the role of audit committees and executive compensation on corporate performance. But as I argued above, fraud and financial scandals still take place despite implementation of corporate governance codes and even after the passage of SOX. I examined the association between five corporate governance characteristics and organizational performance. The characteristics of the board and other corporate governance mechanisms that were hypothesized to impact corporate performance in this study are board independence, audit committee independence, executive compensation, number of board meetings, and the size of the board. The performance metrics were return on assets (ROA), return on capital employed (ROCE), and Tobin's Q. There were two mediators, and these were the age and size of the firm.

Statement of the Problem

Company stakeholders are concerned about firm governance due to recent financial distress in many large corporations (Lin, Hutchinson, & Percy, 2015). Researchers have argued that the high rate of collapses in firms is an outcome of weak corporate governance practices (Palmrose, 2013). Management scholars continue to examine the association between corporate governance and long-term financial performance (Conyon & He, 2016). The general problem was that there is no agreement among researchers on the extent of the relationship between corporate governance and organizational performance (O'Connor & Byrne, 2015). The consequence of the inconsistency in the research findings is that corporate managers do not know, and may not be able to implement, best practices in corporate governance (El-Faitouri, 2014). The specific problem was that in Nigeria, company leaders have insufficient knowledge of how corporate governance practices affect organizational performance and the benefits of improving corporate governance systems.

Purpose

The purpose of this quantitative correlational study was to examine the statistical relationship between corporate governance mechanisms and firm performance in 116 nonfinancial companies listed on the Nigeria Stock Exchange. The independent variables were corporate governance mechanisms, defined as (a)

independence of the board, (b) independence of the audit committee, (c) executive compensation, (d) number of board meetings, and (e) board size. The dependent variable was firm performance, defined as the ROA, ROCE, and Tobin's Q. There were two mediators. The first was the size of the corporation and the second was the age of the firm. The size of the firm was measured by the natural logarithm of total assets and age was the number of years since incorporation. I tested the relationships between these variables with the quantitative paradigm approach, using multiple regression analysis methods to analyze the data.

Significance of the Study

This study has the potential to make a positive social change in company management by clarifying the importance of corporate governance practices in corporations' organizational performance. The insights gained from this study may provide investors, financial analysts, and regulators with early warning signals of potential problems in an organization and aid stakeholders in assessing corporate performance. The results of this study could also help corporate managers to use organizational resources more effectively by understanding the important variables that affect their firms' long-term financial performance. Regulators in Nigeria may also benefit from the findings of this study by recognizing important corporate governance mechanisms that promote organizational effectiveness and the country's economic growth.

Significance to Theory

The results of this inquiry can provide insights into the factors that are decisive in predicting organizational performance from a combination of corporate governance mechanisms that affect a firm's efficiency and the effectiveness of resource utilization. Many research studies have been conducted with a view to finding the correlation between corporate governance components and firm performance. The results of this study will contribute to the body of research by examining whether the size and age of the firm mediates the relationship between each of the corporate governance mechanisms and firm performance.

Significance to Practice

The insights gained from this study may provide investors, financial analysts, and regulators with early warning signals of potential problems in an organization and also help stakeholders in their assessment of corporate performance. The study could also help corporate managers to use organizational resources more effectively by devoting more resources to the most important factors that are critical to financial performance. Business organizations are important engines of growth in many communities, and their continued growth is essential for the growth of the national economy. Companies are important forces for social change and improvement in their performance will ensure better employment prospects and increase in the welfare and wellbeing of individuals and the whole society.

The results of this study may also be of benefit to present and potential investors and top managers of firms in Nigeria by showing the impact of board characteristics on the performance of their companies. The findings may help these stakeholders to restructure their board and audit committees to become a more focused and efficient monitoring tool. By applying the study's recommendations, the board of directors of listed companies in Nigeria may institute better strategies to monitor the top management of their firms and thereby lower the company's agency costs, reduce investment risk, and enhance corporate value.

Significance to Social Change

With improved corporate governance structure, the board, on behalf of shareholders, should be able to monitor the business in a way that makes it more efficient and effective. A more proactive strategy of monitoring top executives by the board of directors would ensure that members of the board have adequate information to counsel managers and prevent risky, self-destructive behavior. Top managers will be reluctant to engage in transactions that could put the company at the risk when they know members of the board will ask questions. In Nigeria, rules are rarely obeyed and company failure and lackluster performance common. This happens because of the prevalence of crony capitalism and an informal way

of running business organizations where family connections sometimes trump meritocracy.

By showing the long-term benefits of a strong corporate governance structure on the firm's financial performance, the findings of the study may persuade both the board and top management to focus on merit and competency in recruiting top managers and on factors that align shareholders' interests with those of the agents. Also, by highlighting the positive outcomes of obeying rules and regulations, the board of directors and managers may be persuaded of the importance of effective corporate governance practices, the implementation of which would send a positive message to the market and improve firm value. Implementation of good corporate governance systems may also reduce staff turnover and lower the cost of funds, thereby improving organizational performance. Improvement in firm performance increases employment opportunities, returns to investors, and increased tax revenue for the government.

Background

In the following list are the selected articles relating to corporate governance and its impact on corporate performance:

Haβ, Johan, and Schweizer (2016) found that firms with effective corporate governance performed better than firms with weak corporate governance. Peng, Mutlu, Sauerwald, and Wang (2015) stated that a firm's good

performance in an earlier accounting period draws competent, independent directors into the firm. The presence of independent directors on the board of directors is one of the mechanisms of good corporate governance practices that could improve organizational effectiveness.

O'Connor and Byrne (2015) stated that what matters in corporate governance is not universal, and it is inappropriate to prescribe the same rules for all companies regardless of organizational culture and institutional setting in each country. They also found differences in corporate value resulted from differences in resource and governance functions.

Wu and Li (2014) found that in China, increases in board independence reduce the incidences of connected transactions and fraud, insider trading, and misuse of corporate assets by executives. The researchers also noted that uncertainties in a firm act as impediments to the effectiveness of board independence.

Shin, Sung, Choi, and Kim (2014) studied the impact of top management ethical contribution to firm-level ethical and procedural justice and firm performance, using the type of industry and size of the firm as mediating variables. This study also used the size and age of the firm as mediating variables.

Ioana and Mariana (2014) examined the relationship between corporate governance and firm performance, using multiple regression analysis to analyze

the data. The research found no significant relationship between the independence of the members of the audit committee and firm performance.

Mishra and Mohanty (2014) and Erkens and Matos (2012) investigated the impact of corporate governance on company performance and defined firm performance as ROA and ROCE. Mishra and Mohanty found that the better the corporate governance practices in firms in India, the better the firms' performance. Mishra and Mohantyalso found legal compliance has no effect on ROA but broad effectiveness and a proactive disclosure improves corporate performance.

Wahba (2015) found that where the CEO is also the chair of the board, increasing the number and proportion of nonexecutive directors to the total number of directors has a significant negative impact on firms' financial performance.

Muller-Kahle (2015) found that although ownership ought to provide an incentive to shareholders to monitor their investments in the firm, in practice this may not be so because large shareholders may not have the same objectives as the company. Muller-Kahle also found that firm performance is negatively and significantly influenced by CEO-dominant owners. Dominant owners with conflict of interest negatively affect firm performance than those who had no business ties with the firm before purchasing their investment.

Jermias and Gani (2014) found a negative and significant association between the number of board and audit committee meetings and firm performance in the listed companies in Standards and Poors (S&P) 500 databases between 1997 and 2004.

O'Connor and Byrne (2015) stated that what matters in corporate governance is not universal, and it is wrong to prescribe the same rules for all companies to follow regardless of history, size, and organizational culture and institutional setting in each country.

Theoretical Framework

The theoretical framework of this study was based on three theories of corporate governance: (a) agency theory, (b) stakeholder theory, and (c) stewardship theory. Agency problems arise due to the separation of ownership from control in large corporations. The separation leads to imperfect alignment between the interests of the principal, who are the shareholders, and the managers, who are the agents that manage the business on a daily basis (Fama, 1980). As Smith (2003) observed, managers should not be expected to devote as much attention and dedication to the objectives of the firm as shareholders. A conflict of interests between the shareholders and managers leads to suboptimal performance of the firm (Xie & Fukumoto, 2013).

Some of the self-interested attitudes of managers that are manifestations of the conflict of interest include compensation that is not commensurate with performance and the practice of taking excessive risks because of short-term gains at the expense of future growth (Sila, Gonzalez, & Hagendioff, 2016). Other self-interest actions of managers are a pay-for-performance compensation that motivates managers to focus on the short-term and the use of the firms' resources to fend off takeover battles that may be in the interest of the shareholders (Hiebl, 2015). It is reasonable to expect that better pay and commensurate compensation to top executives may lead to better alignment of the interests of the shareholders and managers, but this may not be so in many corporations. Baulkaran (2014) stated that adequate compensation to executives leads to a much closer alignment between the interest of the shareholders and the top management. The company must also find a way to compensate top management for the value they have added to the company through devices such as share ownership, profit sharing, and stock options.

According to the agency theory, the aim of corporate governance mechanisms is to ensure that managers are monitored and controlled by the board (Ueng, 2016). To be effective, the board would establish those corporate governance mechanisms that align the interests of shareholders and managers. Other theories beside the agency theory are part of the theoretical underpinnings

of corporate governance. By merging both the stewardship and stakeholder theories with the agency theory, it is possible for a researcher to have a complete theoretical justification for corporate governance as a basis for evaluating organizational performance (Almadi, 2015; Isidro & Sobral, 2015; Poutziouris, Savva, & Hadjielias, 2014).

The agency model is based on a narrow view of contractual relationships, whose underlying philosophy is internally driven (Francis, Hassan, & Wu, 2013; Krafft, Ou, Quatraro, & Ravix, 2013). The stakeholder theory's worldview is a much broader and based on an externally-focused model as it considers the interests of shareholders, employees, clients, suppliers, strategic partners, and other groups that have connections with the firm (Rashid & Islam, 2013). Some researchers have stated that the notion of considering the interests of all stakeholders might have been extended to an impracticable extent, and it is important for corporate managers and practitioners to know where to draw the line (Arenas & Rodrigo, 2016). Managers must have an idea of the persons or groups who will be affected by their decisions

One argument of stakeholder theory is that a firm draws resources from the environment and ought to be responsible for the preservation of it for the present, incoming, and future generations. But the question is whether future generations can be considered as stakeholders (Arenas & Rodrigo, 2016).

Whether or not future generations are so considered, the question of fairness and equity in the use of resources is a fundamental one. It is difficult to determine the identity of future generations and what is a fair allocation to them out of a firm's resources. The solution offered by Arenas and Rodrigo (2016) was to consider future generations as the direct descendants of the present stakeholders, out of whom the firm will get future employees, customers, and managers.

Research has shown the benefits to businesses of having a broader view of participants in the corporate entity. Mande and Rahman (2013) found a positive and significant association between a good relationship with stakeholders and firm performance. To gain the benefits that come with looking after the interests of all stakeholders in a company, managers need to keep them informed about the affairs of the company by giving timely and accurate information (Sendjaya, Pekerti, Hartel, Hirst, & Butarbutar, 2016). All employees and, most importantly, managers must at all times think how their actions and decisions affect every stakeholder in the organization (Sendjaya et al., 2016). If the board and management consider the interests of all stakeholders in the firm in their policies, the conflict of interest between the shareholders and managers is likely to reduce.

The third theory of corporate governance that forms the theoretical framework for this study is the stewardship theory. The stewardship theory emphasizes that the manager is committed to the long-term goals of the

organization instead of the steward's self-interests (El-Faitouri, 2014). There are thus little mechanisms that need to be put in place to ensure corporate objectives are achieved (Hiebl, 2013). The savings in agency costs when managers imbibe the philosophy of a steward instead of that of an agent should improve organizational performance. Perhaps the best test of the differences between the attitudes of agents and stewards is the actions of managers during takeover battles (Mishra & Mohanty, 2014). Agents tend to frustrate merger talks using strategies like poison pills and issuing of new shares (Mishra & Mohanty). The new shares may be issued to the managers' favored bidder at considerably lower price than what the hostile bidders are offering (Mishra & Mohanty). Stewards will not only present truthful information to the decision-makers but work also in the overall interests of the organization (Dah, 2016).

Many researchers have concluded that the stewardship theory is yet to be accepted as a basis for analyzing organizational dynamics. There are various benefits for using the theory to methodically examine organizations:

The adoption of the theory is likely to ensure a mutually beneficial relationship between managers and shareholders, based on trust and cooperation (Dah).

As stewards are motivated by a higher order of needs, such as self-esteem and self-actualization, they are likely to work for the long-term interests, survival,

and sustainable performance of the organization. The benefits of the stewardship model will also accrue to all stakeholders (Mishra & Mohanty).

By emphasizing a different model of the economic person who is motivated only by self-interest, imbibing the stewardship theory ensures a corporate atmosphere where decision-making is simplified and easier than in a pure agency relationship. Information asymmetry and moral hazard that make decision-making difficult are not present when the central philosophy of management is to serve as stewards of the organization (Pouziouris, Savva, & Hedjielias, 2014).

In this study, I developed a theoretical framework that predicts the relationships between corporate governance mechanisms and organizational performance in nonfinancial companies in Nigeria. The framework was based on the relationship between board independence, audit committee independence, executive compensation, number of board meetings, and board size and organizational performance, using size and age of the firm as mediators. Organizational performance was measured using three variables: ROA, ROCE, and Tobin's Q. The age of the firm was the number of years since incorporation and size was the natural logarithm of total assets. The theoretical framework is shown in Figure 1.

The proposed theoretical framework is shown in figure 1.

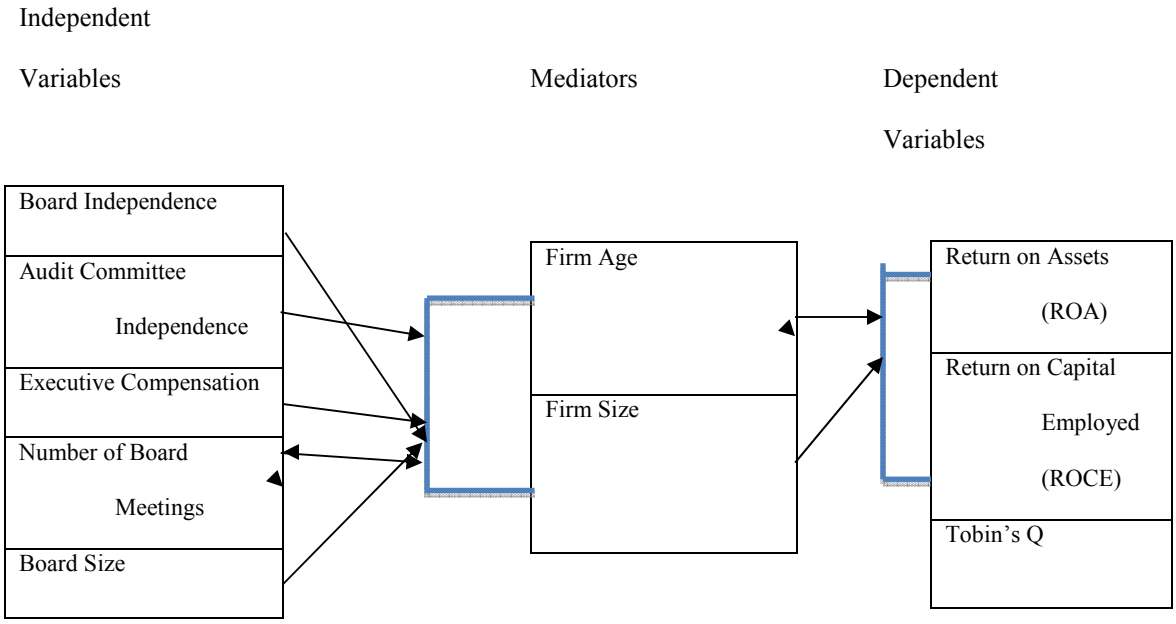

Figure1.The proposed theoretical framework for testing the relationship between corporate governance mechanisms and organizational performance in Nigerian companies

Research Questions

Researchers frequently ask questions to understand and interpret observed phenomenon (Babbie, 2013). To examine the relationship between corporate governance and organizational performance, the research questions (RQs) that guided this study were as follows:

RQ1: Is there a statistically significant association between corporate governance and financial performance of publicly quoted companies in Nigeria?

RQ2: Is there a statistically significant association between board independence and financial performance of publicly quoted companies in Nigeria?

RQ3: Is there a statistically significant association between audit committee and financial performance of publicly quoted companies in Nigeria?

RQ4: Is there a statistically significant association between executive compensation and financial performance of publicly quoted companies in Nigeria?

RQ5: Is there a statistically significant association between the number of board meetings and financial performance of publicly quoted companies in Nigeria?

RQ6: Is there a statistically significant association between board size and financial performance of publicly quoted companies in Nigeria?

RQ7: Does the size of the firm mediate the relationship between corporate governance and financial performance of publicly quoted companies in Nigeria?

RQ8: Does the age of the firm mediate the relationship between corporate governance and financial performance of publicly quoted companies in Nigeria?

Research Hypotheses

According to Frankfort-Nachmias and Nachmias (2008), hypothesis testing consists of two statistical hypotheses. The first is the research hypothesis,

usually designated by H_1. The second is the null hypothesis, which is symbolized by H_0. H_1 is what the researcher wants to know. H_0 is, by implication, the antithesis of H_1 (Frankfort-Nachmias & Nachmias, 2008). In this study, I tested the following hypotheses by the stated theories and literature on the relationship between corporate governance mechanisms and organizational financial performance:

$H_0$1: There is no statistically significant relationship between corporate governance and organizational financial performance in listed companies in Nigeria.

$H$1: There is a statistically significant relationship between corporate governance and organizational financial performance in listed companies in Nigeria.

$H_0$2: There is no statistically significant relationship between board independence and organizational financial performance in listed companies in Nigeria.

$H$2: There is a statistically significant relationship between board independence and organizational financial performance in listed companies in Nigeria.

$H_0$3: There is no statistically significant relationship between audit committee independence and organizational financial performance in listed companies in Nigeria.

*H*3: There is a statistically significant relationship between audit committee independence and organizational financial performance in listed companies in Nigeria.

$H_0$4: There is no statistically significant relationship between executive compensation and organizational financial performance in listed companies in Nigeria.

*H*4: There is a statistically significant relationship between executive compensation and organizational financial performance in listed companies in Nigeria.

$H_0$5: There is no statistically significant relationship between the number of board meetings and organizational financial performance in listed companies in Nigeria.

*H*5: There is a statistically significant relationship between the number of board meetings and organizational financial performance in listed companies in Nigeria.

$H_0$6: There is no statistically significant relationship between board size and organizational financial performance in listed companies in Nigeria.

*H*6: There is a statistically significant relationship between board size and organizational financial performance in listed companies in Nigeria.

$H_0$7: Firm size does not significantly mediate the relationship between corporate governance and organizational financial performance in listed companies in Nigeria.

*H*7: Firm size significantly mediates the relationship between corporate governance and organizational financial performance in listed companies in Nigeria.

$H_0$8: Firm age does not significantly mediate the relationship between corporate governance and organizational financial performance in listed companies in Nigeria.

*H*8: Firm age significantly mediates the relationship between corporate governance and organizational financial performance in listed companies in Nigeria.

Nature of the Study

This study was a quantitative correlational study. There are three types of research design in any scientific inquiry: Qualitative, quantitative, and mixed methods. If the aim of the research is to explore and understand the corporate governance phenomenon, the qualitative method of inquiry is suitable, as it does not aim at finding a statistical relationship between corporate governance and

organizational performance. The main drawback of the qualitative method is that the research findings cannot easily be replicated or generalized to other organizations, groups, or people (Frankfort-Nachnamias & Nachnamias, 2008). This study was not a qualitative inquiry.

In a quantitative research design, the researcher tests theories and hypotheses that have been formulated from the literature and research questions (Leedy & Ormrod, 2010). Quantitative research methods include experimental, quasi-experimental, correlational, and survey research methods. In experiments, researchers manipulate the subjects and observe the effect on them (Babbie, 2013). The advantage of experimental design is the researcher's ability to isolate the effect of other variables, and find a cause-and-effect relationship between them (Babbie, 2013). Experimental research is also fairly easily replicable and generalizable. The experimental design suffers from the fact that the research is conducted under artificial conditions, which may not reflect what happens in a natural environment and the society at large. An experimental design was not suitable for the present topic as none of the variables can be manipulated, and the research cannot be conducted in an artificial laboratory.

A quasi-experimental design, like the experimental design, was also not suitable for this study because quasi-experimental designs are used when the researcher cannot achieve true randomness, but can still manipulate some

variables (Leedy & Ormrod, 2010). In a quasi-experimental design, the researcher cannot control all extraneous variables and it is impossible to rule out other explanations for the findings. Quasi-experimental designs do not suffer from artificiality common to laboratory-controlled, pure experimental research design.

In this dissertation study, I used a type of quantitative research design method defined as a correlational study. In correlational studies, the researcher endeavors to find whether there is, and the strength of, a relationship between two or more variables (Leedy & Ormrod, 2010). According to Leedy and Ormrod (2010), correlational studies examine the degree to which changes in the characteristics of one variable is related to changes in the characteristics of one or more variables. The researcher cannot conclude that a cause-and-effect association is present between the variables just because they are statistically correlated.

A correlational study most suitable for the current inquiry, as my aim was to test the statistical relationship between corporate governance mechanisms and organizational performance in the listed companies in Nigeria. I chose correlational studies for the present inquiry after I had considered all other methods under the broad heading of descriptive quantitative research (Leedy & Omrod, 2010). A correlational research design is suitable for inquiries into the determinants of the performance of companies, which was the intent of this study.

This correlational design was used to examine whether there was a relationship between the chosen corporate governance components and organizational performance metrics in listed companies in Nigeria, and the strength of the relationship.

Possible Types and Sources of Data

In this study, I used data extracted from the published financial statements of the 116 nonfinancial companies quoted on the Nigerian Stock Exchange from 2011 to 2015 financial years. The published accounts and reports are available from the companies' websites and at the archive of the Nigerian Stock Exchange. The filings of the annual financial reports with the Nigerian Stock Exchange are mandatory because they are one of the listing requirements for all companies listed on the exchange. The financial statements contain information on the companies' income statement, financial position, principal activities, risk management system, operational procedures, and explanatory notes to the accounts. The information in the balance sheet and income statement of the report was used in computing ROA, ROCE, and Tobin's Q, the dependent variables in the study.

The financial statements also contained information on corporate governance mechanisms, which are the independent variables in this study; these are (a) board independence, (b) audit committee independence, (c) executive

compensation, (d) the number of board meetings, and (e) the board size. Also, the size of the firm was obtained from the balance sheet, which is the natural logarithm of total assets, and the age of the corporation, which is the time since incorporation, was reported in the corporate information section of the financial statements. The information obtained from the annual reports was organized into ratios, indexes, and scores. I extracted the information using content analysis method. According to Bonna (2012), content analysis method includes theoretical definitions, and statistical and objective analysis.

Analytical Strategies

The data analysis in this study was conducted using the Statistical Package for Social Sciences (SPSS) software to run several multiple regression analysis for each of the dependent variables against the predictor variables. Descriptive and inferential statistics was employed in the study. I used three alternative measures of performance; which are ROA, ROCE, and Tobin's Q. While both ROA and ROCE are accounting ratios and measure a firm's historical performance, Tobin's Q is a market-based measure and is an indication of the company's future performance. The emerging markets, from where I conducted this study, suffer from pricing inefficiencies and high volatility in the pricing of stocks. Emerging markets, such as Nigeria, also suffer from hyperinflation, inadequate information management systems, and financial illiteracy among

investors. It is important to use alternative performance measures, which in this study are the accounting ratios of ROA and ROCE.

I used several alternative model specifications to examine the effect of corporate governance mechanisms on the performance of companies. The first model specification tested the overall impact of corporate governance on firm performance. The other models tested the association between each component of corporate governance and firm performance. Two other model specifications tested whether firm age and company size mediate the relationship between corporate governance and firm performance. The first of the model specifications that tested the first hypothesis, *H1*, is as follows:

$$OrgPerf = \alpha_0 + \beta_1 BodInd + \beta_2 AuditCommInd + \beta_3 BodSize + \beta_4 BodMtgs + \beta_5 ExecComp + \beta_6 FirmAge + \beta_7 FirmSize + \varepsilon \quad (1)$$

Where OrgPerf is firm performance measured ROA, ROCE, and Tobin's Q. BodInd is board independence, defined as the proportion of directors that are independent and whether the positions of the CEO and the chairperson of the board are combined in one person. Where the two positions are combined in one executive, there is the presence of CEO duality. I measured board independence on a 5-point Likert scale, where 1 equals the presence of CEO duality and less than 50% of board members are independent, 2 is presence of CEO duality, and exactly 50% of board members are independent, 3 is the presence of CEO duality

and more than 50% of board members are independent, 4 is absence of CEO duality and less than or exactly 50% of board members are independent, and 5 equals the absence of CEO duality and more than 50% of the board members are independent. A high score indicates more independence while a low score means less independence of the board of directors.

AuditCommInd is the independence of the audit committee, defined as the proportion of independent directors on the committee and their freedom to communicate directly with the chief internal auditor of the firm without express permission of the CEO. Audit committee independence was measured on a 5-point Likert scale, where a score of 1 equals independent members of the committee is less than 50% and without the freedom to communicate directly with the chief internal auditor, a score of 2 equals independent members of the committee is exactly 50% of the total members without the freedom to communicate directly with the chief internal auditor, 3 indicates independent members are greater than or equal to 50% but the committee lacks the freedom to communicate directly with the chief internal auditor, 4 equals more than 50% of the members are independent without the freedom to communicate directly with the chief internal auditor, and 5 equals more than 50% of the members are independent with the full freedom to communicate directly with the chief internal auditor.

BodSize is the total number of directors on the board, including the chairman, the executive and nonexecutive directors, and the CEO. Following a review of the literature, I adopted the view that larger boards enhance better firm performance, although some studies indicated otherwise (Lenard, Yu, & York, Leung, Richardson, & Jaggi, 2014; Sun, Lan, & Ma, 2014). A 20-member board was scored 20, a 19-member board was scored 19, and an 18-member board was scored 18, and so on. None of the quoted companies in Nigeria, according to the filings of the companies with Nigerian Stock Exchange, had more than 20 members on the board of directors. A high score indicates a strong corporate governance system while a low score indicates a weak corporate governance practice.

BodMtgs is the number of board meetings, measured by the actual number of board meetings that took place in a year where a quorum was formed. A firm that holds one board meeting in a year was scored 1, two board meetings was scored 2, three board meetings was scored 3, four board meetings was scored 4, and so on. The frequency of board meetings are important since the directors deliberate on and take major strategic decisions at the meeting, including decisions on investment, sale of a major unit, mergers and acquisitions, appointment of directors, approval of strategic plans, and consideration of audit and other committees' reports. In Nigeria, the SEC code of corporate governance

states that a minimum of four meetings in a year is mandatory, i.e. one in a quarter. The frequency of the meetings may indicate the level of involvement of the directors in the business or it may signal a problem in the organization (Alves, Cuoto, & Franscisco, 2016; Jernias & Gani, 2014).

ExecComp is the executive compensation; measured by the total payments to the executive in terms of salary, wages, benefits, and other perquisites, plus the value of non-monetary benefits enjoyed by them. The Companies and Allied Matters Act of 1990 in Nigeria makes it mandatory that the financial statements of corporations disclose money wages and other benefits accruable to directors and executives. FirmAge is the age of the corporation, measured by the number of years since incorporation; FirmSize is the size of the firm, measured by the natural logarithm of total assets; α_0 is the intercept of the model; β_1 to β_7 are the beta coefficients of the regression; and ε is an error term.

The other models that tested Hypotheses 2 to 9 are as follows:

$$ROA = \alpha 1 + \beta_8 BodInd + \beta_9 AuditCommInd + \beta_{10} BodSize + \beta_{11} BodMtgs + B_{12} Execomp + \beta_{13} FirmAge + \beta_{14} FirmSize + \varepsilon \quad (2)$$

$$ROA = \alpha_1 + \beta_8 BoardInd + \varepsilon \quad (3)$$

$$ROA = \alpha_1 + \beta_9 AuditCommInd + \varepsilon \quad (4)$$

$$ROA = \alpha_1 + \beta_{10} BodSize + \varepsilon \quad (5)$$

$$ROA = \alpha_1 + \beta_{11}BdMtgs + \varepsilon \quad (6)$$

$$ROA = \alpha_1 + \beta_{12}Execomp + \varepsilon \quad (7)$$

$$ROA = \alpha_1 + \beta_{13}FirmAge + \varepsilon \quad (8)$$

$$ROA = \alpha_1 + \beta_{14}FirmSize + \varepsilon \quad (9)$$

$$ROCE = \alpha_2 + \beta_{15}BoardInd + \beta_{16}AuditCommInd + \beta_{17}BodSize + \beta_{18}BodMtgs + B_{19}Execomp + \beta_{20}FirmAge + \beta_{21}FirmSize + \varepsilon \quad (10)$$

$$ROCE = \alpha_2 + \beta_{15}BodInd + \varepsilon \quad (11)$$

$$ROCE = \alpha_2 + \beta_{16}AuditCommInd + \varepsilon \quad (12)$$

$$ROCE = \alpha_2 + \beta_{17}BodSize + \varepsilon \quad (13)$$

$$ROCE = \alpha_2 + \beta_{18}BdMtgs + \varepsilon \quad (14)$$

$$ROCE = \alpha_2 + \beta_{19}Execomp + \varepsilon \quad (15)$$

$$ROCE = \alpha_{2+} \beta_{20}FirmAge + \varepsilon \quad (16)$$

$$ROCE = \alpha_{2+} \beta_{21}FirmSize + \varepsilon \quad (17)$$

$$Tobin's\ Q = \alpha_3 + \beta_{22}BodInd + \beta_{23}AuditCommInd + \beta_{24}BodSize + \beta_{25}BodMgts + \beta_{26}Execomp + \beta_{27}FirmSize + \beta_{28}FirmAge + \varepsilon \quad (18)$$

$$Tobin's\ Q = \alpha_3 + \beta_{22}BodInd + \varepsilon \quad (19)$$

$$Tobin's\ Q = \boldsymbol{\alpha_3} + \beta_{23}AuditCommInd + \varepsilon \quad (20)$$

$$Tobin's\ Q = \alpha_3 + \beta_{24}BoardSize + \varepsilon \quad (21)$$

$$Tobin's\ Q = \alpha_3 + \beta_{25}BdMtgs + \varepsilon \quad (22)$$

$$\text{Tobin's Q} = \alpha_3 + \beta_{26}\text{Execomp} + \varepsilon \quad (23)$$

$$\text{Tobin's Q} = \alpha_3 + \beta_{27}\ \text{FirmAge} + \varepsilon \quad (24)$$

$$\text{Tobin's Q} = \alpha_3 + \beta_{28}\text{FirmSize} + \varepsilon \quad (25)$$

$$\text{FirmAge} = \alpha_4 + \beta_{29}\text{BodInd} + \beta_{30}\text{AuditCommInd} + \beta_{31}\text{BodSize} + \beta_{32}\text{BodMtgs} + B_{33}\text{Execomp} + \text{B34FirmAge} + \beta_{35}\text{FirmSize} + \varepsilon \quad (26)$$

$$\text{FirmSize} = \alpha_5 + \beta_{36}\text{BoardInd} + \beta_{37}\mu\text{AuditCommInd} + \beta_{39}\text{BodSize} + \beta_{40}\text{BdMgts} + \beta_{41}\text{Execomp} + \beta_{42}\text{FirmSize} + \varepsilon \quad (27)$$

Where, ROA is the return on assets; α_0 to α_5 are the intercepts of the model; ROCE is the return on capital employed; and Tobin's Q is the ratio of market value to the replacement cost of assets.

Other Information

The data collection and analysis for the dissertation study was undertaken in Nigeria, and covered all the 116 nonfinancial companies listed on the Nigerian Stock Exchange from 2011 to 2015 financial years. The criteria for selecting the firms were: (a) the sampled companies must have been listed for at least three years prior to 2011, (b) the firms must have at least four directors, (c) the corporation must report earnings before interest, taxation, amortization, and depreciation (EBITD) for the entire 5 years, (d) the market capitalization of each firm must be a minimum of $1 million, (e) the companies must have audited financial

statements filed with the Nigerian Stock Exchange for all the five years this study covered, and (f) the firm's financial statements must be published regularly as dictated by the rules of the Exchange. The selected firms also had history of compliance with corporate governance codes.

Financial and corporate governance data were obtained from the published financial statements of the companies from the archive of the Nigerian Stock Exchange and the companies' websites. The entire data collection process did not involve contact with any members of the society, as the study relied exclusively on collection of secondary data. Nevertheless, I was very careful with the data collected and the subsequent analysis and storage to prevent unauthorized usage. The data will be stored on my laptop as well as on mobile hard disks and thumb drives; all the storage devices will be password-protected. After the university approves the study, the mobile hard disks and thumb drives will be securely locked when not in use. Access to the data on the laptop will be restricted by the password and by the fact that the personal computer is not shared with anyone. I will keep the data for 5 years before destroying it. There will be no reference to the firms in my analysis and report of the findings. I will handle personally the downloading and extraction of data from the audited accounts and the computation of scores, ratios, and indexes.

Assumptions

The following assumptions underlined this dissertation study: The theoretical framework provided by agency, stakeholders, and stewardship theories are appropriate to examine corporate governance in publicly quoted firms in Nigeria. There is a logical relationship between corporate governance mechanisms and firm performance, and it is possible to develop hypotheses that can be tested statistically to examine the association between them

A study of corporate governance is an examination of a firm's internal governance structure and has implications for firm performance, returns to investors, the welfare of the employees, the performance of the stock market, and the health of financial system as a whole.

This study is based on all the 116 nonfinancial companies listed on the Nigerian Stock Exchange. All the listed financial institutions will be excluded from this study because they are under the regulation of the Central Bank of Nigeria and have different account and disclosure requirements dictated by the bank and other regulatory agencies. It is assumed that all the 116 non-financial companies prepared their financial statements under the International Financial Reporting Standards (IFRS) and before the country implemented the IFRS, the Nigerian Generally Accepted Accounting Principles (GAAP).

Four foreign auditing firms, Klynveld Peat Marwick Goerdeler (KPMG), Price Waterhouse, Deloitte, and Ernst & Young audit the great preponderance of quoted companies in Nigeria. Where a Nigerian audit firm audits a listed company's financial statements, it is mostly in a joint audit with the big four listed above. It is assumed that the external auditors, regardless of the auditor and the auditing firm, audited the financial statements by following international auditing standards and guidelines.

Scope and Delimitations

Scope

In this study, I focused on the impact of corporate governance on the financial performance of sampled nonfinancial companies listed on the Nigerian Stock Exchange. The independent variables selected for the study were five components of corporate governance mechanisms. These were: (a) the independence of the board of directors, (b) the independence of the audit committee, (c) executive compensation, (d) the number of board meetings in a year, and (e) the size of the board. Financial performance, the outcome variable, was measured by three metrics: (a) ROA, (b) ROCE, and (c) Tobin's Q. One hundred and seventy-one companies were quoted on the Nigerian Stock Exchange at the end of December 2015, 116 of them were nonfinancial firms. Those in the financial services industry are subject to a different accounting and procedural regulations, different

and distinct from those of other companies that are not licensed to take deposits from members of the public. This study was focused exclusively on the 116 nonfinancial firms who are not subject to the regulation from the central bank and other financial regulators.

The data for board characteristics and financial performance was obtained from the published financial statements filed with the Nigerian Stock Exchange. Other financial and non-financial information were obtained from the company's website. I made use of the companies' historical financial data in their published financial statements from 2011 to 2015. Research based on secondary data is common and widely used in social and other scientific inquiry, especially research on corporate governance and firm performance (e.g., Francis, Hassan, & Wu, 2013; Mehrotra, 2016; Muttakin, Monem, & Khan, 2015).

In this study, I used multiple regression analysis to test the association between corporate governance mechanisms and firm performance. Before analyzing the effects of the predictor variables on the outcome variables, I ran Pearson product-moment correlation coefficient to examine the relationships among all the variables (Mehrotra, 2016). The Pearson correlational analysis shows the size of the effect, whether small, medium, or large but without distinguishing between dependent and independent variables. Several regression analyses using ordinary least squares method was run to test the association and the strength of the relationship

between the independent and dependent variables. Multiple regression analysis indicates the relationship between the dependent and the independent variables and the percentage of the variation in the dependent variable that is explained by the variations in the independent variables.

Delimitations

This study examined the association between board characteristics and other corporate governance mechanisms and firm performance. The corporate governance mechanisms were board independence, audit committee independence, executive compensation, number of board meetings, and board size. There are many other board features and corporate governance mechanisms that were not examined in this study. Many researchers have identified the number and structure of the compensation committee, the number of meetings of the audit committee, director share ownership, and board diversity as equally important (Bonna, 2012, Kaczmarek, Kimino, & Pye, 2014; Mehrotra, 2016; Mishra & Mohanty, 2014; Perryman, Fernando, & Tripathy, 2016; Pugliese, Minichili, & Zattoni, 2014). The impact of these and other variables like them on firm performance was not examined in this study. This study examined the association between board characteristics and other corporate governance mechanisms and firm performance. The corporate governance mechanisms were board independence, audit committee independence, executive compensation, number of board

meetings, and board size. There are many other board features and corporate governance mechanisms that were not examined in this study. Many researchers have identified the number and structure of the compensation committee, the number of meetings of the audit committee, director share ownership, and board diversity as equally important (Bonna, 2012, Kaczmarek et al. , 2014; Mehrotra, 2016; Mishra & Mohanty, 2014; Perryman et al., 2016; Pugliese, et al.,2014). The impact of these and other variables like them on firm performance was not examined in this study.

To measure company performance, I used ROA, ROCE, and Tobin's Q. Other performance metrics have been used in the literature. For example, Zango, Kamardin, and Ishak (2016) examined the impact of corporate board committees, board accounting and financial expertise, and board gender on financial risk disclosure. Hong, Li, and Minor (2016) used compensation paid to executive to measure the degree of a firm's social performance. Similarly, Liu, Valenti, and Chen (2016) used information transparency to examine the impact of corporate governance on the performance of listed Taiwanese firms, using family ownership as the moderating variable.

Limitations

A major potential source of limitation in this study was the use of secondary data to obtain financial and corporate governance information. The accuracy of the

information from secondary sources could be a potential source of bias. The use of secondary data relied on the firms' published financial statements. Given that accounting scandals have been reported in many firms in recent times, some of the information on the financial statements may have been manipulated. Also, financial statements are prepared based on some underlying principles, conventions, concepts, and accounting policies. Lack of uniformity in the application of these accounting rules in many firms made comparison difficult. Also, specifically, Nigerian firms converted to IFRS in 2012, and many are still trying to perfect the system. Some of these issues may cause errors. The lack of information was also a problem. Some firms were excluded from the study because they did not have the required information for analysis. Secondly, if information were available, I would have made necessary adjustments to some accounting estimates and balances in the financial statements that could have been more accurately stated, such as the figures for inventory, current assets, long-term debt, and income and loss items.

To mitigate this bias, I gathered data from multiple sites: The companies' websites, the website of the Nigerian Stock Exchange, professional accountants' websites, and the website of the mass media. Data were collected at different points in time on the same phenomenon. The strategy of time and space data triangulation allows the researcher to discover what is common among the various data sources

(Kimchi, Polivka, & Stevenson, 1991). The approach of using several data sources and measurement in different periods would reduce the potential source of bias referred to above. Eliminating a source of bias enhances a researcher's ability to interpret results more accurately.

As at the end of the fourth quarter of 2015, 171 equities were quoted on the main board of the Nigerian Stock Exchange, with 55 firms in the financial services industries. The rest were 116 non-financial firms that represented this study's population. The nonfinancial firms listed on the Nigerian Stock Exchange are into manufacturing; hotels and tourism; energy, equipment, and services; petroleum products distribution; apparel retailers; courier, freight, and deliveries; road transportation; and services.

Some of the nonfinancial companies were not selected for the following reasons: (a) Their quotation history at the stock exchange was less than three years before 2011, (b) they had less than four directors, (c) their total market capitalization was less than $1 million throughout the years of analysis, (d) there were no audited financial statements covering all the 5 years of analysis that complied with, or (e) the firms did not comply with the listing rules of the stock exchange to file financial and other statements with the exchange. The exclusion some of these firms from the study may introduce bias as the study will consider corporations that are active in the market, have a solid history of trading, and have financial

statement that meet global best practices. The companies selected may be the ones that already have strong corporate governance structures and tradition, thus biasing the findings. Some of the assumptions may also not be accurate, which may cause errors and difficulties in the interpretation of results. The use of well-tested scales, recognized statistical models, and a highly regarded software package in the study address some of these potential sources of bias.

This study was designed as a quantitative, correlational inquiry to examine the impact of corporate governance mechanisms on firm performance. The fact that not all the companies listed on the Nigerian Stock Exchange were included in this research was a source of bias. Another related potential bias concerned the exclusion of some corporate governance components and measures of firm performance. The exclusion of some of these variables and companies not included in the sample may affect the extent to which the result of the study can be generalized, even in the same industrial sector. I have selected what I believe were the relevant variables for the study of corporate governance in Nigeria, and I have chosen measures of firm performance that are not only widely used, but that are popular with investors, analysts, regulators, and managers as predictors of organizational financial performance. Future researchers in Nigeria on the same subject may extend this work by making other assumptions and including more companies and

selecting financial performance metrics and corporate governance mechanisms that are peculiar to nonfinancial firms.

Definition of Terms

Audit: An independent examination, on a test basis, of the accounting records of a firm by an appointed external auditor (El-Faitouri, 2014).

Audit committee: A committee of the board composed mainly of independent directors that monitor the reports of external auditors and ensure the management follows auditors' recommendations (Dalwai, Basiruddin, & Rasid, 2015)

Board independence: The percentage of nonexecutive directors that are members of the board of directors (Adewuyi & Olowookere, 2013; Leung et al., 2014). A board that is composed mostly of executive directors is not perceived as an independent board.

Board leadership structure: It is the division of the leadership of the board of directors between the chairperson and the CEO. If an individual combines both positions, the board structure is perceived not to be independent and to exhibit CEO-duality (Kouki & Guizani, 2015). The determinants of board size and independence: Evidence from China.

Board meetings: It is the formal gathering together of board members where the business of the company is considered after a quorum has been established by an appointed company secretary and the deliberations and decisions of the meeting recorded in

a minutes of meetings book under the care of the secretary to the board. The board is the organ of the firm and board meetings are the place where board power is exercised (Alves, Couto, & Francisco, 2016; Jermias & Gani, 2014).

Board size: This is the number of people that are on the board of directors of a company, including the chair, CEO, and the executive and nonexecutive directors (Lenard et al., 2014; Sun et al., 2014).

Committees: Members of the board that are charged to carry out specific duties on behalf of the board and report their stewardship to the whole body of the members. There are many committees the board can form, both standing and ad hoc committees. Some of the important ones affecting corporate governance are compensation, audit, employment and general purposes committees (El-Faitouri, 2014).

Democratic leadership: It is a leadership style based on open communication, transparency, fairness, and justice in the place of work (Lojpur, Ateksic, Vlahovic, Bach, & Pekovic, 2015).

Executive compensation: The total remuneration paid to the CEO and top management staff, including basic salaries, allowances, performance bonuses, and stock options (Basory, Gleason, & Kannan, 2014)

Firm size: The natural logarithm of the total assets (Darmadi, 2013)

Foreign ownership: The percentage of total equity owned by individuals and firms that are not nationals of the country where the business is incorporated or domiciled. Where the shareholder is a corporate organization, if its state of incorporation is different from that of the company in which shares are held, it is a foreign company (Liu, Miletkov, Wei, & Young, 2015)

Gender diversity. It refers to the percentage of females to the total number of persons on the board of directors (Isidro & Sobral, 2015; Quttainah, 2015).

Institutional ownership. The percentage of shares held by institutions to the total shares in a firm. Examples of institutional shareholders are pension and superannuation funds, hedge funds, and insurance and banking companies.

Market value: It is the current share price multiplied by the total number of shares in issue at any particular time (Alipour, 2013).

Market value added: It is the excess of market value of capital (debt and equity) over the book value of capital (i.e., the current market value of the firm's debt and equity less the economic book value). Economic book value is the net worth less share capital plus reserves and debt capital (Kouki & Guizani, 2015).

Research and development intensity: Research and development intensity is the firm's Research and Development (R&D) investment scaled over its total assets (Zona, 2016).

Return on assets (ROA): It is the earnings before interest, taxes, depreciation, and amortization (EBITDA) scaled by the total assets of the firm (Kara, Erdur, & Karabiyi, 2015).

Return on capital employed (ROCE): The ratio of total EBITDA and total capital employed in the firm. The total capital includes equity and long-term debt (Sahu & Manna, 2013).

Return on sales (ROS): It is EBITDA divided by the company's gross earnings or sales (Kara, Erdur, & Karabiyik, 2015).

Significant shareholder ownership: If a single individual, a group of related individuals, or an institution holds 5% or more of the share capital of a firm, the shareholder is said to be a substantial shareholder (Chahine & Zeidan, 2015).

Stakeholders: All the individuals and institutions that are affected by the action of a firm, including employees, directors, shareholders, investors, bondholders, creditors, suppliers, the tax authority, and the general public (Dalwai, Basiruddin, & Rasid, 2015).

Strategic leadership: Refers to leadership mainly concerned with leading organizations rather than leading in the organization. Strategic leaders take on overall responsibilities for the financial health of their organization, regardless of their department or strategic business units (Carter & Greer, 2013).

Tobin's Q: It is the ratio of the market value of equity plus the total value of long-term debt to the book value of total assets (Bhagat & Bolton, 2013; Kaczmarek, Kimino, & Pye, 2014; Silthipongpanich & Polsiri, 2015).

Transformational leadership: A type of leadership style that facilitates organizational engagement, trust, and shared responsibilities among members of a firm (Barrick, Thurgood, Smith, & Courtright, 2015; Mishra, Grunewald, & Kulkarni, 2014).

Transparency: Implies openness, accountability, a lack of hidden agendas, and full disclosure of dealings, practices, and transactions. It also connotes a corporate atmosphere where free and open exchanges are encouraged among members of the organization, and where rules and regulations and the reasons behind them are clear, fair, and accurately and thoroughly communicated to all stakeholders (Gu & Hackback, 2013).

Summary

In the first chapter of this dissertation study, I highlighted the problems in major public corporations using the agency, stakeholder, and stewardship theories as the theoretical framework to examine the issues. I traced the continued challenges in large firms to agency problem, which causes a conflict of interest between the managers and shareholders due to separation of ownership from control (Fama, 1980). In publicly listed companies, the problem is mostly acute because of the wide dispersion of stakeholders; sometimes the membership of these firms crosses

international boundaries. The company's affairs are left in the hands of directors and top executives, who may be incompetent or greedy or intent on pursuing their self-interest. The agency problem has given rise to two other related issues, one is information asymmetry, and the other is moral hazard. The directors have more information than the shareholders and can use the information to deceive the shareholders or benefit themselves or both. A moral hazard then arises whereby the shareholders have to employ other tools, such as monitoring and close supervision of executives, to minimize their potential loss.

The government tried to address these problems by passing laws, such as the SOX of 2002. The SOX requires companies to have an independent board of directors; independent audit committee; competent, independent, and capable members of the board; a compensation committee; and accurate and full disclosure of the companies' financial affairs. The Act also set up PCAOB, a body charged with the monitoring and supervision of external auditors. The legislation became necessary following the collapse of Enron, a large energy trader, and Arthur Andersen, one of the big four accountancy firms at the time, and arguably, the most aggressive. The stock exchanges, the Organization of Economic Cooperation and Development (OECD) the American Business Round Table, and the professional firms also responded to the crisis by setting up corporate

governance codes, to which all listed companies and other large public companies are to comply.

The SOX, PCAOB, and the various systems of corporate governance did not prevent the financial meltdown of 2007–2008, which took down Lehman Brothers and almost sunk AIG, but for government intervention and bailout. As McDonald and Paulson (2016) stated, AIG suffered from poor risk management and a weak board in its securities lending and credit swap businesses. The financial crisis led the government in the U.S. to enact another law, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. The Act aims at strengthening the financial stability of the US by improving firms' accountability and transparency, end the "too big to fail" assumption, protect the taxpayer from the costs of bailouts, and insulate the general public from abusive banking and financial services. The Act also established Financial Stability Oversight Council in Section 111, and in Sections 201 to 217, the Orderly Liquidation Authority. The aims and objectives of these Acts are similar to what the corporate governance codes are trying to achieve in large, publicly listed companies: Instituting transparency and adequate disclosure of the affairs of listed corporations.

Despite the legislations and the codes of corporate governance, fraudulent financial restatements and executive misuse of power are still rampant. The $1.9 billion accounting scandal in Toshiba was reported to have been as a result of severe

pressure on a weak management to show profit. For the financial recklessness in Toshiba, the regulators imposed a fine of $60 million on the company (Adaddy, 2015). Although the fine is a loss to shareholders, the financial cost is far greater than this, and the damage to Toshiba's corporate reputation is inestimable. Tesco, a British supermarket chain, also overstated its profits by $365 million to deceive analysts and shareholders (Miller, 2015). While the expectations of the market may be a problem for the managers, it is difficult to dispute that these corporate scandals may also be a result of an organizational culture that values appearances rather than substances, weak and ineffective managers, and compensation and promotion schemes that reward short-term profitability over long-term financial stability.

I argued in this dissertation study that legislation and corporate governance codes were not sufficient to reduce and minimize accounting scandals and fraud in large companies. While rules and regulations are necessary, practitioners, the government, and all stakeholders must also look at the type of organizational culture and leadership styles that prevail in organizations. The laws and codes of professional practice are prescribed uniformly and are expected to apply equally to all organizations. The firms' leadership styles and the particular organizational culture, the economic environment prevailing in the sector, the rate of technological changes, the macroeconomic indications in the country of

operation, and the degree of market sophistication and investor knowledge affect leadership styles and organizational culture. Organizational culture and leadership styles have effect on how corporate governance evolves and is implemented in firms, and these have a great impact firm performance. These and other indices will affect how the rules and regulations are applied as well, and the outcomes in different or similar organizations will differ. As a matter of fact, a uniform rule is inadequate to govern all firms. Although corporate culture and leadership styles cannot be legislated, it is within the power of shareholders and regulators to select and approve directors and managers with leadership styles and culture that promote firm cohesion and positive organizational climate.

I proposed a theoretical model in this study to examine the association between corporate governance mechanisms and organizational performance. I use three theories of corporate governance as the theoretical lens to examine the conflict of interests that arises between owners of capital and managers that are entrusted with the management of the corporation. As Yarram and Dollery (2014) argued, the conflict of interest between the principal and agent is the primary source of problems in large firms.

To examine the association between firm performance and corporate governance, I used ROA, ROCE, and Tobin's Q as proxies for firm performance, the outcome variable. I also chose board independence, independence of the audit committee,

executive compensation, number of board meetings, and the size of the board as predictor variables. Two mediating variables were hypothesized to impact the relationship between corporate governance and firm performance. The two mediators in the study are firm size and age. The size of the company confers advantages and disadvantages on the firm. A large size means the organization has resources to devote to research and development, attract the most experienced staff to the organization, and buy inputs to the processes at cheaper prices because of the negotiating power that comes with size. Large firms, on the other hand, may become bureaucratic over time and slow to respond to opportunities and threats. Age is a proxy for experience. With age, firms may be able to manage risks better and prevent costly mistakes. Age may also impede the firm from being the first to the market; the managers may base their action on experience and may be surprised by a much smaller, and better organized, newcomer.

The four other chapters in this dissertation study were organized as follows: In cchapter 2, I reviewed the current state of research in corporate governance theories and examine their impact on corporate performance. I documented and discussed the theories and the findings, including the scope for further research. In cchapter 3, I reviewed the research methods that I used to examine the association between corporate governance mechanisms and firm performance. In cchapter 4, I presented the result of my research into the impact

of corporate governance on organizational financial performance in nonfinancial companies listed on the Nigerian Stock Exchange. Finally in cchapter 5, I presented the summary of the dissertation study, conclusions, and recommendations.

Chapter 2: Literature Review

Introduction

In this chapter, I review the literature on corporate governance and firm performance. I organized the chapter into three sections. In the first section, I reviewed the literature on corporate governance with particular reference to the agency, stakeholder, and stewardship theories. In the review in this section I compared and contrast the main theories of corporate governance, which are agency, stakeholder, and stewardship theories. I examine the strengths, weaknesses, and the significant assumptions underlying the theories. In the second section, I focus on the conflict of interest between the shareholders and managers, the response of the stakeholders to the problem, and the findings of research studies. The third and final section consisted of a literature review on a firm's performance, with emphasis on ROA, ROCE, , and Tobin's Q, which were the dependent variables in the study.

Theories of Corporate Governance

There were three main theories of corporate governance that I considered in this study. These were the agency theory, the stakeholder theory, and the stewardship theory. These theories provided the foundation and theoretical underpinnings for the study and showed an understanding and appreciation of corporate governance as a crucial tool in organizational management. The theories also illustrated why

corporate behavior is as it is and how a long-term improvement in the efficiency and effectiveness of firms can be sustained.

Agency Theory

The agency theory assumes a conflict of interest between managers and shareholders of large corporations as a result of the separation of ownership from control (Wallis & Klein, 2015). The managers are sometimes motivated to pursue self-interest, which may conflict with the profit maximization objective of the owners (Smith, 2003; Wallis & Klein, 2015). As rightly stated by Smith (2003), the owners could not expect managers to devote their attention faithfully to the shareholders' interests as much as their own. A conflict of interests arises as a result of opportunistic behavior of the managers. But according to Miletkov, Moskalev, and Wintoki (2015), the cause of agency problems in organizations is the mangers' excessive focus on short-term profit. Managers are appraised on the extent to which they improve firm value and profitability in a calendar year (Rashid & Islam, 2013). The appraisal and scrutiny of shareholders and financial analysts force managers to focus on the short-term, and when short-term profit is overemphasized, there is unlikely to be an ethical work climate and a positive attitude of stewardship by the managers and directors (Hassan & Naser, 2013).

Hiebl (2013), in a qualitative study of 14 large and privately held manufacturing firms in Austria, found short-term management appointments increase agency problems. The researcher also found that agency-like behavior increases agency problems that are not present in firms managed by owners-managers, who exhibit steward-like behavior. Some researchers see the basic assumption of agency theory as the main cause of the conflict of interest in corporations. But the assumption that managers are fraudulent and lack the integrity to pursue owners' objectives when exercising managerial power may not be applicable in all cases. The assumption of the agency theory may have become a self-fulfilling prophecy: The managers are assumed to be selfish and self-interested, and in practice they behave according to type. This assumption has been the major reasons why experts call for close monitoring of employees, especially the top management by the board of directors (Kaczmarek, Kimino, & Pye, 2014).

Some of the self-interested attitudes of managers include compensation that is not commensurate with performance, taking excessive risks that may put the future of the firms in ruins as a result of pay for performance compensation, and using the firms' resources to fend off takeovers that may be in the interest of the shareholders (Hiebl, 2015). Quttainah (2015) found antitakeover provisions negatively and significantly associated with firm performance. Quttainah also

found antitakeover provisions acted against firms' survival and recovery during the 2007–2008 financial crisis.

Hiebl (2013) found the presence of owner-manager in management lowers the perceived control by top management and in turn ensures mutual trust and respect between the managers and shareholders, reducing agency problems. But both the corporate governance and agency theory scholarship have developed on the basis that managers need close monitoring by an independent board of directors and an independent audit and compensation committees to reduce agency costs (Hiebl). The agency costs are borne entirely by the shareholders (Baulkaran, 2014; Kay & Vojtech, 2016; Rashid & Islam, 2013). Not all research findings support the agency theory. Kay and Vojtech (2016) found that, although the SOX laid much emphasis on director independence to reduce agency problems, the rule fails to reduce CEO misbehavior, such as excessive compensation and manipulation of rules of incentive-based remuneration. Baulkaran (2014) on the other hand, found that independent chairperson on the board of directors and majority voting rights provisions were negatively associated with firm value. He also found *say-on-pay*, a policy that allows shareholders to vote on employees' emoluments, was negatively and significantly associated with stock returns.

Rashid and Islam (2013) and Jermias and Gani (2014) found that a bigger board size and CEO duality were positively associated with firm performance, but the findings

are inconclusive. Rashid and Islam carried out their research on all listed companies on the Kuala Lumpur Stock Exchange and concluded that the explanatory power of the variables was low due to many imperfections in the market. Although the SOX laid much emphasis on the strength of an independent board and independent committees to reduce agency problems in firms, research results have not been consistent with these assumptions. Shank, Hill, and Stang (2013) stated that since larger firms have much better resources than smaller companies, availability of resources could have protected them from the consequences of bad corporate governance practices, not because of their implementation of the provisions in SOX or compliance with corporate governance codes.

Shank et al. (2013) found that large firms perform better with a good corporate governance system. Bhagat and Bolton (2013) examined the association between corporate governance and the performance of companies, analyzing data from RiskMetrics and Investor Responsibility Research Center between 2003 and 2007. They found board independence was negatively associated with ROA in the periods before 2002, but positive and significant post-2002. Bhagat and Bolton also found the G-Index and the E-Index and ROA positive and significant in the years following the SOX (Bebechuck et al., 2009; Gompers et al., 2003). The result of their research suggests a positive relationship between the composition

of the board and firm performance, made possible by implementing the provisions of the SOX.

Benjamin and Zain (2015) found board independence and frequency of meetings negatively and significantly associated with dividend payout, suggesting that corporate governance mechanisms and dividend payouts are substitutes. Cao, Leng, Feroz, and Davalos (2015) found smaller board size, greater board independence, greater gender diversity of the board, and lower concentration of institutional ownership positive and significantly associated with post-SEC's Accounting and Auditing Enforcement Releases. Regulatory sanctions may force corporations to improve their corporate governance systems (Baran & Forst, 2015; Cao et al., 2015).

Gama and Rodrigues (2013) and Sun, Lan, and Ma (2014) found the urge or temptation to commit accounting fraud and the chances of success are negatively related to the size and independence of the board. Sokolyk (2015) and Wang (2015) also reported that governance mechanisms had a positive and significant effect on corporate performance. Adewuyi and Olowookere (2013) and Gama and Rodrigues equally found that the size of the board and the number of independent directors are positive and significantly associated with firm performance. Quttainah (2015) asserted that board independence and board size only affect performance when other corporate governance mechanisms are present in the

company. This means that a firm benefits from implementing all corporate governance codes, and part implementation may not be effective.

Other important controls to strengthen corporate governance systems are through committees, such as audit and compensation committees. An independent audit committee will be composed of external independent directors, and the majority of the members will be qualified with adequate industry experience to make an appreciable impact on the governance of the firm (Hassan & Nasser, 2013). Jermias and Gani (2014) reported that the size of the audit committee and the number of audit committee meetings were negatively related to firm performance. Adewuyi and Olowookere (2013) found independence of the audit committee positive and significantly related to ROA and Tobin's Q. Leung et al. (2014) also observed the independence of the audit committee was positive and significantly associated with ROA and stock returns. The expertise of the members of the committee was found equally important by many researchers and would dictate the tone and the quality of discussions in the committees (El-Faitouri, 2014; Ioana & Mariana, 2014; Leung et al., 2014). Ioana and Mariana (2014) noted that the frequency of audit committee meetings was not related to company performance at the one percent level of significance, but members' expertise in finance and accounting was positive and significantly associated with firm performance, measured by ROA and ROCE.

Expertise in accounting, audit, and risk management are essential for audit committee members if they are to help their firms survive in financially turbulent times (Dah, 2016; Ioana & Mariana, 2014). In a recession, boards' oversight tends to increase as well as the CEO's power (Ciampi, 2015; Pugliese et al., 2014). Ciampi (2015) also reported that firms that became bankrupt in Italy in 2008 had higher debts to equity ratios, higher interest payments, and weak profitability ratios than firms that survived the financial crisis. A good corporate governance practice may have insulated some firms from the adverse effects of the financial crisis, and a strong CEO may have achieved the same thing.

Ciampi (2015) reported that CEO duality, a measure of CEO power, was negatively and significantly associated with the incidence of bankruptcy in small firms, those with turnover below 5 million Euros. When the CEO shares his or her power with a chairperson in a small enterprise, the likelihood of financial distress increases (Shank, Hill, & Tang, 2013). Zona (2016) reported that CEO duality was positively and significantly associated with performance, measured by research and development intensity. The findings of shank et al. (2013) and Zona (2016) confirmed that absence of conflict of interest, or a conflict of interest that is well managed by corporate governance systems, improves a firm's performance.

Ciampi (2015) that nondefaulting firms had more of CEO duality, higher ownership concentration, and more share ownership by insider directors. During a financial

crisis, management entrenchment tends to increase as well as monitoring and advice from the board (Pugliese et al., 2014). Dah (2016) reported a positive and significant association between board independence and management entrenchment. It is most likely that board activities and those of its committee will become more pronounced during a crisis. The effort to rescue a company will be heightened at this time, and the CEO needs all the power at his or her disposal to turn around the fortunes of the firm. Sharing of power with the chairperson may well lead to default in the company (Ciampi, 2015).

The percentage of shares held by large shareholders, institutions, and foreigners could be major determinants of corporate performance (Du, Deloof, & Jorissen, 2015). If the founder or a family member is in charge of the day-to-day management of the firm's operations, there is no separation of ownership from control. There will be no conflict of interest, and the cost of the agency would be low. In large corporations, agency problems are present and the percentage of shares held by large shareholders, institutional investors, and foreigners impact firm performance (Pugliese et al., 2014). Liu et al. (2015) did not find any relationship between foreign ownership of a firm's shares and performance in their examination of all companies listed on the Shanghai and Shenzhen Stock Exchanges between 1999 and 2012.

Chen (2015) found that in China, companies with foreign ownership had more outside directors, which is positively and significantly associated with performance. Al-Saidi and Al-Shammari (2015) stated that the type of shareholders, whether foreign, family, or state matters in organizational performance. This is because some shareholders are better at monitoring the top management than others. Azoury and Bouri (2015) found disparity between cash flow and voting rights of large shareholders and family CEOs encourage cheating and expropriation of minority shareholders. As stated by Yeh (2014), markets will react more favorably to proposals of large shareholders, as directors and management are more likely to take such suggestions seriously. Yeh also found that directors, most often, ignore the proposals of small shareholders.

Institutional investors can ensure that the board of directors and management act in the interest of the shareholders through monitoring, advising, and counseling. Pension and mutual funds control a large proportion of many firms' shareholding and can use the influence they have to shape the activities of the board as they desire. But the research findings have been mixed. Many institutional shareholders refuse to get involve and simply sell their shares rather than get into arguments with the CEO or the chairperson. Jermias and Gani (2014) found a positive and marginally significant relationship between institutional shareholding and company performance in the S&P 500 companies between 1997 and 2004.

Alipour (2013reported that in Iran, ownership concentration was negatively and significantly associated with ROA the power of institutional investors was positively and significantly related to ROA but negatively and significantly related to Tobin's Q. As Tobin's Q measures firm performance in terms of the return on stocks and firm value, the indication is that the market in Iran and other emerging markets may not trust corporations in which institutional shareholders control the board of directors. Yeh (2014) found that markets react more favorably to announcement of proposals by large shareholders because it has the effect of reducing managerial entrenchment.

Agency literature starts from the premise that the separation of ownership from control motivates managers to use their position to benefit themselves at the expense of the shareholders (Ahmadpour & Shahsavari, 2016; Arenas & Rodrigo, 2016). If a business is family-run, then the problems and consequences of principal-agent conflict of interest should disappear. A review of the current research findings leaves many doubts. Jameson, Prevost, and Puthenpurackal (2014) found the association between organizational performance and family firms and family-controlled boards of directors to be negative and significant. Tsai, Yu, and Wen (2013) found advertising intensity, market-to-book value, and independent directors positively and significantly associated with Tobin's Q in family-controlled firms.

Jameson, Prevost, and Puthenpurackal (2014) also found that controlling shareholders and family and founder firms are positively and significantly associated with lower Tobin's Q. These relationships were found to be significant in non-financial firms in India. The research findings indicate that the validity of the assumption of separation of ownership from control as the major issue in corporate governance remains a difficult area. Gama and Rodrigues (2013) reported positive and significant correlation between family ownership and firm performance. In manager-controlled firms, Tai et al. (2013) found negative and significant association between debt ratio and debt ownership and Tobin's Q. Tsai, et al. (2013) also found independent directors negatively and significantly associated with firm performance. It is possible that non-family firms outperform family companies because the former tend to be bigger and more professionally managed, and the control systems and corporate governance structures in non-family firms are more elaborate than in family-controlled companies.

Managerial ownership, like family ownership, is a corporate governance mechanism that may enhance firm performance, since theoretically, it closely aligns the interests of managers and shareholders. If a conflict of interest arises from the separation of ownership from control as stated by the agency theory, the more managerial ownership there is in a firm, the less should be agency problems and the better the performance of corporations. Baulkaran (2014) studied 218 companies listed on

the S&P/Toronto Stock Exchange between 2003 and 2010 with 1,744 firm-year observations. The researcher stated that managerial ownership decreases firm risk and reduces agency costs. Mangantar and Ali (2015) and Jermias and Gani (2014) found a positive and significant relationship between managerial ownership and Tobin's Q. On the other hand, Tsai (2013) reported a negative and significant association between Tobin's Q and managerial share ownership. If managers, due to weak corporate governance structure and poor internal control systems extract value they are not entitled to from the firm, they may not be motivated to manage the company efficiently and effectively. This is more so if the illegally obtained value is more than, and significantly disproportionate to, the returns they get from their investment in the corporation.

Managerial share ownership is part of the broader share ownership structure in a large, publicly listed firm. The combination and the percentage of each of the components in the structure exert different influences on the performance of a company. Jermias and Gani (2014) found a positive and significant association between managerial ownership and Tobin's Q. Kouki and Guizani (2015) did not find a significant relationship between managerial ownership and board independence not significant in 30 nonfinancial firms listed on the Tunisian Stock Exchange. Managerial compensation, like managerial share ownership, is a factor that can affect a company's financial performance. A compensation scheme that is

a combination of fixed and variable pay linked to company performance could motivate the CEO and top management staff to perform better than when the total emolument is fixed regardless of the level of performance.

Basory, Gleason, and Kannan (2014) and Al-Matar, Al-Sivid, and Bt Fadzil (2014) found a positive association between CEO compensation and firm performance. Basory et al. (2014) reported a positive and significant relationship between CEO compensation and firm performance positive and significant. Al-Matar et al. (2014) observed that the relationship was not significant in the study they conducted. Sila, Gonzalez, and Hagendiorff (2016) found no evidence of a connection between gender diversity and CEO compensation. Nevertheless, Sila et al. (2016) stated that in 1,960 firms in the US between 1996 and 2010, there was a gender bias appointing a female director once at least one is already on the board of directors, but female directors as a factor do not affect CEO compensation.

Alves, Couto, and Francisco (2016) found that the higher the CEO remuneration, the higher the book value of assets and dividend yield; that is, both the dividend yield and assets value were positive and significantly associated with higher CEO pay. A higher CEO pay is an incentive to motivate the CEO to perform better than when the total remuneration is lower than what is obtainable in the industry as a whole (Alves et al., 2016; Basory et al., 2014). It is a good policy that when firms

set the CEO and management compensation, directors should be aware of the structure of pay in the industry. Alves et al. (2016) found that the remuneration committee was positively and significantly associated with higher CEO pay in Portugal, suggesting that the firms without a compensation committee pay less to their CEOs.

The agency theory posits that managers need to be monitored and closely supervised to ensure that they are doing their duties in the interests of the shareholders. The annual financial statements and the interim financial reports are the principal documents and main channels for informing the shareholders of how well their company is doing, at least financially. The law makes it mandatory to present financial statements to the shareholders every year in an annual general meeting (AGM). A balance sheet, income and cash flow statement, and explanatory notes are part of the documents that must be laid before the meeting for approval. Other information on the financial statement and annual reports are the report of the CEO, the report of the chair, major events that happened during the year under review, risk management procedures, contribution to charity, and environmental reporting. Sometimes, these statements do not present a "true and fair" view as required by law. Manipulations of financial statements have many causes, such as the need to meet profit estimates, the need to shore up share price to satisfy major shareholders, the desire to cash-in on options, or management's objective to

increase the firm's performance and earn higher pay when part of the pay is linked to performance (Morgenson, 2016).

An independent firm of certified accountants is required to audit financial statements and certify them as true and fair to prevent untrue statements in financial reports. One of the important mechanisms in corporate governance is the establishment of audit committees to supervise the work of the external auditors. The SOX also established the PCAOB with similar aims and objectives. Ioana and Mariana (2014) and Al-Matar et al. (2014) found a positive and significant association between audit committee and Tobin's Q. The size of the committees, its frequency of meetings, independence of the members, corporate complexity, audit fees, and the status of the audit firm also have effect on the relationship between audit committee and corporate performance. Ioana and Mariana (2014) found no correlation between audit committee structure, frequency of meetings, and the independence of audit committee members. Research findings on the relationship between audit committee process and firm performance are mixed (Adewuyi & Olowookere, 2013; Alves et al., 2016; Dalwai, Basiruddin, & Rasid, 2015; Jermias & Gani, 2014). In their study of 487 listed firms on the Hong Kong Stock Exchange, Leung et al. (2014) found the effect of family ownership on the interaction between audit committee independence and firm performance mixed.

Hassan and Naser (2013) found a negative and significant association between audit fees and the proportion of the members of the committee that are independent. Hassan and Naser (2013) also reported a positive and significant relationship between the presence of audit committee and the size of the committee, profitability, status of the audit firm, and corporate risk in non-financial companies listed on the Abu Dhabi Stock Exchange. Ioana and Mariana (2014) reported a positive and significant association between the professional experience of audit committee members and ROA .Contrary to the findings in Hassan and Naser (2013), Jermias and Gani (2014) found the size of the committee and the number of meetings were negatively associated with performance. Adewuyi and Olowookere (2013) examined the effect of corporate governance codes on firm performance in 70 nonfinancial companies listed on the Nigeria Stock Exchange following the introduction of the code by Securities and Exchange Commission in 2003. They found that firms that have independent audit committees recorded a good corporate governance change. A good governance change was defined as an increase in board independence and director share ownership, and a decrease in CEO duality and board size. Adewuyi and Olowookere (2013) found board size negative and significantly related to a good corporate governance change.

Stakeholder Theory

The industrial revolution made it possible for a large number of people, first in England, then around the world, to escape poverty. The quantities and quality of goods and services available multiplied, and at this time, what was more important was to safeguard the interests of the owners of capital, the capitalists, that made the substantial progress possible. As many ventures became too large for one person or family to finance, partnerships, and later, companies whose liabilities were limited, were formed. The first of those companies were chartered companies, specially authorized by the government or the king to carry out trade in a particular territory or business area. Special protections were afforded the risk takers. Even later when ordinary citizens began to own shares, the focus of the legislation was on the supremacy of the shareholders over the financial and other affairs of the firms, and the need to protect investors from acts of fraud by dubious businesspeople.

The agency model is based on a narrow view of contractual relationships, whose underlying philosophy is internally driven (Giudice, Peruta, & Maggioni, 2013; Miletkov, Moskalev, & Wintoki, 2014). The stakeholder model's underlying philosophy is a much broader, and an externally focused model, as it considers the interests of shareholders, employees, clients, suppliers, strategic partners, and other groups that have connections with the firm (Conyon & He, 2016; Haβ,

Johan, & Schweizer, 2016). Some researchers have stated that the notion of considering the interests of all stakeholders may have been extended to an impracticable extent, and it is important for corporate managers and practitioners to know where to draw the line (Arenas & Rodrigo, 2016; Perrault & HcHugh, 2015).

Corporate organizations have a contractual relationship with many entities apart from their stockholders, all of who are considered as stakeholders of the firm (Donaldson & Preston, 1995). To be considered a stakeholder, the relationship with the company needs not be contractual, but it should be limited to those that establish contact with the company and a relationship that is capable of producing mutual benefits. It is reasonable to assume that a company should expect stakeholders' support only if the firm undertakes projects that are seen as desirable by those who have a reasonable expectation that they would benefit or suffer harm from the actions of the corporations. In other words, a company's action or inaction should have a potential impact on an individual, community, or other entities for them to be qualified as stakeholders of the firm.

Andre and Pache (2016) did not see why there should be a limit to the definition and scope of the concept of the stakeholder as advocated by other researchers, such as Van Oostenhout et al. (2006). Nongovernmental organizations (NGOs), local communities, and the natural environmentalists are included in the definition of

stakeholder advocated by Andre and Pache (2016). Andre and Pache differentiated between stakeholders that provide resources to the firm (suppliers, partners, and customers) and those that are without resources. Each of the two different types of stakeholders requires equal but separate treatment by firms (Andre & Pache, 2016).

A firm draws resources from the environment and ought to be responsible for the preservation of it for the present, incoming, and future generations. The question is whether future generations can be considered as stakeholders (Arenas & Rodrigo, 2016). Whether or not future generations are so considered, the question of fairness and equity in the use of resources is a fundamental one. It is difficult to determine the identity of future generations, and what is a fair allocation to them out of a firm's resources. Arenas and Rodrigo (2016) stated that the solution is to consider future generations as the direct descendants of the present stakeholders, out of who the firm will get future employees, customers, suppliers, and managers.

Research has shown the benefits to businesses of having a broader view of participants in the corporate entity. Mande and Rahman (2013) found that employees' involvement in decision-making ensures effective firm performance. Jameson, Prevost, and Puthepurackal (2014) reported a negative and significant association between controlling shareholders and firm performance measured by Tobin's Q.

To tap the benefits that come along with looking after the interests of all stakeholders in a company, managers need to keep them informed about the affairs of the company by giving timely and accurate information (Conyon & He, 2016; Sendjava, Pekerti, Hartel, Hirst, & Butarbutar, 2016). All employees, and most importantly managers, must at all times think of how their actions and decisions affect every stakeholder in the organization (Sendjaya et al., 2016).

One of the most important performance indicators in a firm is the ability to generate cash for the financing of the business. In the short-term as well as over the long period, availability of cash is crucial to organizational survival and growth. As the managing partner of Idea Booth has stated, cash not EBITDA is the best test of survival and growth opportunities (Cole, 2016). Martin, Campbell, and Gomez-Mejia (2016) also said if a company is to have good reputation and grow, it has to obtain good financing terms from relationships it has built with its various stakeholders. Cole (2016) remarked that every CEO needs to think of survival in the short-term and growth and expansion in the long-term. Having partners in the form of suppliers and other stakeholders to help achieve these twin objectives is crucial in today's ever-changing business climate.

Fair dealing with all stakeholders also affects a firm's reputation and corporate image. The opinions that are held by the company's partners affect the relationship with stakeholders and the way and extent to which they participate in the firm's

activities. The firm's image also affects the type of employees that are attracted to the company and the type of commitment and loyalty the organization gets (Ayoso, Roca, Arevalo, & Aravind, 2016). The concept of reciprocity is important in obtaining stakeholders' cooperation. For taking the risks to invest in the company, shareholders deserve to be fairly treated for the important contribution they are making in the firm. Also, creditors and finance providers need to trade with the firm at profit.

The firm needs to consider the interests of all the stakeholders so that there would be a mutually beneficial relationship between them. The organization contributes value to the stakeholders in return for unfettered access to the resources and expertise they bring to the firm. Shen and Gentry (2014) found that a firm's strategic decisions affect corporate governance because such actions alter ownership structure. In the stakeholder theory, researchers must strike the right balance between what is possible and what is simply impracticable. There must be some delineation in the definition of who a firm's stakeholders are. Those who have contractual relationships can be considered as stakeholders as well as those who stand to lose if the firm goes out of business, degrades the environment, or carries on activities that are damaging to the community interest and wellbeing. Beyond the aforementioned stakeholders, it becomes increasingly difficult and conceptually problematic to argue that a firm should take into consideration the

interests of all persons, whether foreseeable or not, when setting and executing corporate strategy.

Stewardship Theory

The stewardship and agency theories are at the different ends of a continuum of corporate governance. While the agency theory is based on the rational economic human beings, always striving to look after their self-interest and think and act basically in the short-term, the stewardship theory is based on the model that sees a manager as an equal partner in business. The steward tries at all times to render faithfully and truthfully the resources committed to his or her hand, always with unequivocal devotion to the objectives of the business even at the expense of his or her economic interest. The stewardship attitude of the manager engenders trust and dependability and little control is necessary to see that the steward gets the job done satisfactorily (Hiebl, 2013; Miletkov et al., 2015).

The stewardship theory emphasizes that the manager is committed to the long-term goals of the organization instead of the steward's interests. There are thus little mechanisms that need to be put in place to ensure corporate objectives are achieved (Hiebl, 2013). The savings in agency costs when managers imbibe the philosophy of a steward instead of that of an agent should improve organizational performance. Perhaps the best test of the differences between the attitudes of agents and stewards is seen during takeover battles and recessions. Agents tend to

entrench themselves in the organization during recessions and use the opportunity to maximize personal gains. During takeover battles, agents employ various stratagems like poison pills and issuance of new shares to frustrate a merger deal (Bebchuck et al., 2009). Stewards will not only present truthful information to the decision-makers, but will work in the overall interests of the organization and shareholders (Dah, 2016).

Stewardship theory posits that the ultimate goal of the stewards is to maximize the wealth of the shareholders and that of their organizations. To the extent that the steward focuses exclusively on the interest of the organization, the goals of the firm, the shareholders, and managers would have been perfectly aligned, and the consequences of divergence of ownership from control considerably reduced. But it would appear that the stewardship theory suffers from the same problem as the agency theory because the concern and focus of the theory is still quite narrow. The two theories are still not as broad in their outlook as the view taken by the stakeholder theory, which takes a bigger picture view of all the participants in a corporate environment.

The stewardship theory is yet to be fully accepted as a basis for analyzing organizational dynamics. But there are various benefits for using the theory to analyze organizations:

The adoption of the theory is likely to ensure a relationship between managers and shareholders based on trust and cooperation.

As stewards are motivated by a higher order of needs, such as self-esteem and self-actualization, they are likely to work for the long-term interests and sustainable performance of the organization. The benefits of the stewardship model will also be of benefit to shareholders and stakeholders.

By emphasizing a different model of the economic person who is only motivated by self-interest, the stewardship theory ensures a corporate atmosphere where decision-taken is simplified and easier than in a pure agency relationship. Information asymmetry and moral hazard that make decision-making difficult are not present when the central philosophy of management is to serve as stewards of the organization (Almadi, 2015).

As a model of governance, the stewardship theory changes employees' orientation and behavior from individualistic, self-serving agents, to a different type of individuals whose primary concern is advancing the collective benefit of other individuals and the organization. For an individual to have a sense of responsibility and an other-centeredness orientation, there is a need to transition from an agency-centered to a stewardship-centered person. The organization must change the control system from the traditional ones that lay emphasis on budgets, individual key performance indicators, and an appraisal system that recognizes

only individual efforts, to one that focuses on relationship-centered collaboration and promotion of collective responsibilities of employees for desired outcomes. The organization also needs to change the reward system from individual-centered, winner-takes-all to those that emphasize intrinsic benefits, compensation for self-efficacy, and self-determination. Lastly, the organization needs to develop individual's commitment to self-actualization rather than a short-term pursuit of financial gains. The outcome of all these efforts is an inculcation of stewardship behavior in employees. But the stewardship model cannot stand alone, and needs to be considered together with organizational policies, managerial structure, and leadership styles, which are the control and reward systems through which most things in the organization, including the stewardship model, works.

Corporate Governance: The Historical Context, Attributes, and Principles

Page (2005) defined corporate governance as the principles and legal and contractual frameworks that define and regulate the sharing of power in a corporation. The modern firm may be incorporated in the United States, has its headquarters in Hong Kong, manufactures in Taiwan and China, and source raw materials from Africa and Latin America. Corporate governance is the process and procedure for coordinating the various activities of the firm and ensuring stakeholders are treated fairly and equitably. The legal framework is necessary to ensure the firm respects the law and the contractual system that regulates the

firm's business behavior with all stakeholders: Debtors, creditors, financial institutions, shareholders, employees, regulatory authorities, the community, the government, and the general public.

The contractual framework defines the relationship between the actors in a corporation and the power relationship between the parties. The legal and contractual frameworks within which companies operate are necessary and justifiable because markets are imperfect, and managers usually have superior information than shareholders, and a contract needs to define the duties and responsibilities of the parties. Corporate governance is also defined in terms of the duties, responsibilities, and interactions of top management of the firm with the members of the board of directors. The board represents the shareholders in the company, and the most important duty is to oversee the managers and ensure that strategic goals of the firm are achieved without damaging its reputation.

The Historical Context of Corporate Governance

Corporate governance started in antiquity, from the time of tribal communes. The communities selected leaders to ensure members comply with the norms and standards of behavior in the community and that crimes are kept to the minimum to ensure progress of the society. In the 16th century, tribal communes gave way to global trading entities that were given Charter by the Crown to trade in a particular territory. Some of the well-known companies at this time were the East

Indian Company, the Hudson's Bay Company, and the South Seas Company. Corporate governance, as we know it today, was weak in these companies at the time. For example, the East India Company became a colossus, with a standing army. Charles II of England even granted the company a right to declare war. But all was not well with these early companies because of their weak corporate governance practices and extremely weak internal structure. The South Sea Company gave rise to the South Sea bubble, following massive fraud and economic disaster that followed the chartered firm's collapse (The Thorogood Publishing). The Bubble Act of 1720 was probably the first attempt to formally regulate companies and put in place corporate governance mechanisms. The aim of these efforts was to protect the members of the public and the investors. The Act itself had unintended consequences in that it hampered the development of joint stock companies.

The granting of charter was slow and inconvenient for businesses. The next progress came when the Parliament in England started incorporating companies, but this process took considerable Parliament time. Some of the legislations at this time in England were the Trading Acts of 1834 and the Chartered Companies Act of 1837. The real breakthrough came when the Parliament set up a committee chaired by William Blackstone to look into the issue. The result was the enactment of the Joint Stock Act of 1844, which required company registration,

but no limited liability. The Act also set up the Companies House and the office of the Registrar of Companies (The Thorogood Publishing). This was the first piece of legislation in the world that put incorporation of companies within the reach of ordinary business people (The Thorogood Publishing).

The U.K. Parliament passed the Companies Act of 1855 and the Joint Stock Companies Act of 1856. The Acts introduced the concept of limited liability and amended the Act of 1844. The specific requirements of the Acts of 1855 and 1856 foreshadowed corporate governance systems as corporations practice it today. The key provisions were: The U.K. Parliament passed the Companies Act of 1855 and the Joint Stock Companies Act of 1856. The Acts introduced the concept of limited liability and amended the Act of 1844. The specific requirements of the Acts of 1855 and 1856 foreshadowed corporate governance systems as corporations practice it today. The key provisions were:

All companies should file annual returns with the Registrar of Companies at the Companies House.

All limited liability companies should appoint external auditors

The word “limited” or its shortened version “Ltd.” shall end the company’s name.

The amount of authorized and paid-up capital should be stated.

The dividend paid, and the amount of loans given to directors, must be specified.

The companies must have a minimum of 25 members.

Despite these requirements, dishonest businessmen exploited the loopholes in the law and practice of the time to perpetrate frauds and dupe shareholders. One of these frauds, the run on Overend, Gurney bank, made the Bank of England to increase interest rate to 10%. The gurney bank episode was the last known run on an English bank, that is, until 2007 when a similar faith befell the Northern Rock. Poor corporate governance practices and inadequate board oversight brought the Northern Rock down, the same as what corporate governance codes, the Joint Stock Act of 1856, and many other companies' legislations tried to prevent.

The Cadbury Committee. In May 1991, the stakeholders in company management in the United Kingdom, concerned about the number of corporate collapses and financial scandals in the late 1980s and early 1990s, and investors' lack of confidence in the financial statements following these collapses, took action. The Financial Reporting Council, the London Stock Exchange, and the accountancy profession in England and Wales established the Cadbury Committee to address the financial aspects of corporate governance. Some of the issues the committee was charged with were: (a) to review the structure and responsibilities of the board of directors and recommend a code of best practice, (b) to consider the statutory duty of independent auditors and make necessary recommendations to the accountancy profession, and (c) to address the rights and responsibilities of the shareholders.

The Cadbury Committee's recommendations became a landmark and innovative thinking on corporate governance. Some of its recommendations have been incorporated into legislation and stock exchanges' codes and principles of corporate governance around the world. The rate of adoption of the recommendations shows that the system, process, and challenges of managing a corporation is universal, and most especially that concerted efforts and cooperation are required to minimize fraud, irregularities, and misstatements in companies' financial affairs to ensure free flow of capital in free market economies.

Some of the relevant recommendations of the Cadbury Committee were:

All listed companies on recognized stock exchanges should comply with the code of corporate governance, both in the spirit and the letter. The annual reports of all companies must contain a statement of compliance.

All listed companies should separate the office of the chairman from that of the CEO. If the two offices are combined in one person, the board should nominate a Lead Director from the group of non-executive and independent directors to counter-balance the considerable power vested in the Chairperson/CEO.

Non-executive directors should be independent and of high caliber, regarding qualifications, experience, and integrity.

The nomination committee, the audit committee, and the compensation committee, ideally, should be composed entirely of non-executive or independent directors to improve corporate governance standards.

The remuneration of directors, including the chairperson, should be disclosed in the financial statements.

The audit report should state the responsibilities of the directors for the financial statements and the auditor's responsibility to express their opinion on the financial statements.

Audit fees, rotation of audit partners, and earnings from non-audit services should be disclosed in the financial statements.

The collapse of Enron and the enactment of Sarbanes-Oxley Act of 2002. After the Second World War, the U.S. economy considerably expanded, many American corporations witnessed tremendous growth, both locally and overseas. The major priority at this time was to make money and satisfy shareholders' objective of wealth maximization. How the corporation was being governed was of less concern to shareholders: Dividends and share price appreciation were major concerns. SEC initiated a major reform agenda in the mid-1970s. SEC sued Penn Central directors in 1974 for preparing false financial statements and for misrepresenting the state of the company's financial health (Cheffins, 2012).

The financial scandals in Enron brought the world's attention, once again, to the danger of neglecting corporate governance practices. The demise of Enron led to the enactment of the SOX. The Act's cornerstone was the requirement for an independent board, independent audit committee, and independent remuneration committee. The Act also established the PCAOB The board was charged with the task of overseeing the external audit process and authorization of the audit firms that audit public companies. The committee also has the power to discipline erring firms.

Attributes of Corporate Governance

Corporate governance systems and mechanisms are meant to address the conflict of interest that arises in corporations where ownership is divorced from control. The twin problems of information asymmetry and moral hazard are largely a result of the mistrust that exists due to that separation. Managers, on the one hand, are rational human beings and are concerned with self-interest, which typically, are career progression and security of employment, personal development, and adequate remuneration. The shareholders, the owners of the firm, on the other hand, have as their objective the maximization of returns on their investments consistent with the risks they assume. The objectives of shareholders and managers are incompatible, which is why there is a conflict of interest with consequent agency costs entirely borne by the shareholders.

Effective corporate governance practices lower the conflict of interests between shareholders and managers by more closely aligning the two interests (Jameson et al., 2014). Two types of conflict can be distinguished in firms: A conflict of interest exists between shareholders and the debt holders as well as between stockholders, board, and management. While the last conflict is internal to the firm, the first is external, involving a specialized group of creditors, mainly the bondholders and others who hold secured and unsecured credit of the firm. If management takes unreasonable risks because it wants to increase returns to shareholders, it may jeopardize the assets secured creditors depend on as a last resort for the repayment of their loans. The situation is even worse for unsecured creditors because they get paid after secured creditors have been settled and certain regulatory obligations have been satisfied.

The lenders rely on a firm's integrity, the quality of its assets, the soundness of its business fundamentals, and the dependability of its financial statements in making loan decisions. A company's integrity and reputation and a high standard of financial reporting should translate to superior performance. Many studies have found significant improvement in the performance of firms that are transparent (Bijalwan & Madan, 2013; Gu & Hackbarth, 2013; Kara, Erdur, & Karabiyik, 2015). Governance and transparency are good for firms, but a more transparent company may attract corporate raiders.

Characteristics of good corporate governance practices. Certain characteristics differentiate a good corporate governance mechanism from others. Some of these features are as follows:

Transparency. This is an essential component of corporate governance. It ensures that the affairs of the firm are run in an open manner and information for decision-making is accurate, relevant, and promptly available. It means that management and the board have no hidden agendas, employees know the direction of the firm and understand their roles in the organization, and other stakeholders know the company's policies in areas that affect each of them.

Fairness. The modern corporation has many actors. The shareholders are technically the owners of the company, while the managers are the agents of the shareholders who have been charged with the responsibility of the day-to-day management of the firm. There are other members of the corporation without whom the company cannot grow and thrive. The employees, the suppliers, the bondholders, the various service providers, and the community are all stakeholders. These stakeholders supply labor, credit facilities, materials, and a peaceful environment for a firm's operations. While the agency and the shareholders' wealth maximization theories focus on the needs of the shareholders exclusively and how to align the managers' and shareholders' interests, the stakeholders' theory recognizes that every stakeholder has the right to receive information from the

company and be treated fairly. In today's connected, interdependent, and technology-driven world, the concept of ownership is changing, so also should be the focus of firms. Shareholders are becoming more dispersed, leaving control and management in the hands of the very few. With the directors' control over proxy votes, the real owner's voice is unheard. Also, institutional shareholders now own large chunks of a company's equity, complicating the concept of ownership further. The financial institutions and the debt holders supply needed finance to the corporation, just like the shareholders, and ought to be treated fairly and equitably as well. In the new economy, employees must be well treated as knowledge now trumps capital. The shareholder supremacy as a philosophy is becoming outdated. The focus of corporate governance should not be only shareholders, but employees as well, specifically how to recruit, train, control, and retain knowledge workers.

Discipline. A company's corporate governance mechanism works within the legal framework of a nation, and what is required first and foremost is for the firm to obey the laws of the host country and rules and regulations of the particular sector or industry in which it operates. Part of the characteristics of good corporate governance is for the board and management to be disciplined enough to obey the rules. The Volkswagen's emissions cheating scandal occurred when the company thought that the U.S. emission standard was too onerous to follow, and cutting

corners only brought temporary gains. The costly scandal that followed the exposure of the cheating has been described by the company's communications chief as embarrassing (Hakim, 2016). The directors took an unreasonable and unnecessary risk.

Self-evaluation. The board of directors charged with the duty to control and monitor the management must evaluate each director and the work of the subcommittees on which they are nominated. The periodic evaluation will ensure the board continues to meet its obligations, and that the directors are still qualified, independent, and fit for the office of the director of the firm. As Mack (2016) stated, a constant evaluation ensures that potential problems are spotted, communicated, and mitigated before they become real and embarrassing issues.

Effective risk management. The Board and management need to understand, evaluate, dimension, and measure the firm's risks to reduce or eliminate them before they become major disasters. The risk management process in the firm should be enterprise-wide, proactive rather than reactive, and cover operational, country, environmental, reputational, regulatory, and other risks affecting the particular area in the company. Good risk management seeks to balance the cost of risk management with potential benefits, the procedures being subject to ongoing review by the board and management. The directors also need to report the firm's risk management procedures in the annual financial statements, especially how

they identify and measure the risks, and the contingency plans in place in case of unexpected crystallization of known and unknown risks.

Clear strategy. Strategic planning and strategy implementation are the exclusive preserve of the top management. The board must also devote considerable attention to the company's strategic goals and its implementation. A clear strategy sets the limits to what the company can and cannot do, and how it wants to be perceived by its customers. If the strategy is clear and unambiguous, it has the power to rally employees and set a clear path for the firm to achieve its objectives.

Social responsibility. A firm must be socially responsible, both to the host community and to the environment. Social responsibility starts with obeying the written and unwritten rules of the community. It also covers the company's efforts at waste disposal; the policy on global warming and use of recycling materials; the policies on employment of the disabled, charitable contribution, and political donations; and investment in the community.

Principles of Corporate Governance

The *Merriam-Webster Dictionary* (2016) defined a principle as "a moral rule or belief that helps you know what is right and wrong, and that influences your actions", or "a basic truth or theory: An idea that forms the basis of something", or "a law or fact of nature that explains how something works or why something happens" (The Merriam-Webster Dictionary, 2016). The principles of corporate

governance help the shareholders, management, and all other stakeholders to know why corporate governance is important and the basis of the rules. The Business Round Table (BRT) is an association of American CEOs of large corporations with combined annual revenues of over $6 trillion and 14 million employees. In 2012, the association established corporate governance principles that all members are to adopt in their firms. The Organization for Economic Cooperation and Development (OECD) also has corporate governance principles, which were revised in 2015. Stock exchanges around the world have adopted some of these principles as best practices. The United Nations Development Program (UNDP) also listed characteristics of good corporate governance, which include participation, the rule of law, transparency, equity, accountability, and strategic vision (UNDP, 1997).

The Business Round Table principles of corporate governance. In their 2016 statement of the principles of corporate governance, the BRT identified corporate actors, to whom the document is addressed, as the board and the shareholders, and their relationship with the other stakeholders. They stated that the relationship between the actors should be based on fairness and transparency, some of the attributes of a good governance system that were earlier addressed in this study. The firms must also be good citizens of the community where their operations take place, and must be committed to complying with the rules and regulations of

their host country. The BRT sees the duties of the board as one of selecting and overseeing qualified and ethical CEOs, monitoring management performance, and complying with the laws and corporate ethical standards. Management is to give unbiased information to the board and be responsible for corporate planning, risk management, and strategy setting. The shareholders are not saddled with the day-to-day administration of the corporation, but are to elect representatives to look after their interests and receive information to make voting and investment decisions. Perhaps, the most important point on the BRT principles is the section on board oversight. The SOX also placed considerable emphasis on board oversight and its independence, and the independence of board committees. The BRT principles on board oversight are as follows:

Board composition. Directors should be elected by majority vote, and the elected directors should come from a variety of backgrounds to guide the company through the various stages of an increasingly complex business environment.

Board leadership. Board leadership structure cannot be the same in all organizations. The complexity of the firm's business, industry, ownership structure, business environment, and area of operations dictate the type of board leadership structure in a firm. The BRT recommends that where the positions of CEO and chair are combined, there should be appointed an independent director as a lead director. It is the same requirement recommended by the United Kingdom's Cadbury

Committee on corporate governance. The lead director would chair and coordinate executive sessions and has the right to call meetings of the nonexecutive directors. He or she chairs the meetings in the absence of the chairperson of the board, reviews and approves agendas of the meetings, and oversees performance evaluations of both the CEO and top management of the corporation. The same recommendation is advocated in the OECD principles of corporate governance.

Board organization. The BRT favors the use of committees to address in-depth key issues affecting the organization that may not be accommodated in a full board meeting. The committees supported by the BRT principles of corporate governance are as follows:

Audit committees. The audit committee should be composed of at least three independent directors, who are financially literate as defined in the listing particulars; at least one member should be a financial or accounting expert. The audit committee is to select and oversee the terms of engagement of the external auditors and see to their independence on an ongoing basis, oversee the firm's financial reporting and its crucial accounting policies, judge the accuracy of its estimates, and read and review the management letter on the state of the firm's internal control and reporting systems. The provisions in the PCOB established by the SOX of 2002 are similar to the audit oversight requirements of BRT principles. Apart from its

oversight functions on the firm's accounting and reporting systems, the committee should also review the firm's risk management processes; its ethical, legal, social, and corporate code of conduct; the scope, depth, and comprehensiveness of the internal audit plan; and the appraisal of the senior internal auditor and the key staff, including their qualifications, independence, competence, and quality of reports. The committee should have direct communication with the chief internal auditor, meet frequently, and make their reports available to the full board.

Nomination committee. The committee, which should be composed only of independent directors, should have at least three members. Its duties are to (a) recommend director nominees to the board, (b) oversee the structure of the board, its composition, and regular evaluation, (c put in place and review the succession planning, (d review board policies, agenda, and processes, (e) monitor the board's efforts to connect and engage with all stakeholders, and (f) recommend, where appropriate, changes to the firm's principles of corporate governance.

Compensation committee. Some of the duties of the compensation committee may be shared with the nomination committee, especially the duty of overseeing the compensation of the board. Every firm should have a compensation committee to address the important issue of remuneration in the company, especially the compensation of top management and directors. The Cadbury Committee, the OECD, and the Sarbanes-Oxley Act of 2002 recommended a compensation

committee to be composed of independent directors. A minimum of three directors is recommended by the Business Round Table to oversee all compensation matters. Many researchers have also found a significant and positive association between compensation and firm performance (Dah, 2016; Perryman, Fernando, & Tripathy, 2016). The committee should have a compensation scheme that links pay with performance, but should also be aware of the incentives and motivation pay-for-performance compensation structure affords management in terms of potential for misstatements in financial statements and accounting fraud. The most important task for the committee is to ensure managers' remuneration structure establishes meaningful goals for performance and reduces the gap between their interest and the long-term objectives of shareholders by encouraging the managers to invest in the company.

Relationship with stakeholders. The board must establish a relationship with all stakeholders based on equity, fairness, and trust. Although the interest of the shareholders is paramount, other stakeholders should also be considered, and their views taken into account as follows:

Shareholders. Firms should be responsive to shareholders' grievances and concerns, educate them on the policies and procedures in the company, and bring them up to date on the role and activities of the board and the challenges facing their company. The board should encourage the shareholders to attend meetings and

make recommendations for the interest of the company. Effective communication with the shareholders through annual reports, press releases, proxy statements, and other corporate communications channels are important to get the shareholder informed and engaged in the firm.

Employees. Many firms claim employees are their most valuable assets, yet actual corporate practice may not reflect this sentiment in most corporations. Employees must be treated fairly and equitably, informed of the firm's policies and procedures, especially concerning job responsibilities, security, and in seeking redress if wrongfully treated. Employees must feel that they are making meaningful contributions to their firm's objectives and that the company values their contributions.

Communities. The host communities provide the raw materials, labor, and a peaceful working environment for the firm. The company must be a good corporate citizen, contributing to community projects, promoting awareness of public health and safety, and be seen as ethical and responsible. It is a good policy to report in the annual financial statements the company's policy towards the physically challenged, the number of the physically challenged employed from the community, recycling policies, preservation of the natural environment, and participation in community activities.

Government. To be a good corporate citizen, the firm must first and foremost operate within the law and be actively involved in the legal compliance and development in its area of operations. Political activities should be handled very carefully. The board needs to oversee all the firm's political activities and contributions to political parties. Full disclosure should also be considered in the financial statements (BRT, 2016).

The Organization of Economic Cooperation and Development/G20 principles of corporate governance. In 2015, the OECD revised its principles of corporate governance originally developed in 1999 and revised in 2004. The principles have been widely adopted in many countries and have influenced several corporate governance codes. The organization stated that corporate governance is not an end in itself, but a means of achieving market efficiency, business confidence, and liquid equity markets. All the G20 countries partook in the review of 2015; as well as the Basel Committee, the Financial Stability Board, the World Bank; and regional governance roundtables in Latin America, Asia, the Middle East, and North Africa.

The principles were in six chapters. Chapter 1 deals with the role of governance in promoting a transparent and fair market and efficient allocation of scarce resources. Chapter 2 of the OECD principles of corporate governance is concerned with the rights of shareholders, their responsibilities, and how they can

be treated equitably. The chapter emphasizes the shareholders' rights to accurate and timely information, and the importance of their participation in decision-making and in setting management remuneration. Chapter 3 deals with institutional investors, the stock market, and other intermediaries. The need for institutional investors to act in a fiduciary capacity in company matters is emphasized, and the importance of disclosing information to avoid conflict of interest with proxy advisers, analysts, brokers, and rating agencies.

Chapter 4 of the OECD principles of corporate governance focused on the role of stakeholders in a firm's corporate governance. Active cooperation between firms and stakeholders is to be encouraged. Firms must respect the rights of stakeholders recognized by law. Corporations must also give access to timely and accurate information to all stakeholders. Chapter 5 details key areas of disclosure: Financial and operating results, company objectives, remuneration, ownership structure, related party transactions, and risk factors affecting the firm. Finally, Chapter 6 focuses on the responsibility of the board. Key functions of the board include a review of corporate strategy, selecting competent and effective CEOs, overseeing major acquisitions and divestiture, and reviewing the firm's risk management procedures. Other duties include ensuring the integrity of accounting and financial reporting, tax planning, selecting and supervising board committees, and board evaluation and training (OECD, 2015).

I have reviewed the history, attributes, and the principles that guide corporate governance codes and implementation in publicly listed firms. A close look at the different principles shows that a common thread runs through the provisions. Foremost is the power of the board to shape whatever happens in a corporation. When shareholders are widely dispersed, the board is charged with the responsibility of directing the affairs of the firm by establishing control and monitoring the top managers through various tools such as the use of committees, reviewing the company's performance, hiring the best professional managers for the top jobs, and disciplining erring managers. But in practice, some boards are manipulated by powerful CEOs, which is the reason why the law and codes of corporate governance call for a fully independent board of directors for public companies and for separating the position of the chair of the board from that of the CEO (El-Faitouri, 2014; Lin, Hutchinson, & Percy, 2015; Mehrotra, 2016).

The Effect of Conflict of Interest on Firm Performance

The professional managers act as the agents of the shareholders who are the owners of the firm. Being a paid agent, the manager could not be expected to devote as much time, commitment, and diligence to the company's affairs as the owners (Smith, 2003). The separation of ownership from control is the primary cause of agency problems and its associated costs. Some managers exploit the situation to self-deal and make considerable gains for themselves, using price-

sensitive information in their possession. Other managers pressure a weak board to award huge compensation to them, higher than what the firm's complexity and performance justifies, and far above the industry average. Some other ways in which the conflict of interest manifests itself in a firm are when managers post huge short-term but unsustainable profits that could lead to massive losses in the future. Another is when managers delay a strategic investment that may affect short-term profit but which is good for the long-term survival and growth of the company. Top management is prone to taking bad risks if their remuneration is linked to short-term profit performance and a board that does not spell out what is an acceptable and unacceptable risk (Cybinski & Windsor, 2013).

Perhaps the best example of the conflict arises during takeover battles and merger and acquisitions negotiations. Ordinarily, the directors should advise the shareholders objectively, disclosing their relationship with the bidders, the merit of the proposal, and what shareholders should do given the information at the managers' disposal. The managers and directors should act in the best interests of the firm and the shareholders. Gu and Hackbarth (2013) has stated that, although governance and transparency are complements and positively and significantly associated with firm performance, transparent firms are much more susceptible to takeover than less transparent ones. But Quttainah (2015) stated that antitakeover provisions are injurious to shareholders' wealth. If anti-takeover provisions

damage shareholders wealth, then their presence in the articles of corporations is a sign of weak corporate governance (Bebchuck, Cohen, & Ferrell, 2009). Bhagat and Bolton (2013) also found a negative and significant association between return on assets and the G-Index (Gompers, Ishii, & Metrick, 2003). This indicates that the higher the scores on the G-index, the weaker the corporate governance practice, and the lower the firm's return on assets.

Some of the financially hurtful managerial actions in takeover situations are greenmail, where managers buy the potential acquirers' shares at a higher amount than the proposed price; golden parachute, where employment contract are drawn up to guarantee a lump sum or cash flow over a period when a manager loses his job as a result of hostile takeover; poison pills, a cash flow right or other benefits triggered by a hostile takeover; and overpaying for acquisitions. All these actions are detrimental to the wealth-maximizing objective of shareholders, and overpayment for acquisitions directly hurts them because wealth is being transferred from the vendors to the acquirers. Transparency and objectivity are important. But as Gu and Hackbarth (2013) found, transparent firms are more prone to takeovers because the acquirer is more confident of the value of the company and they will get adequate value for what they paid. The art of corporate governance practice is for managers to know the essential information to disclose to company stakeholders without compromising trade secrets.

Conflict between Managers' Attitude to Risk and Shareholders' Need to Embrace Risk

Risks are the perfect partner of opportunity. Instead of running from risk, business managers should embrace and exploit it. Sensible risk-taking not only gives short-term profit, but it also gives the firm sustainable long-term growth and survival. To embrace risk, managers must understand, assess, measure, and dimension every aspect of a decision. Exploitation of risk requires patience, deliberation, and hard work. Managers and analysts may be impatient for the result of risk-taking, which may exacerbate the conflict of interest between managers and shareholders. As Shank et al. (2013) observed, the governance-stock performance is better studied over the long-term, as the outcomes of a risk-aversion or risk-seeking attitude can be fully assessed over the long period.

To make substantial and long-term sustainable profit, firms must take risks in marketing; manufacturing innovation; research and development; investment in property, plant, and equipment; expanding overseas; and innovation in management, operations, and control systems. All these actions are risky, and many come with a trade-off with the current period's profit with which managers are judged, and the long-term profitability, which ensures survival and increase in share price. Instead of investing for the long-term and running the risk of failure or termination of employment due to perceived nonperformance, managers may

devote considerable attention to short-term profit at the expense of long-term sustainable profit and growth.

Nowhere else is the tradeoff between short-term profit and long-term growth and survival more evident and pronounced than in funding research and development. Managers may delay research and development (R&D) expenditures to meet profit and sales forecast, which may hurt shareholders in the long run. El-Faitouri (2014) noted a negative and significant association between changes in R&D spending and Tobin's Q, meaning that a reduction in research and development expenditure will improve performance, but only in the short-term, but hurt long-term profitability. The tremendous growth and profitability of pharmaceutical and other companies and the amount they devote to research and development is a clear testimony. Jermias and Gani (2014) reported a positive and significant correlation between growth opportunity (R&D/Sales) and firm performance.

Shortterm Profit versus Longterm Sustainable Performance

The theory that financial markets are efficient and make a good judgment of true value of firms may not be so in practice, and certainly not in all cases. There is evidence that managers hide information from the shareholders (Page, 2005). Managers may also conceal or delay bad news to achieve a particular objective, like cashing in on their stock options before releasing damaging information about the firm. Untrue and fraudulent information is also common. It is in the

interest of managers to exploit their information advantage, and to give out untrue and fraudulent information to achieve their short-term interests to the detriment of shareholders' long-term goals. In the long-term, the agency mentality of the managers will end up hurting them. A lackluster performance compared with what the market expects could well mean that the managers will lose their jobs or a smarter corporate raider will acquire the company. Dah (2016) reported a significant and positive association between industry turnover and firm value from the data obtained from RiskMetrics, Compusat, and ExecuComp from 2001 to 2009.

Conflict of Interest between Shareholders and Managers

The shareholders are the real risk-takers. They put equity or risk capital in the firm and hope to make substantial profit and capital gains if all goes well. They also stand to lose everything if the unexpected happens. In theory, shareholders ought to have significant and overriding influence and control over managers. According to Page (2005), the preferred corporate governance model is the one that places the interests of shareholders above those of other stakeholders in a capitalist society. In practice, what obtains is radically different from this commonsense view.

While it is indisputable that shareholders' power is a result of law, contract, and informal rules, the board and management most often have absolute power over

the affairs of the firms. First, stockholders are usually widely dispersed and may not have the time, information, or willingness to form a critical mass to challenge the directors. Secondly, management has a clear advantage; being in possession of superior information and proxy powers, they could use the leverage to oppress the shareholders. Thirdly, even though shareholders' activism is becoming established in corporate governance, what often happens in real life is for large stockholders to sell off their entire shareholding when dissatisfied with the way managers run the firm rather than challenging the status quo.

Conflict of interest Between Shareholders and Bondholders

Bondholders are creditors of the company, and whether the company makes a profit or not, they have to be paid interest due on the debt and, eventually, the original loan. The debt covenants usually require firms to do or abstain from doing certain things, such as the prohibition to sell a property or relocate a business or merge with another firm without the creditors' permission. In good times, these conditions are easily met, especially the payment of interest or repayment of principal. But in bad times, leverage becomes very burdensome and risky, and keeping to the agreements difficult. During economically difficult times, the bondholders have a bigger voice in the organization.

In theory, there should be no conflict of interest between the shareholders and the bondholders. The availability of debt in a firm's capital structure is good for the

company. In many jurisdictions, the cost of debt is tax-deductible, and the effect is to lower the cost of funds and improve the bottom line. The downside is that overleveraged firms have more difficulty borrowing further, and when the debt/equity ratio rises, the cost of capital increases, as creditors demand more risk premium. Not all research findings found support for the relationship between leverage and firm performance. Al-Najjar (2014) and Arora and Sharma (2015) reported no or weak support for the relationship between leverage and firm performance. Al-Najjar (2014) did not find any relationship between leverage and firm performance in Tunisian companies, but this may be limited to the specialized tourism industry investigated and the country where the inquiry was done.

In practice, a conflict of interest arises when shareholders, through the managers, take on more risky ventures that bondholders perceive as a danger to their investment. Firms may also borrow excessively on the same assets or sell mortgaged properties without the knowledge or permission of the debt holders. Also, managers can exploit a bad economic condition to obtain more private benefits, hurting both the bondholders and shareholders (Dah, 2016).

Conflict of Interest between Firms and Society

It used to be assumed that what was good for business was also good for the society. The industrial revolution and the industries that were established in its

wake raised the living standards of the people of England, which then spread around the world. The concerns today are different. Substantial progress in the reduction of poverty and want allows people to devote more time and attention to global warming, environmental degradation caused by industrial activities, the gap between the rich and poor, exhaustion of natural raw materials, the intergenerational inequity, and the limits to harmful scientific advances. Themes such as stem cell research, artificial contraceptives, transgender issues, assisted suicide, genetically modified foods, and many other concerns, all made possible by advances in technology, are generating fierce debates in the society.

For example, the decision of Valeant to increase its drug prices to recoup research and development expenditure backfired and resulted in the sacking of the firm's CEO. The company's business model was not only attacked in the media, but the firm was also seen as the ugly and unacceptable face of capitalism. The company's pricing strategy was considered inhuman; it generated political storms, with Hilary Clinton, the U.S. Democratic Party presidential nominee quoted as saying, "I'm going after them" (*The Economist*, 2016). The U.S. Senate also invited the management of the company to appear before it. As businesses expand and affect the whole society, unsavory business practices will continue to be attacked. Business managers must realize that members of the society are not just shareholders and providers of various services to business, but are also the

consumers of firms' products and services. The business world must not only listen to their voices, but also anticipate their reaction to strategic initiatives, products and service offerings, race and gender equality, and the treatment of those that physically challenged.

There is little doubt that industrial and scientific activities, though beneficial, have costs associated with them. And society, ultimately, bears those costs. This is because there is no way the societal costs can reasonably be traced and charged to any firm in particular. Collectively, the society has to pay from the commonwealth. Another challenge is that the decision from thousands of firms often creates costs, which is difficult, and sometimes impossible to quantify. These social costs are created by firms but paid by everyone in the society. Some may argue that the tax paid by firms is adequate and sufficient for the central government to solve the problems of the common costs. The proportionate tax on profits is arbitrarily fixed by law and in no way represent an equitable distribution to firms of the cost incurred in polluting the environment or in causing other harms.

Major Areas of Focus in Corporate Governance Research

Agency problems arise whenever a principal mandates an agent to carry out specified activities on his or her behalf. The agent sometimes exceeds the terms of his engagement or performs so woefully as to cause losses to the principal.

Although the problems predated the establishment of the joint-stock companies, the focus and attention of modern day research are on the problems in business organizations that arise when ownership is separated from control. In any relationship where there is cooperation or a joint effort, even though strict principal-agent relationship does not exist, there are agency problems lurking somewhere in the background (Jensen & Meckling, 1976).

Agency problems are important research focus because there are costs associated with them. According to Jensen and Meckling (1976), agency costs are the sum of the cost of observing and controlling the agent's behavior. Firms try to control agents' behavior by instituting controls such as budget and expenditure restrictions, policies based on a cap on compensation, audit and internal control systems, operating rules, and strict supervision. Jensen and Meckling stated that there are other residual costs that may be difficult to measure or quantify. For example, there is a cost incurred whenever the agent's decision diverges from those that maximizes the principal's welfare. To minimize the cost of agency, and to more closely align the principal's objectives to those of the agent, research has focused on several corporate governance mechanisms and principles. In this section of the dissertation study, I will focus on the board of directors, shareholders' rights, executive compensation, audit oversight, and committees.

The Board of Directors

The board of directors is the organ of the business. In a large corporation, the shareholders are widely dispersed and do not have the time and professional competence to manage the business. Professional managers are employed to run the firm on a day-to-day basis, reporting to a board of directors as frequently as possible. The boards of directors, the members of which have been appointed in a general meeting by the shareholders or appointed by the board to fill a temporary vacancy, are put in charge to monitor the activities of the company and the behavior of the managers, and report on the stewardship of both to the shareholders at an annual general meeting.

It would seem that the shareholders exercise considerable control over the affairs of their companies. The nature of this control is not only ambiguous and illusory, but may have been overstated as well. The fact is that the controls shareholders exercise over their corporations have been weakened over the years by the wide dispersion of share ownership, the lack of time and experience to devote to company affairs by the owners, and the absolute control directors have over proxy votes and other key decisions in the company. The current reality is that in the major companies in America and Europe, shareholder control have been severely weakened and significantly reduced because of the forces referred to above.

The SOX and the OECD principles of corporate governance lay much emphasis on the duties of directors, the leadership of the board, board independence, and the role of the committees. Both in America, Europe, and the emerging markets, corporate law and governance principles focus attention on the directors who are the representatives of the shareholders, holding the individuals constituting the board of directors accountable, not only to the shareholders but to all stakeholders. This century-old governance arrangement is still the best we have, and a better alternative has not been found for the Anglo-Saxon model. The German and Japanese model, a two-tier board, is a variant of the one-tier board of the British-American model, where a supervisory board is sandwiched between the regular board and the management. The two-tier model is not without its difficulties, especially that of coordination and lack of unity of command.

Board leadership. Board leadership refers to how the board is structured to deliver on its objectives. Both the BRT and OECD corporate governance principles favor a board structure in which the role of the CEO is separated from that of the chairperson. If the roles are combined, it is recommended that a leader-director, who is selected from independent members of the board, be appointed. The leader-director will be a senior member of the board and will function to minimize some of the considerable power the chairperson/CEO wields. Combining the positions of chair and CEO, named CEO duality, without the

necessary safeguards may affect the functioning of the board and the firm. Zona (2016) discovered a positive and significant association between a firm's research and development intensity and CEO duality. But Bhagat and Bolton (2013) reported a negative and significant association between CEO duality and ROA. In takeover situations, CEO duality may lead to wrong and self-serving advice from the board to the shareholders. Bhagat and Bolton (2013) and Knockaert, Bjornali, and Erikson (2015) noted a negative and significant relationship between CEO duality and firm performance. Knockaert et al. reported a negative and significant association between CEO duality and board service involvement. It means that a powerful CEO somehow prevents the board members to get involved in the firm's affairs, leading to poor company performance. Bhagat and Bolton documented a negative and significant relationship between CEO duality and the E-index, the entrenchment index, that is an abridged version of the G-index (Gompers et al., 2003). Not all researchers found a negative association between these variables. Rashid and Islam (2013) reported that CEO duality affects performance, but too many market imperfections limit the explanatory power of the variables in Malaysia, an emerging economy.

Board size. There is no absolute size for a board of directors. The appropriate size depends on many factors such as the size of the firm, the complexity of its operations, the experience of its members, and the age of the company since

incorporation. Size could be both a strength and liability for the company. The bigger the size of the board, the more likely is the experience and quality of the members of the board, and the greater its diversity. Unwieldy size would increase bottlenecks, bureaucracy, and bickering in the board of directors, and slows down decisions that may adversely affect performance. Research findings have revealed positive and significant associations between board size and performance, measured by Tobin's Q, return on assets, and return on capital employed (Kouki & Guizani, 2015; Xie & Fukumoto, 2013).

Other research findings reported a negative and significant association between performance and board size (Jermias & Gani, 2014; Nath, Islam, & Saha, 2015). Knockaert et al. (2015) stated that board size did not moderate the relationship between top management team and board service involvement in Norwegian universities and public research institutes. This means that board size has no effect on the involvement of the members of the board in the affairs of the institutions. White, Woidtker, Black, and Schweitzer (2014) also posited that the likelihood of appointing a business expert unto the board decreases with the size of the board.

Board independence. If the board is to control, advice, and monitor the behavior of managers, the independence of each member cannot be compromised. While the corporate governance principles call for formal independence, independence is

essentially an attitude of mind. For the board to be seen as formally independent, the majority of the members must not be past or present employees of the firm, or employees of a significant shareholder, who owns 5% or more of the ordinary stock of the company, or the relatives of present or past director, past auditor, or a large shareholder (Quttainah, 2015; Tai et al., 2013). Independence of the board has a significant effect on the quality of board deliberations, the power of its recommendations, the impact of its controls on the CEO and entire management, and the extent of its contribution to the firm's strategic planning agenda. Some research findings suggested that the impact of board independence on firm performance is situation-specific. Bhagat and Bolton (2013) noted that board independence was negatively associated with return on assets pre-2002, before the passage of SOX of 2002, and positively associated post-2002, after the passage of the Act.

Dah (2016) also reported board independence and management entrenchment positive and significant post-SOX. The independence of the board was weaker before the Act of 2002 was passed, as it was the tradition at the time for the board, and especially the CEO, to handpick directors loyal to them. The various research findings were mixed. Sun, Lan, and Ma (2014) discovered a weaker association between board independence and firm performance post-SOX of 2002. But Adewuyi and Olowookere (2013) noted the increase in the proportion of outside,

independent directors, was associated with good corporate governance change. Liu et al. (2015) and Leung et al. (2015) reported a positive and significant relationship between board independence and firm performance. Also, Liu et al. (2015) documented a positive association between board independence and organizational performance. Sun at al., (2014) found board independence negatively and significantly associated with firm performance before the SOX Act of 2002.

Board diversity. Board diversity refers to the number of female directors on the board. For several decades, men dominated boards of directors in Europe and the US. But the situation is changing as research into board structure confirms the advantages of having women on board. Women constitute a large percentage of the work force, and many pursue careers in management, engineering, and in other fields of human endeavor. Women also buy firms' products for themselves and the entire household. It stands to good reason that women's views and voices are essential and needed on the board of directors. Lucas-Perez, Minguez-Vera, Baixauli-Solar, Martin-Ugedo, and Sanchez-Marin (2014) reported a positive and significant association between women on board and the variable pay of managers. An equitable payment structure increases employees' satisfaction, which may enhance their loyalty and firm performance. Isidro and Sobral (2015) reported no statistical evidence of a direct relationship between women on board

and the value of the firm, but a positive and significant association between firm performance and the indirect effect of women on the board of directors.

Board meetings. The members of the board of directors typically meet once in a quarter to deliberate on the progress of the company. Meetings may be more frequent during an economic crisis and when takeover battles are being fought. Corporate governance principles lay emphasis on attendance at meetings and making positive and objective contributions as board and committee members. The board is charged with the responsibility of overseeing the firm's strategic planning, the risk management process, the audit function, and top management remuneration. These tasks are accomplished during meetings of the members of the board. Board meetings represent a major part of corporate life where decisions on the vision and strategy of the firm take place.

The frequency of these meetings, the quality of the deliberations in them, and the positive impact on organizational management of the decision taken in them, have far reaching effects on corporate performance. Al-Matar et al. (2014) documented a positive and significant association between board's frequency of meetings and Tobin's Q. Sahu and Manna (2013) also discovered a positive and significant association between board meetings and annual stock returns, net profit, and market value added (MVA). Pugliese et al. (2014) found board monitoring to be positively and significantly associated with the past performance of firms. Mishra

and Mohanty (2013) also found that board effectiveness improves return on assets. While a well-planned and productive meetings increase board monitoring and effectiveness, an unproductive meeting or meetings that only rubber-stamp CEO's proposals would likely have a negative impact on profitability and corporate value. Many researchers have found a negative and significant relationship between the number of board meetings and firm performance (Jermias & Gani, 2014; Mehrotra, 2016). An unproductive meeting could well lead to weaker company valuation (Jermias & Gani, 2016).

Shareholders' Rights

The shareholders, being the owners of the business, ought to have control over the affairs of the firm through their appointed representatives. Sometimes, the control may be more apparent than real. The rights of the shareholders are enshrined in the company's law and the articles of the association of the firm. But due to the inability of the shareholders to exercise adequate controls over the affairs of the company, the power to force the directors to do what is in the stockowners' interests are severely curtailed.

The legal model in most countries has always regarded the shareholders' interests as exclusive and supreme, all other rights and interests in the firm are satisfied at their pleasure. But these rights and privileges may not be more apparent than real in practice. Shareholders are widely dispersed, and they neither have the time nor

the experience to manage the business. They employ managers who are more interested in self-interest and self-preservation. Even the board of directors appointed to monitor the managers may do a poor job and may not devote enough time and attention to the affairs of the business. The law still upholds the supremacy of shareholders' right: Anything the firm does should be in the furtherance of the objective to maximize returns to the stockholders. The American case of Dodge v. Ford Motor Co. (1919) succinctly illustrated this point. The court held that it was wrong for the management to limit dividend payments to the shareholders by lowering the price of their cars to increase employment and spread the benefits to employees (Richardson, 2002).

Seeing the futility of the strict application of the legal model in the modern firm, the corporate governance model recognizes other important actors beside the shareholders. Even within the shareholders as a group, there are challenges. For example, the Companies and Allied Matters Act of 2009 in Nigeria gives majority shareholders the right to buy off minority shareholders in a hostile takeover after certain conditions have been met. Rashid and Islam (2013) noted that majority shareholders sometimes expropriate minority shareholders in Malaysia. Francis, Hassan, and Wu (2013) stated that cumulative stock returns to be significantly and positively associated with accounting conservatism that may benefit the shareholders but harm the interest of other stakeholders.

In summary, the directors are required by law to maximize the interest of shareholders, the interests being defined purely in financial terms. In looking exclusively after the interests of the shareholders, managers seek to maximize the value of the firm, after satisfying all claims, such as those of creditors, finance providers, employees' agreed wages, and costs of other inputs and services. In other words, maximizing the value of the company is equivalent to profit maximization. Whatever the managers do should, theoretically, contribute to the profit maximization objective since the stock market is assumed to be efficient by theory of Efficient Market Hypothesis (EMH). The wealth of shareholders is rarely maximized because markets are not efficient in the strong sense. Also, information exists that is known only to company managers and markets cannot take account of this in pricing the shares. Other institutional arrangements, like entrenched CEOs, large shareholders, and proxy votes may also impact company performance and wealth maximization.

Executive Compensation

The board of directors determines the firm's executive compensation, which may be a combination of cash and stock options. The remuneration of the top management should be high enough to attract the smartest and the most able applicant to the company, but not too high that it may amount to unfair exploitation of the shareholders, but also not woefully inadequate as to deter good

applicants. Executive compensation should reflect the complexity and risk of an employee's duty and the expected performance targets. The performance goals must be meaningful and achievable and should not be perceived as punitive. Usually the board's remuneration committee decides on executive compensation and takes their recommendations to the board for approval.

Alves, Couto, and Francisco (2016) found the presence of a remuneration committee in a firm positively and significantly associated with CEO pay in Portugal. This means that executive pay tends to increase with the presence of a remuneration committee. Al-Matar et al. (2014) documented a positive but nonsignificant relationship between executive compensation and firm performance. Sila, Gonzalez, and Hagendiorff (2016) discovered no evidence of a relationship between the proportion of female directors and executive compensation. Alves et al. (2016) reported a negative and significant association between independent members of the board and CEO remuneration. Independent members of the board tend to reduce the total remuneration paid of the company's CEO. This may be good or bad for the company depending on the industry practice in a particular context and the impact of executive pay in attracting talents to the organization.

Audit Oversight

The law requires that a company should prepare its financial statements and have it audited at least once a year. It is also a requirement for all public companies to have the account and other reports read out to the shareholders in an annual general meeting. For example, the Nigeria's Companies and Allied Matters Act of 2009, in Sections 357 to 369 set out the rules for the appointment of auditors, their qualifications, remuneration, duties and powers, attendance at the annual general meetings, and resignation. The codes of corporate governance in Nigeria and the Nigeria's Financial Reporting Council (FRC) make it mandatory for the board to oversee the work of the auditors. In the U.S., the PCAOB established under the SOX is a government agency that performs the same function for public companies.

The oversight function of the board with regard to the audit of the financial statements is discharged through the audit committee of the board. The BRT principles of corporate governance require that audit committee be composed entirely of independent directors and with at least three members. At least one of the members must be an expert in finance and accounting. Information for decision-making is important to all of the company's stakeholders. The shareholders, the financial analysts, the creditors, and the bondholders all need information to make informed decisions. The Cadbury Committee on the

Financial Aspects of Corporate Governance noted that the weakness in the financial reporting arose from the use of different accounting methods applied to what are essentially the same transactions in different companies (The Cadbury Committee, 1990).

To prevent accounting irregularities and fraud, like using off-balance sheet and special purpose vehicles to hide losses as was done in Enron and many other companies, the board through the audit committee must supervise the auditors. This is done by reviewing the audit plan, attending to auditors' queries, and asking managers to provide timely and accurate response to the auditors' enquiries. The committee must also review key areas of financial disclosure, operating results, related party transactions, and risk factors as highlighted in the financial statements.

Audit committees, no matter the degree of their independence and proficiency, cannot completely prevent audit failures or eliminate accounting fraud in its entirety. The primary responsibility of auditors is to report to members, but in practice, auditors are appointed by the shareholders on the recommendation of the directors, who are also empowered by the members at the annual general meeting to fix the auditor's remuneration. This arrangement, although convenient and efficient, is highly unsatisfactory. The loyalty of the auditors most of the time is to

the members of the board, and if other services are provided, like consultancy and special reviews, the loyalty may be total, stumping all other safeguards.

The Enron scandal and the collapse of its auditors, Arthur Andersen, may be seen as a leadership failure or as a clannish organizational culture taken too far; but the signs were all there to see if one looked well enough (Carter & Greer, 2013). Arthur Andersen provided Enron with audit and several other financial services. The closeness between the directors of Enron and the partners of the accounting firm did not allow a healthy skepticism that auditors should have, and the caution they should take in arriving at their audit opinion (Pugliese et al. 2014). The board of Enron failed to oversee the work of the auditors, and the audit committee did not exercise the required due diligence.

In Nigeria and many other countries, the auditors are required specifically to introduce a paragraph in their audit report on the respective responsibilities of auditors and directors. While the directors are responsible for the preparation of the financial statements, the duty of the auditors is to form an opinion on the accounts and reports as prepared and presented by the directors. Nevertheless, most directors in Nigeria do not behave as if they understand the import of these statements.

Committees

Board time is limited, and there are many issues that cannot be comprehensively deliberated upon in a full board meeting. A committee is the most efficient and effective forum to discuss matters in-depth and find solutions to the company's problems. In this dissertation study, I will highlight the work of the audit, compensation, and nomination committees. These are the subcommittees of the board, and their reports go to it for approval and action.

Audit committee. The audit committee is a subcommittee of the board. The BRT principles of good corporate governance require that at least three independent directors be appointed to the committee, who are experienced and knowledgeable about the business. In Nigeria, the law requires six members, at least three of who will be independent, representing the shareholders. An independent director will be nominated as the chairperson. At least one of the members of the committee must be a financial or an accounting expert. The committee recommends to the board the selection and retention of the external auditors, deliberates on an ongoing basis the independence of the auditors, oversees the critical aspects of the firm's accounting and disclosure requirements, and carries out risk assessment and procedures of the firm. Other functions of the audit committee are oversight of the system of internal controls in the company, disaster recovery readiness procedures, and internal audit function. A direct communication between the

committee and the chief internal auditor is also desired and recommended. The committee should also deliberate on the merit and demerits of hiring former auditors and their staff and the potential conflict of interest this recruitment may entail.

Audit committee independence, number of meetings, and size. Hassan and Naser (2013) noted a negative association between the proportion of independent members of the audit committee and audit fees. The size of the audit committee, if unwieldy, may affect the performance of the firm by making the meetings a forum for arguments and nothing else. Jermias and Gani (2014) documented that the size and number of meetings of the audit committee had a negative and significant association with Tobin's Q. On the other hand, Leung et al. (2014) noted that the effect of family ownership on the relationship between audit committee independence and performance of family firms mixed.

Compensation committee. This subcommittee of the board should, ideally, be composed of nonexecutive and independent directors only. They duty of the committee is to address the firm's compensation and remuneration issues. The committee, according to the BRT's recommendations should (a) oversee every aspect of remuneration and compensation structure in the firm, (b) recommend to the board the appropriate performance goals against which top management should be judged, (c) put systems and procedures in place to link remuneration

with goals, (d) ensure that part of the remuneration of directors and senior managers are performance-driven and that the rules are clear and fair, (e) establish goals that are meaningful, objective, and easy to measure, (f) be aware of incentives that may lead to dysfunctional behaviors, (g) understand all aspects of executive compensation, taking into account industry standards, (h) attempt to link the interest of managers to those of shareholders through compensation packages, and (i) advise the board and the auditors on disclosure aspects of executive compensation (The BRT, 2015).

Nomination committee. The nomination committee should have at least three directors and the members must be external directors who are independent from the firm (BRT, 2015). The committee deals with the important subjects of nominations to the board of directors and other corporate governance matters. The work of the committee sometimes overlaps with that of the compensation committee. The directors are recognized in law and practice as the organ of the business, and are made responsible for the acts of their firms. They also set the agenda for the company, determine its strategy and determine how they want customers, suppliers, financiers, and the general public to perceive the firm and its activities.

It is important to carefully select men and women who will occupy this position from time to time. The duties of the committee are (a) recommend to the board

persons who are qualified both academically and ethically for board nomination (b) study the composition, structure, and independence of the board and make recommendations, (c) oversee the firm's top management succession planning and ensure that it is adequate and appropriate to the needs of the firm, (f) ensure the board continues to play a leadership role in the firm, monitor and safeguard the integrity and independence of the board, (e) review the board's policies and procedures, (f) review the relationship between the firm and its stakeholders to ensure the later are treated fairly and equitably, and (g) ensure good working relationship between the chairman of the board, the CEO, and other directors.

Financial Performance

The overriding objective of a business is to maximize the wealth of its shareholders. Maximization of the wealth of the shareholders means the firm will make adequate and sustainable profit, generate enough cash flow to run the operations, pay dividends, and retain the rest for research and development and future investment. A firm's financial performance continues to be the yardstick for measuring the efficiency of management and the effectiveness of the use of corporate assets. Any other objective of the firm is subordinate to the financial objectives because the business must survive and thrive to compensate employees, contribute to the community, and pay taxes.

The wealth or profit maximization objective of the firm has come under severe criticisms. According to Jensen and Meckling (1982), many commentators have accused corporations for several antisocial activities in the guise of profit maximization, including behaving irresponsibly, using excessive profit to bribe government officials, polluting the environment, destabilizing foreign governments, and discriminating when hiring, especially against women, minorities, and the disabled. As Smith (2003) stated, making profit is ethical and justifiable. Friedman (1970) stated that the social responsibility of business is to make profit, without it investors will not put in their money and take the risks that they will be compensated with adequate returns. The profit maximization philosophy is only considered from the point of view of economic efficiency, but social welfare maximization theory states that individuals are free to pursue other interests apart from maximization of wealth. Nevertheless, companies are appraised and rated first and foremost on their financial performance. The financial performance metrics that will be examined in this section of the dissertation are ROA, ROCE, and Tobin's Q. These are the performance measures that will be used in the analysis of the results.

Return on Assets (ROA). ROA measures the efficiency with which an asset is used during the period. It is through the assets that a company generates its profit. Baulkaran (2014) defined return on assets as the ratio of EBITD and the total

assets of the firm. Some analysts prefer this measurement due to its neutrality to tax and depreciation treatments, and the company's source of financing, whether debt or equity. Liu et al. (2015) defined return on assets as operating income before extraordinary income divided by total assets. Extraordinary incomes are not recurrent by nature; they do not arise from normal operations. An example of income of an extraordinary nature is a gain from sale or divestment of a business or compensation paid to a company by a foreign government that expropriated its assets. Extraordinary items are not recurrent, they are once off; including them in the computation of return on assets will make comparison between one period and the other difficult. The ratio will not be comparable to that of other firms, which do not have the same extraordinary income during the period.

Many empirical accounting studies have focused on earnings research, investigating the association between corporate governance mechanisms and return on assets (Adewuyi & Olowookere, 2013; Alipour, 2013; Dalwai, Basirudden, & Rasid, 2015). But as Mattessich (1995) remarked, accounting ratios like return on assets are not without problems. First of all, the extent to which management can manipulate earnings depends on whether they can select accounting methods to manage earnings without problems from the auditors. Secondly, earnings announcements have information content that the market rely on, and when those earnings figures are not in line with forecasts, the market

reacts in a negative way, which may lower the share price and the value of the company. The IFRS and the accountancy bodies have imposed uniform accounting rules and treatments for similar transactions in many jurisdictions. This is to ensure that accounting ratios such as return on assets can be relied upon. Audit oversight provided by the audit committees will also reduce the disparity between financial statements of firms reporting similar transactions.

An important consideration is whether the highest degree of ethics has been observed in the preparation of the financial statements from which the researchers compute the ratios. According to Stuart, I., Stuart, B., and Pedersen (2014), the important considerations are (a) when and how the directors recognized revenue in the financial statements, as the amount of revenue recognized should not be below what the directors expect to collect as cash, (b) how the current and long-term liabilities have been recognized and recorded, and (c) whether there was distinction between operating and finance leases. Several other issues affect the figures in the financial statements that have important implications for earnings. Some of these issues are the company's depreciation policy, accounting treatment of defined benefits pension plans, the decision to recognize losses in a subsidiary, treatment of stock options, purchased goodwill accounting, patents and copyright, and restructuring expenses. All these accounting issues have different effects on return on assets.

Schroeder, Clark, and Cathey (2014) remarked that some adjustments are necessary to improve return on assets, such as making adjustments incorporating the effect of off-balance sheet financing. Nevertheless, return on assets is frequently used as a measure of a firm's performance. For example, Chen (2015) discovered that, return on assets, defined as net income standardized by the firm's total assets in the previous year, have a positive but nonsignificant relationship with a firm's access to finance, while negatively and significantly related to private ownership, and positively and non-significantly associated with foreign ownership. Sila, Gonzalez, and Hagendorff (2016) defined return on assets as the earnings before taxation divided by the book value of total assets. Sila et al. (2016) found a negative and significant association between total, systematic, and idiosyncratic risks and return on assets. A firm's return on assets tends to decrease as more risks are taken. The more debts that are added to the firm's capital structure, the higher the risks, and the cost of funding may be so high as to reduce the firm's profit.

Balsmeier, Buchwald, and Stiebale (2014) carried out a research study on German companies on the impact of outside directors on return on assets. Their definition of return on assets was net income after taxes divided by total assets. The earnings figure was taken after corporate tax, and thus the differential tax incidence on firms of similar size and profitability was not considered (Schroeder et al., 2014).

Alipour (2013) documented a negative and significant association between return on assets and ownership structure and state ownership in 60 nonfinancial companies listed on the Tunisian Stock Exchange. Adewuyi and Olowookere (2013) also used return on assets as a measure of corporate performance. They found a positive and significant relationship between a good governance change that is an increase in the number of independent directors and in the independence of the board and audit committees, and splitting the board leadership between the CEO and an independent director as chairperson, and return on assets. The research studies mentioned above and many more like them show that analysts and researchers alike consider return on assets a good measure of corporate performance despite the conceptual and theoretical challenges described above.

Return on Capital Employed (ROCE). Like ROA, ROCE uses earnings as the numerator of the performance ratio. Accountants measure capital employed in a firm in a variety of ways. While some use net assets as the denominator (after deducting current and long-term liabilities from total assets), others include debt and bonds. The classical accounting equation remains assets equals liabilities plus equity. Liabilities and equities make a claim on the enterprise's assets whereas equity is an ownership interest. Liabilities are claims of creditors, some of who receive priority treatment in liquidation and insolvency situations. For decision-making and disclosure purposes, assets, equity, and liabilities are listed separately.

According to the entity theory, there is little to no difference between liabilities and equities (Schroeder et al., 2014). The accounting equation in the entity theory is assets equal equities. Both debt and equities are compensated by interests and dividends respectively, even though dividends are not mandatory and can be deferred or not paid at all, except for cumulative preference shares, but interest on debts is accrued and paid whether or not the firm is making profits.

Under the proprietary theory, the net assets of the firm belong to the owners, the shareholders. The net asset is equal to the equity in the firm, and it is also the equity of the owners, or what is termed as shareholders' funds in Nigeria. The accounting equation under this theory becomes assets less liabilities equal equity. In the preparation of financial statements under the IFRS and the pronouncement of the Auditing Practices Board in their Statement Number 4, "Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises" (Financial Accounting Standards Board (FASB, 1970), the above accounting equation is implicit (Schroeder et al., 2014). Also, the Financial Accounting Standards Board (FASB) in Statements of Accounting Concepts Number 6 defined liabilities and equity in accordance with the propriety theory: Liabilities are future economic benefits given up in exchange for current or past transactions, and equities are the residual interest in assets belonging to the owners after deducting the firm's liabilities (FASB, 1970).

Return on equity is sometimes treated as if it is equivalent to return on capital employed. The book value of equity is different from the book value of capital employed. The capital structure of a firm might include equity and long-term debt, such as bonds, loans, and preference shares. Some preference shares are like long-term debts in all respects and many others are not too different from equity. The accounting treatment is also different, and sometimes, very complicated when preference shares are convertible to equity at the happening of specific events. The trigger for the events that makes conversion possible may be set up by conditions not under the control of management, and thus unpredictable. Return on capital employed measures the efficiency with which the firm uses all of its capital, whether liabilities or equity.

Return on capital employed, as defined in this study, equals EBITDA divided by the total capital employed. EBITDA does not take account of debt levels and taxes, which will be different from firm to firm. Total capital employed is a combination of equity and long-term debt in the capital structure of the firm. The return on capital employed measures the results of operations relative to the amount of capital used in generating the earnings. Compared to return on assets, return on capital may be a more appropriate measure for investors that desire to beat the market.

Return on capital employed and return on equity have been used as measures of company performance in research studies. The return on equity considers only the returns to shareholders without considering creditors. Where there is no debt in a corporation, the two measures give the same answer. The ratio will be lower the more debt is in the capital structure of the firm. Sun et al. (2014) documented a positive and significant association between return on equity and the growth in Gross Domestic Product (GDP). Whaba (2013) also reported a positive and significant relationship between CEO duality and return on equity. Alipour (2013) found a negative and significant association between ownership concentration and return on equity in companies listed on the Tehran Stock Exchange. What these research findings show is that the measures of firm performance have a lot in common, and they are essentially measuring the same things, although from different conceptual and theoretical viewpoints.

Tobin's Q. Tobin's Q ratio was named after the great James Tobin, the Yale University Nobel Prize winner in economics who stated that the cost of replacement of a firm's assets is about the same value as its market value. The ratio is equal to the market value of the company's equity divided by the cost of replacement of its tangible fixed assets, that is the market value of the installed capacity divided by the replacement cost of the installed capacity. According to the Efficient Market Hypothesis (EMH), the price of securities fully reflects all

publicly available information. If the EMH is valid in the strong sense, the Q ratio should hover around one, and any increase above and decrease below one will quickly be brought to equilibrium by market forces. But as Scott (2009) noted, share prices may not fully react to financial information immediately, and abnormal securities prices may prevail for some time. Market imperfection could cause information in the financial statements to be interpreted incorrectly, leading to opportunity for arbitrage.

Any value of the Q ratio above one means the firm is efficiently utilizing its assets and should buy more to increase shareholder's wealth. A ratio less than one signals to management or a predator that the company is undervalued and a candidate for a takeover. Some analysts have attacked the theoretical basis and assumptions of Tobin's concept. Roche (2015) stated that there are problems associated with determining the replacement cost of assets, and many analysts assume the book value should be a close approximation. In a highly inflationary economy, this assumption may be incorrect. Lewellen and Badrinath (1997) proposed a better measure of asset replacement costs by properly understanding the purchase history of the assets. For a large corporation, this may be a difficult task. Also, Roche did not believe that a ratio above one indicates overvaluation or undervaluation for a ratio below one: Everything depends on the firm context, and the economy in which the firm is operating.

The rational question is why firms don't act quickly to exploit the differences between the firm's market value and the replacement costs of its assets (Smith, 2015). The reasons are many, but two are the heterogeneity of capital and monopoly rents. According to Powell (2010), capital is not only heterogeneous, but multi-specific as well. The problem for the economists is how the capital can be aggregated and summed together since their value derives from firm-specific intention for the capital goods. A computer may be a capital good if used in a business, but it will be classified as consumption good if used at home for movies and video games. In summary, summing-up and aggregating the monetary costs of these goods will be valid only if the heterogeneous plans of the actors are perfectly coordinated (Powell, 2010). And if a firm can earn monopoly rent with the present investment, there may be no motivation to invest more.

The possibility of monopoly rent is also one of the reasons why firms do not respond quickly or at all to an apparent overvaluation as evidenced by Tobin's Q ratio. According to Harvey (2013), all rents are based on monopoly power. It is the ability to extract excessive value from a consumer based on the uniqueness or scarcity of the product or service. The scarcity or uniqueness could be due to a technical innovation or marketing and advertising power that create an illusion of doing well (Harvey, 2013). Firms may not border much about overvaluation if

they could use scarce resources to create a monopoly situation, sometimes pressurizing governments to achieve this aim (OECD, 2002).

Nevertheless, Tobin's Q is used to evaluate capital expenditure decisions. There has also been an expansion in the use of the ratio in research examining the association between corporate governance and firm performance (Bhagat & Bolton, 2013; Jermias & Gani, 2014; O'Reilly, Caldwell, Christman, & Doerr, 2014). Other uses of Tobin's Q are in evaluating the performance of managers and decisions on divestment.

Baulkaran (2014) defined Tobin's Q as the market value of common and preferred stocks plus the book value of debt divided by the firm's total assets. El-Faitouri (2014) calculated the ratio as total assets minus book value of equity, plus market value of equity, divided by the total assets. In a study of CEOs and board characteristics of Thai family firms, Sitthipongpanich and Polsiri (2015) measured Tobin's Q as the ratio of market value of total assets to book value of total assets. In all these studies, the proxy for the replacement cost of total assets was the book value of total assets. These values may not be the same, and could depend on the economy and the inflation rate prevailing at the time of measurement. Book value of assets also depends on each firm's accounting policies, especially the accounting basis for charging depreciation and amortization.

El-Faitouri (2014) added liabilities to the market of equity in the numerator, agreeing with the propriety theory that holds that the firm belongs to the owners, and the accounting equation then becomes equity plus liabilities equal assets. This is precisely the case in family-controlled firms, especially in developing and emerging countries.

Many researchers considered Tobin's Q as a market-based measurement, different from measures such as return on assets and return on capital employed that are accounting measures of firm performance (Baulkaran, 2014; Bhagat & Bolton, 2013; Sun et al., 2013; Wahba, 2014). Wahba (2014) regarded Tobin's Q and other profitability measures such as return on assets and return on capital employed as complements rather than substitutes, there being no evidence that either type is a better measure than the other, and both types of performance metrics contain useful information about market power, profitability, and efficiency.

Endogenous issues may arise when a market-based measure is used as the outcome variable and investment opportunity is the independent variable (Sun et al., 2013), as a market-based measure focuses on investment opportunity set. For example, a Q ratio below one is a sign to potential investors that the firm is undervalued, and buying it could be profitable. A ratio greater than one, on the

other hand, means the stock is overvalued and it is profitable to sell the stock. Investment opportunity and Tobin's Q are highly correlated.

Baulkaran (2014) noted that voluntary corporate governance best practices lead to higher Tobin's Q ratio in 218 firms quoted on the S&P Toronto Stock Exchange Composite Index. Poutziousis, Savva, and Hadjielias (2014) reported that ownership concentration in firms quoted on the London Stock Exchange (LSE) Financial Times FTSE Index between 1998 and 2008 negatively and significantly associated with Tobin's Q. Alipour (2013) also discovered a negative and significant association between ownership concentration and ROA in the listed companies on the Tehran stock exchange. Alipour documented a positive and significant correlation between ownership concentration and return on equity, which also is a measure of market performance. The research findings in are mixed when the relationship between Tobin's and corporate governance mechanisms were examined.

According to Adewuyi and Olowookere (2013), the shareholding of directors is positively and significantly associated with Tobin's Q. Yeh and Kuo (2015) reported that directors' shareholding to be non-linearly associated with firm performance. Sun et al. (2014) reported a positive and significant relationship between company performance and directors' shareholding, concluding that directors with shares have the required incentive to maximize shareholder value

and firm performance. Yeh (2014) also noted that large shareholders' proposals are positively and significantly related to market value, as the market reacts more favorably to their proposal announcement than those of small shareholders.

Evaluating the Corporate Governance Structure of a Firm

Corporate governance structure needs to be assessed and reviewed periodically to ensure that the mechanisms are still effective and appropriate to the firm. As many researchers have stated, what works are different from firm to firm, from industry to industry, from country to country, and from period to period (Almadi, 2015; Nath, Islam, & Saha, 2015; Poutziouris et al. 2014). To evaluate a firm's corporate governance structure, the analysts use qualitative factors to make a sense of what may not be seen. The elements for analysis are found in documents and declarations, like in financial statements, press releases, conferences, employees' handbook, policy statements, and seminars organized by the company.

The analyst must understand the context of the corporation; including its history, ownership, capital structure, locations, leadership styles, organizational culture, and products and services; as well as research and development activities. These factors play a decisive role in corporate governance systems as they affect the firm's complexity, the type of directors that are attracted to the company, and the issues and challenges the firm faces. Understanding the company context is very

important because corporate governance principles and codes do not have the same impact in all companies in equal measure. The analyst must understand the context of the corporation; including its history, ownership, capital structure, locations, leadership styles, organizational culture, and products and services; as well as research and development activities. These factors play a decisive role in corporate governance systems as they affect the firm's complexity, the type of directors that are attracted to the company, and the issues and challenges the firm faces. Understanding the company context is very important because corporate governance principles and codes do not have the same impact in all companies in equal measure.

Independence of the Board

If the board is not independent, it will function only to rubber-stamp the decisions of management. The analysts must evaluate the leadership structure and composition of the board of directors. Ideally, the majority of the members of the board should be independent, to have the motivation to look critically into the activities of the management (Quttainah, 2015; Tai et al. 2013). The firm's share structure is another area that indicates whether the board is independent or not. If there are multiple voting classes or if some shareholders have more voting power than their cash flow rights, it is an indication that the board may lack independence of action (Eklund, Palmberg, & Wiberg, 2013).

The leadership of the board is another matter for corporate governance analysts to evaluate in determining its degree of independence. The OECD and the BRT principles of corporate governance recommend creating the position of a lead director when the office of the CEO and the chairperson is combined in one person. The danger to the company is that CEO duality may lead to a CEO who will exploit his power to the detriment of the shareholders. Kouki and Guizani (2015), Miller and Yang (2015), and Wahba (2014) reported that CEO duality was negatively and significantly associated with a firm's performance. Poutziouris et al. (2014) found a positive and significant association between CEO duality and company performance. Xie and Fukumoto (2013) did not find any relationship between CEO duality and firm performance non-significant in Japanese companies. The results of these findings have not been consistent in all countries.

Tsai et al. (2013) reported a positive and significant association between board independence and Tobin's Q. The independence of the board increases when the majority of the directors are independent. When a director owns shares in the company, agency theory predicts that the director, being a part owner, will devote his or her attention to the affairs of the firm. Adewuyi and Olowookere (2013) stated that director shareholding and exposure to debt are significantly associated with bad governance changes. The reason for the relationship between the

directors' shareholding and bad governance changes is that directors may use the opportunity of their seat on the board and their considerable shareholding to extract better returns than the cash flow rights to which their share ownership entitles them. Some of the ways directors with significant shareholding exploit their position, such as engaging directly in the company's contracts or using hidden, price-sensitive information, to their advantage. In contrast to Adewuyi and Olowookere Sun and Ma (2014) reported that the coefficient of the interaction between CEO shareholding and investment intensity positive and significant. If the CEO has substantial shareholding, which constitutes a large proportion of his or her investment, it is likely that this will be a motivation to do the best for the company.

No matter the range of experience possessed by the members, the board may need to hire advisers from time to time for consultation regarding legal, ethical, business, environmental, and regulatory issues. The power to hire outside consultants independent of the CEO and management is an indication of the independence of the board. Directors should also be able to meet members of the management, especially the chief internal auditor and the Chief Finance Officer, without the approval of the CEO. The ability to hold meetings and consultations between nonexecutive directors and take decisions is also a measure of the independence of the board of directors.

Accountability of the Board of Directors

The members of the board of directors are the representatives of the shareholders. The relationship between the shareholders and each board member is both legal and contractual. The Companies' Acts in many jurisdictions require each incorporated company to have at least two directors. For example, Section 246 of the Nigeria's Companies and Allied Matters Act (CAMA) of 1990, the main company law in Nigeria, specifies at least two directors for every company incorporated in Nigeria under the Act. If the number should fall below two, the company is given 30 days to appoint another director. The firm should cease doing business if it fails to appoint a director within the stipulated time. In Subsection 3 of Section 246, any director that remains a director for more than 60 days after the number of directors has fallen below the minimum shall be responsible personally for the debt and liabilities of the firm incurred during the entire period when the number of directors falls below the minimum.

The relationship between the directors and the shareholders is also contractual. The directors are appointed because they agree to represent the shareholders on the board of the company, and they are required to follow the terms of their appointment, which clearly set out the remuneration, duty, and other conditions. The law imposes its own duty on the director as well, such as the requirement to

act in a fiduciary manner and attend meetings regularly. The directors owe a duty of accountability, both at law and contract, to the shareholders.

The directors must develop and abide by a formal code of conduct. The code of conduct sets out the standard of ethics that a director must observe in carrying out his or her duties. The standards are common to many firms but the areas of emphasis may be different. The European Investment Bank (EIB) code of conduct for directors includes the basic conduct required of a director, responsibility to the firm, conflict of interest, confidentiality and insider information, acceptance of gifts and other advantages, proper use of company's property, treatment of reimbursable expenses, relations with staff and members of the board, and cooperation with investigating bodies (EIB,2011).

General Mills, a big U.S. food company, has similar codes to EIB, but added that directors should deal fairly with suppliers, creditors, service providers, competitors, and other stakeholders in the firm. Credit Union One, a U.S. financial institution, added to the code of conduct the directors' oversight duty on continuity. This means directors must oversee the firm's strategic planning, capital adequacy, assets and liabilities, succession planning, and directors' continuing education. By reviewing the code of conduct of directors and the level of compliance with it, the analyst would be able to judge the independence with which directors perform their duty of care to the company.

The way directors are compensated is also part of their accountability to the shareholders. Improper use of company information, assets, and a wrongful claim of reimbursable expenses depart from proper accountability and conduct expected of a member of the board. The remuneration of the directors should also be properly disclosed in the financial statements. Proper accountability means going beyond the requirements of the law to include and disclose the benefits-in-kind the directors enjoy.

In Nigeria's listed companies, many of the perks enjoyed by the directors are not disclosed because the law does not require disclosure. Sometimes, the benefits-in-kind significantly exceed the emoluments paid to them. For directors whose total emolument includes performance-based bonuses, the performance metrics ought to be disclosed to ensure accountability. The firm should also disclose directors' related-party transactions, interest in the company's contract, and any criminal proceedings against a director.

Shareholders' Rights

The shareholders employ or appoint directors to act as their agents. Although the interests of other stakeholders are important, the supremacy of the shareholders' objectives in the firm cannot be compromised. In the eyes of the law, the shareholders are the owners of the business, entitled to the firm's residue of assets after every other claim has been satisfied. A good corporate governance system

would treat the interests of shareholders as very important. The rights of shareholders will be enshrined in the corporation's articles of association. In a company where the corporate governance system is strong, a number of provisions will be in the articles of association. The internal rules concerning supermajority votes, proxy voting, greenmail, golden parachute, and poison pills will be part of the code of conduct of directors.

The requirements for supermajority votes. To amend articles of association, approve a merger plan, or change the objects clause of a company, majority votes (50% and above) is usually required. Supermajority votes require an approval from at least 67% to 90% of the shareholders present in the meeting and voting (Investopedia, 2016). This is a good corporate governance mechanism that ensures that weightier issues are decided on by a large number of shareholders.

Proxy voting. In very large corporations, with thousands of shareholders dispersed widely, proxy voting is very important device in giving shareholders that cannot attend a meeting a voice and vote. The disadvantage is that the directors may hijack the proxy machine and get the votes for the outcome that they desire. If a proper and objective outcome is desired, an outsider should handle the process of proxy voting.

Harmful managerial actions. Provisions in the directors' employment contracts like the poison pill (making a company less attractive to a hostile bidder),

greenmail (own share purchase far in excess of what it is worth), and golden parachute (unmerited and large compensation to managers for loss of office if the merger succeeds) are harmful to the interest of the shareholders for two main reasons. One is that provisions such as these have a way of entrenching the directors in their positions, as shareholders become reluctant to oust an ineffective director because of the financial cost of the disengagement. Dah (2016) documented a negative and significant association between firm value and the entrenchment index. The higher the score on the entrenchment index, the smaller the value of the firm. The second reason is that the provisions constitute a technical expropriation of shareholders' assets.

Director Education. The OECD principles of corporate governance require directors to keep abreast of the development in their companies. Director education is important as it enhances a director's contribution to corporate value. Knockaert et al. (2015) reported that the board chair industry experience is positively and significantly associated with board service involvement, which entails monitoring and advising top management and networking. Many researchers have also found that the audit committee is more effective when a finance expert is a member (Ioana & Mariana, 2014; Leung et al., 2014). Director education is also crucial because we live in a fast changing world, the changes being brought about by technological innovation, globalization, complex financial

products, cultural diversity due to migration, and internationalization of tertiary and technical education.

Sources of Information for Corporate Governance Analysis

To evaluate the strength of corporate mechanisms in a firm, the analysts need the following documents and facts:

The website of the firm should contain information about most aspects of corporate governance; including director information, education, other directorships, shareholding, qualifications, and experience; information on leadership of the board; board size; risk management; audit oversight; and committees.

The corporate governance section of annual financial statements.

Company's memorandum, articles of associations, and bylaws.

The annual reports to shareholders concerning the firm's corporate governance processes.

The code of corporate governance concerning the industry to which the company belongs. If listed on a recognized stock exchange, the firm must also comply with the Exchange's code of corporate governance. In Nigeria for example, the Securities and Exchange Commission of Nigeria has a code of corporate governance and the Nigeria Stock Exchange has one as well.

General Websites like those of Business Roundtable, Organization for Economic Cooperation and Development, the World Bank Group, trade groups, stock exchanges, and the professional accounting organizations.

Corporate Governance in Nigeria

Introduction

Nigeria is a developing country, a member of Organization of Petroleum Exporting Countries (OPEC), and one of the largest economies in Africa by gross domestic product (GDP). It has a population of around 200 million people; many of these are literate and speak the English language, a legacy of the British colonial rule. The country is governed centrally from the capital, Abuja, although it has 36 states with elected chief executive officers designated as governors of the states. Politically, it adopts the executive presidency, patterned after the U.S. model, but with less mature democracy and rule of law. There are two legislative houses that make up the national assembly, the Senate and the House of Representatives. The states' laws are made in the States' Houses of Assembly. The laws are only made on the concurrent lists, while the exclusive lists are for the federal government alone. The country has a vibrant judiciary and law enforcement, but these institutions, including the executive branch, are plagued by fraud, corruption, and a fragrant self-dealing and rent seeking culture. The government elected in 2015 won the platform of its declared war on corruption.

The Listed Securities Market on the Nigerian Stock Exchange

The Nigerian government derives 35% of its GDP from its oil producing activities (OPEC, 2015). Apart from oil and gas production, the country has other mineral

deposits such as coal, tin, iron ore, bauxite, and limestone. The rural populace engages in agriculture, although majority of them engages in subsistence farming. At December 31, 2015, 171 equities were listed on the NSE, with total capitalization of $85.3 billion. There were also 15 federal government bonds, 21 corporate bonds, 22 state and municipal bonds, 7 exchange traded products, and two supranational bonds. The companies listed on the Nigerian Stock Exchange were in 12 industrial sectors, including agriculture and agro-allied, conglomerates, construction, real estate, consumer goods, financial services, healthcare, information technology, industrial goods, natural resources, oil and gas, and utilities. This research study will be conducted on all the non-financial companies in the main and premium board that contain 171 listed equities.

The NSE tracks markets and sector performances by indexes, amongst which are the NSE All Share Index, NSE 30 Index, NSE Pension Index, NSE Banking Index, NSE Consumer Goods Index, NSE Industrial Index, NSE Insurance Index, NSE Lotus Industrial Index, NSE Premium Bond Index, NSE Main Board Index, and NSE Alternative Market Index. The main index is the NSE 30 Index. The average daily volume for the last quarter of 2015 was 296.34 million units; average daily traded volume was $13.98 million, translated at the official exchange rate of N199.98 to one U.S. dollar. The market's average price per share to earnings per share (PE ratio) for the listed equities was 17.8; compared with FTSE 250 of 11.2.

The majority of businesses in Nigeria are not publicly listed, and in terms of numbers, the greater percentage are not even registered for many reasons, such as lack of proper education, the need to escape the tax net, and the insignificant nature of the business carried on by these businesspeople. Oyejide and Soyibo (2001) estimated that 13.3% of businesses in the country are not publicly listed, and of the registered companies, only 38% operate in the formal sector. More than 87% of Nigerian businesses carry out their operations outside the rules governing the stock market; such as duty to comply with corporate governance codes and IFRS (Oyejide and Soyibo, 2001).

Between 1995 and 1998, the government owned 8.1% of the companies quoted on the Nigerian Stock Exchange, and domestic investors only 35% (Oyejide & Soyibo, 2001). The shareholding structure is not as diverse as in other nations, and the market is subject to manipulation and dominance by large shareholders and foreign-owned companies. Compliance with corporate governance codes, like the law that governs most activities in the country, is poor.

Enforcement of Corporate Governance Codes in Nigeria

According to Ejavbekpokpo and Esuike (2013), corporate governance in Nigeria is an entirely new concept. Although the CAMA, Banks and Other Financial Institutions Act of 2002 (BOFIA, 2002), as amended, Investments and Securities Act of 1999 (ISA; 1999), and the Securities and Exchange Commission Act of

1988 (SEC; 1988) included many provisions concerning corporate governance practices, the laws are merely in the books but not in action. Enforcement is poor in the country where matters are more often than not settled through quasi-legal means. Also, many investors are only interested in receiving yearly dividends, and because most are widely dispersed and of little education, the directors are in total control of the affairs of the business, and the annual general meetings are usually rigged in their favor.

The enforcement of compliance with corporate governance codes does not rest with one institution in Nigeria. The CBN supervises the financial institutions and ensures compliance. If a bank is quoted on the NSE, the exchange also assumes some jurisdiction. Lately, the IFRS has come on the scene after Nigeria joined other nations in implementing IFRS. The Financial Reporting Council is now claiming to be the preeminent enforcer of these codes. There is a lot of confusion regarding which institution a listed company should be answerable.

The Securities and Exchange Commission's code, which was approved in 2003, focused on board responsibilities and composition, CEO duality, procedures and frequency of meetings, requirements for nonexecutive directors, compensation of the members of the board, and financial reporting and control (Afolabi, 2015; Ejuvbekpokpo & Esuike, 2013). The NSE's code, which was fashioned after the OECD principles of corporate governance, also stipulated the rights and

responsibilities of shareholders; audit committees' duties and responsibilities, qualifications, and meetings; and the size, diversity, experience, and independence of the board of directors. Afolabi (2015) stated that the reason why corporate governance is ineffective in Nigeria could be traced to a wholesale adoption of the British company's law of 1948 by the Nigeria legislatures without considering the peculiar history and business environment in Nigeria, and the country's level and stage of development.

The failure of Nigeria's businesses is traceable to other factors than corporate governance weaknesses, though a poor control system is a significant contributor to corporate collapses in the country. The aftermath of Cadbury NigeriaPublic Limited Company (PLC)'s financial scandals and fraud is a revealing example of a much deeper problem in the country's business environment: The cavalier attitude with which law enforcement treats the business elite that behave inappropriately. Between 2002 and 2006, Cadbury Nigeria PLC inflated its income statements by some N13 billion ($65 million). The three directors involved confessed to account manipulation to manage profit, meet analysts' expectations, and improve share price. The SEC found the company guilty of inadequate disclosure, noncompliance with corporate governance guidelines, obtaining loans to pay dividends contrary to SEC regulations, fraudulent and

unauthorized share buybacks, giving the auditors false stock certificates, and illegal payment to directors (http//nairaland.com, 2015).

The auditors of Cadbury Nigeria PLC, Akintola Williams Deloitte, was equally found guilty by the SEC. The auditor failed to properly carry out its statutory duties. They failed to check and verify inventory certificates and bank reconciliation statements, and they received oral representations without third party confirmation and documentary evidence. When the directors' statements were unclear and contrary to the evidence in plain sight of the auditors, they were not put on notice and they failed to probe the matter to the bottom. In the case of Enron, some directors went to jail, some committed suicide, while Arthur Andersen, the auditor, collapsed. The Nigerian executives and the company involved got the lightest sentences ever in a case like this. Cadbury was fined only N21, 215, 000.00 ($134, 272.15) and the three directors involved, the CEO, the CFO, and another director, were only banned from operating in Nigeria's capital market and from being a director in a public company. The auditors and the guilty directors got off absolutely free (http://nairaland. com, 2015).

Corporate Governance Research in Nigeria

A number of research studies in Nigeria have focused on the association between corporate governance mechanisms and firm performance, and the incidences of accounting scandals in the country. Adewuyi and Olowookere (2013) found that

31.71% of all the nonfinancial firms on the NSE surveyed between 2000 and 2008 showed good corporate governance changes. A change that resulted in the increase in independent directors, independence of the audit committee, decrease in board size, and lower leverage was deemed to be a good corporate governance change. The fact is that in many cases appointment to the boards of Nigerian companies is based on family ties, recommendations by large shareholders, and close networks of individuals or professionals. The prevailing practice is that merit takes a backseat in board appointments in Nigeria. The culture of not appointing the right persons to the board makes implementation of good corporate governance systems difficult in the country.

Zango, Kamardin, and Ishak (2016) examined the impact of corporate governance characteristics and the IFRS 7 on 14 banks listed on the Nigerian Stock Exchange between 2008 and 2012. Zango et al. reported that IFRS 7 (financial instruments disclosure) was positively and significantly associated with board committee, board financial and accounting expertise, and board gender. The findings show that accounting and financial expertise of board members matter. Hassan and Ahmed (2012) also documented a negative but not significant association between audit governance scores and absolute discretionary accruals. They also found a negative and significant relationship between institutional shareholding and discretionary behavior of managers, meaning that at least in Nigeria, the freedom

enjoyed by managers of corporations to deliberately misstate accounting information decreases with the presence of institutional investors. This means that institutional investors act as a check on managers' excessive risk taking and accounting manipulations. The presence of other nationalities on the board of directors tends to promote competition amongst various listed companies. Obembe and Soetan (2015) stated that competition had a positive and significant effect on productivity growth in Nigerian companies. Obembe and Soetan also reported that the interaction effect of productivity with corporate governance mechanisms had substitution effect but not significant effect in productivity growth in Nigerian companies. Akinkoye and Olasanmi (2014) noted that corporate governance initiatives were embedded in Nigerian companies that they studied between 2003 and 2010. Furthermore, Akinkoye and Olasanmi documented the compliance rate with corporate governance best practices among Nigerian companies to be 72.15%. They also observed a shift in corporate governance structure in Nigerian companies and a slow-down in corporate governance practice.

The issue of nationality and ethnicity are extremely important in Nigeria's business life and politics. Foreign companies dominate the listings on the Nigerian Stock Exchange in terms of capitalization, where foreign nationals hold a high proportion of the shares. Although the Nigerian authorities continue to

promote homegrown investment culture, the efforts are hampered by poverty, poor savings culture, and a lifestyle of conspicuous consumption. The average person does not believe in investment in shares due to poor working knowledge of the stock exchange. Ethnicity is also a very important consideration in Nigeria and an important variable that should be taken into account when considering board composition, because the country has about 250 ethnic groups, and each is a powerful force in business and politics (World Fact Book, 2016). Board composition with different ethnic nationalities is a bulwark against unethical practices.

Salaudeen, Ibikunle, and Chima (2015) investigated unethical accounting practices and financial reporting of companies quoted on the NSE. In a case study conducted in one of the biggest first generation banks in Nigeria, Afribank PLC, which collapsed in 2015, the researchers found extended audit tenure impaired auditor's independence. Before the SEC of Nigeria started to implement corporate governance principle in the country from 2003, many companies retained external auditors for as long as possible, many of them also serving as tax and internal audit consultants, advisers on strategy and information technology, and training. Salaudeen et al. (2015) stated that poor corporate governance was largely responsible for the eventual collapse of the banks.

Summary

I focused on agency, stakeholder, and stewardship theories in this review of the literature. The stakeholder theory assumes that, by taking into account the interests of all stakeholders in all decisions in the corporation, organizational performance should improve. The stewardship theory assumes that managers who act as stewards looks after the interests of the shareholders without any consideration for their self-interest, thereby reducing agency problems and agency costs. The agency theory posits that the separation of ownership from control causes agency problems in firms. Agency problems lead to costs, which are entirely borne by the shareholders as managers exploit their superior information knowledge to extract value from the firm and stockholders. Using agency, stakeholders, and stewardship theories, I explained the relationship between managers, shareholders, and other stakeholders, and how managers can be made to act in the best interests of all stakeholders, especially the stockholders. Specifically, the literature review covered (a) the theories corporate governance, including agency, stakeholders, and stewardship theories, (b) corporate governance antecedents and attributes, (c) conflict of interest and firm performance, (d) major themes in corporate governance research, (e) financial performance, using return on assets, return on capital employed, and Tobin's Q as

performance metrics (f) evaluating the corporate governance of a firm, and (g) corporate governance practice in Nigeria.

In Chapter 3, I provided I provided information on the research design and method that was used to organize and analyze the data. I also documented the dependent and independent variables and their measurements, the type of data that were used, the data gathering and organization techniques, and the target population. I also gave details of the sampling method, instrumentation, and the data analysis software that was used. In addition, I restated the research questions and the research hypotheses of the study.

Chapter 3: Research Method

Introduction

In this chapter, I described the research methodology that I used to conduct this study. I described in detail the research design, hypothesis formulation, target population, sampling strategy and methods, instrumentation, data sources, and data analysis and reporting. While this study was entirely based on secondary data sources and did not involve any population that might be at risk in the process of data gathering, nevertheless, I sought and obtained the approval of the Institutional Review Board (IRB) before commencing any aspect of the research. Also, I included in this chapter a literature review of the proposed research design and other designs that could have been used to conduct the study.

Research Design

I used a quantitative research design and multiple regression analysis to examine the impact of corporate governance mechanisms on firm financial performance. The general equation for k independent variables in the model is given by: $Y = a + b1X1 + b2X2 + \ldots\ldots + bkXk + e$, where Y is the dependent or criterion variable, a is the intercept of the model, b1….bk are the regression coefficients applied to the Xs, X1…Xk are the predictor or independent variables, and e is the residual or random error in the model (Pedhazur, 1997, p. 136). The dependent

variable in this study was financial performance, measured by three ratios: ROA, ROCE, and Tobin's Q.

Dependent Variables

ROA is defined as the ratio of EBITDA and the total assets of the firm (Baulkaran, 2014; Poutziouris et al., 2014). ROA has been used to measure financial performance in many studies (Dah, 2016; Muttakin et al., 2016; Perryman, Fernando, & Tripathy, 2016). ROCE is the ratio of EBITDA to the capital employed in the firm (Zona, 2016). Capital employed is measured as the total of equity and debt, or simply total assets less current liabilities (Investopia, 2015). Tobin's Q is the ratio of market value of assets to the cost of replacing the assets (Jermias & Gani, 2014). Tobin's Q ratio measures the company's market value, where a ratio above one indicates an overvaluation, and a ratio below one indicates undervaluation of the firm (Eklund & Poulsen, 2014).

Independent Variables

In the model, the independent variables that I selected for the study were board independence, independence of the audit committee, executive compensation, number of board meetings, and the size of the board. The five variables are some of the metrics shareholders and analysts use to measure how their companies are performing. Board independence is present when there is separation of the role of the CEO from that of the chair and when more than 50% of the members are

outside, nonexecutive directors, who do not have any relationship with the company, either as a former employee, auditor, or a family member of the CEO or other directors (Quttainah, 2015; Tsai et al., 2013).

To assess the independence of the audit committee, the OECD's corporate governance principles require that it be composed entirely of independent directors. In this study, I defined an independent audit committee as one composed mainly of independent directors, at least more than 50%, with a direct communication between committee members and the chief internal auditor without obtaining approval from the CEO. Executive compensation was defined in this study as the total amount of money and benefits-in-kind paid to top management of the firm, disclosed in the financial statements as required by the Nigeria's Company and Allied Matters Acts of 1990 and the FRC.

I measured the number of board meetings by the total number of meetings held in any one year, where a quorum was formed. The board directs the affairs of the firm by holding meetings. Apart from satisfying statutory requirements, the frequency of board meetings indicates board activity, the time and attention the board devotes to the organization, and board service involvement (Knockaert et al., 2015). The number of board meetings also indicates to the executives how seriously the board considers the affairs of the corporation. The size of the board is the absolute number of directors. The appropriate board size depends on the

organizational context, the complexity of the company's operations, the number of foreign subsidiaries, the macro-economic situation, and the need for proper coordination and control (Knockeart et al., 2015; Lucas-Perez et al., 2014). The size of the board may not be sensitive to the benefits and costs of monitoring and advising the management of the firm.

The Different Types of Research Design

There are three types of research designs that may be used for studying a phenomenon: qualitative, quantitative, and mixed-methods. There are alternatives strategies that a researcher may use in his or her study within the three types of research designs. In a qualitative research design, the strategies can be a narrative research, phenomenology, ethnographies, grounded theory, and case study (Babbie, 2014). In a quantitative inquiry, the alternative approaches are experimental designs and nonexperimental designs, such as surveys and correlational studies (Frankfort-Nachmias & Nachmias, 2008). According to Trochim and Donnelly (2008), a qualitative research design is appropriate when the researcher desires to generate new theories or hypothesis or explore a new phenomenon to gain a deeper understanding of the issues, and to develop detailed stories to describe a phenomenon (p. 142).

Quantitative research design allows the researcher to test theories by examining the relationships among the variables (Frankfort-Nachmias & Nachmias, 2008).

According to Babbie (2014), quantification makes observations more explicit, and data are easier to summarize, compare, and aggregate (p. 24). Quantitative research also offers advantages of precision because numbers remove ambiguities and subjectivity. Quantitative research can be correlational, (i.e., looking for relationships among variables) or experimental (Hill & Lewicki, 2006).

In correlational research, the relationship between the variables is investigated to find out whether there is a statistically significant correlation between them (i.e., whether the changes observed in one variable are correlated with the changes in the other variable (Bonna, 2012). In social science research, the variables are not usually susceptible to manipulation; in other words, the researcher cannot state whether there is a cause and effect in in the variables, because there is no possibility of performing the study in a laboratory. But in experimental research, some variables are manipulated and the effect is measured on the other variable (Hill & Lewiscki, 2006, p. 3). Usually, a cause and effect can be established in pure experimental research.

A mixed-methods design stands in-between qualitative and quantitative inquiries. It is used when neither of the two other research designs is deemed appropriate to understand the phenomenon under investigation (Babbie, 2014). By combining the strengths of the two traditional methods of inquiry, the mixed-methods researcher is able to address and understand complex social problems that neither

the qualitative nor quantitative inquiry can handle satisfactorily and completely. In a mixed-methods inquiry, the researcher may choose to do sequential, concurrent, or transformative research designs (Frankfort-Nachmias & Nachmias, 2008).

Qualitative research uses small samples to explore and understand human perspectives to a problem or phenomenon by using rich and lengthy and full descriptions to capture those experiences and perspectives (Babbie, 2014). Qualitative researchers are less interested in generalizing their findings to the whole population, but only in a deep understanding of the phenomenon from the few samples selected. This is one of the flaws of qualitative research; that the research findings may not be capable of generalization to other populations, groups, or geographic areas (Babbie, 2014). Quantitative research, on the other hand, relies on large samples randomly drawn from a population to test data and find correlations or relationships among the variables for generalization to the whole population, but a quantitative measure may not be as rich in meanings as a qualitative design (Babbie, 2014).

According to Babbie (2014), research serves three main purposes; and these are exploration, description, and explanation. An exploratory research is typically done for three purposes: (a) to satisfy the researcher's curiosity for better understanding, (b) to test the feasibility of undertaking a study, and (c) to develop

the methods to be employed in any subsequent study (Babbie, 2014, p. 90). A qualitative research design is suitable for exploring and understanding social and human problems from the worldview of particular participants (Frankfort-Nachmias & Nachmias, 2008). No predetermined answers are assumed in a qualitative study, and the method allows the researcher to deal with new questions and theories (Babbie, 2014).

Although various researchers have used qualitative inquiries to examine the impact of corporate governance mechanism on financial performance, a qualitative inquiry was not suitable for this study, which was based on correlational study. Researchers have advocated using qualitative characteristics in corporate governance studies to gain a deeper understanding of the issues. Almadi (2015) used a narrative method to explain the significance of incorporating context with corporate governance systems to assess how it works in practice.

Qualitative methods have the advantage that complex cases can be studied in-depth, but it also suffers from serious disadvantages in that results cannot be generalized to other populations. It is also difficult to test hypotheses and make quantitative predictions, and the results frequently incorporate the researcher's biases (Babbie, 2014). The distinguishing characteristics of qualitative from the quantitative inquiry are not only the absence of quantification, but also the

underlying assumptions, data gathering techniques, data analysis tools, and generalizability of the results (Jackson, 2015). Madill (2015) stated that what distinguishes qualitative from quantitative inquiries is not mere labeling, such as descriptive, interpretative, or lived experience. The labeling will exclude many research studies using this method of inquiry that produce conceptual and theoretical explanations of observed phenomena.

The major purpose of a quantitative inquiry is to test theories through examination of the relationships among variables (Pedhazur, 1997). In this study, I used the correlational analysis method and a multiple regression model, which tests a relationship between two or more variables where changes in one are associated with changes in the other (Babbie, 2014). A quantitative method of inquiry was suitable for this study because I tested the association between corporate governance mechanisms and firm financial performance. Although correlation does not mean causation; nevertheless, it is one of the criteria of causality (Babbie, 2014).

A quantitative research design using a multiple regression model is suitable when the researcher's aim is to test the relationship between a dependent or criterion variable and several predictor variables (Hill & Lewicki, 2006; Pedhazur, 1997). Multiple regression models have been used in many studies to examine the relationship between corporate governance mechanisms and firm performance

(Baulkaran, 2014; Bhagat & Bolton, 2013; Francis et al., 2013; Muller, 2014). Researchers have also predicted the likely magnitude of change in financial performance by using corporate governance indices (Chahine & Zeidan, 2014; Gompers et al., 2003; Quittainah, 2015). Gompers et al. (2003) constructed the 24-item G-Index that indicates a manager's control and influence over important decisions affecting the firm using multiple regression analysis (Dah, 2014). Bebchuck et al. (2009) stated that only six of the 24-item G-Index governance provisions have a significant effect on the value of a firm. Bebchuck et al.'s modified Entrenchment Index (E-Index) included provisions in the firm's articles for golden parachutes, poison pills, staggered boards, a supermajority requirement for charter amendment, a supermajority requirement for merger amendments, and placing limits on shareholders' bylaw amendment (Dah, 2014). For example, Dah (2014) used multiple regression analysis to study the effect of recession on management and found that managerial entrenchment was significantly higher during periods of recession, by using the E-Index (Bebchuck et al., 2009). Ioana and Mariana (2014) used multiple regression models to examine the association between the characteristics of corporate governance and firm performance in Romania; the proxies for firm performance chosen were ROA and return on equity (ROE). Satayesh, Razaie, and Kazenezhad (2016) also used a quantitative research design with multiple regression analysis to investigate the

role of investment in R&D as it relates to corporate governance and organizational performance in listed companies in Iran. Several other research studies cited in the literature used quantitative methods and multiple regression analysis to examine the impact of corporate governance mechanisms on company performance (Abdioğlu, 2016; Arena, Cirillo, Mussolino, Pulcinelli, Saggese, & Sarto, 2014; Haji, 2014; Mishra & Mohanty, 2014; Reutzel & Belsito, 2015). To investigate the impact of corporate governance on firm performance, many researchers have used primary data collected through surveys and structured or semistructured questionnaires and then used the multiple regression method to analyze the data. For example, Du, Deloof, and Jorisen (2015) examined the role of the board of multinational companies' subsidiaries in Belgium by distributing questionnaires to the CEOs of 428 firms. Pugliese et al. (2014) investigated how company profitability and industry regulation affect corporate performance by surveying the CEOs of top 2, 000 Italian firms through questionnaires in 2004, and using multiple regression analysis of quantitative method to analyze the data. Knockart et al. (2015) sent questionnaires to the CEOs of 300 firms in Norwegian universities and public research institutes in their study on the role of top management staff and board chairperson as antecedents of board service involvement. Knocaert et al. (2015) used multiple regression analysis of quantitative method to analyze the data. Many other researchers have used

multiple regression analysis to analyze data with the help of statistical software such as SPSS (Akash & Abbas, 2015; Kouki & Guizani, 2015; Yeh, 2014). Although many researchers gather primary data through questionnaires and then use quantitative method of multiple regression analysis to analyze the data, there are several issues with questionnaire design, administration, and analysis. As Fowler (2014) remarked, designing questionnaires is equivalent to creating a measure (p. 75). It is important to ensure that bias and double meaning are removed from the questions. Some of the biases in question design are leading, threatening, and double-barreled questions, which may render the survey inaccurate (Frankfort-Nachmias & Nachmias, 2008). Other types of errors and biases in questionnaires are incomplete and poorly worded sentences, and poorly defined terms and multiple questions (Fowler, 2014). Common sources of error in the wording of questions also arise from ambiguous and loaded questions, and those that are difficult to understand or beyond the level of comprehension of the respondents (Donovan & Hoover, 2014). Questionnaire administration is also costly and time consuming (Fowler, 2014).

According to Babbie (2014), questionnaires are versatile tools used in many research studies, including experiments, field research, and other data collection activities (p. 261). In this study, I collected data on corporate governance from secondary data, using the financial statements of the target companies. The

audited financial statements will be accessed from multiple sources: The corporations' websites, the website of the NSE and from the websites of FRC and SEC.

I have chosen the multiple regression method for the data analysis stage of this dissertation after a careful consideration of the other tools of analysis that are possible and readily available. Some of the other methods considered are simple regression analysis, ANOVA, correlational analysis, discriminant analysis, log linear models, and nonparametric test. Simple regression analysis only applies when the independent variable is limited to one, and in correlation analysis, no distinction is made between the independent and the dependent variable (Pedhazur, 1997). These two types of analysis methods were not suitable for this dissertation study.

ANOVA combines cases under study into groups of independent variables and the extent to which the group differs from one another is investigated (Babbie, 2014, p. 486). The discriminant analysis method is similar to multiple regression analysis but the dependent variable can be nominal. The log linear models "test the factors used in cross-tabulations and their interaction for statistical significance" (Pedhazur, 1997, p. 311). Many of these tests measure the variables at the ratio level. The advantage of measuring variables at the ratio level is the precision of their numerical values, which allows statistical manipulation

(Frankfort-Nachmias & Nachmias, 2008, p. 147). Nonparametric methods are applied where the traditional statistics are not applicable, and the assumptions for parametric tests are not met (Gibbons, 1993, p. 2). Nonparametric analysis is also used when the researcher does not know the parameters of the distribution of the variables, such as the mean and the standard deviation (Pedhazur, 1997, p. 381).

Target Population

The research population for this study consists of all the 116 nonfinancial companies listed on the NSE between 2011 and 2015. At the end of December 2015, 55 companies in the financial services industry were quoted on the NSE excluding banks and insurance firms. These will be excluded from the analysis. The financial and related companies were excluded from this study because they are subject to different rules dictated by their regulators, and based on the conditions of the license given to them to operate. The CBN, the Nigeria Deposit Insurance Corporation, and the Nigerian Insurance Commission regulate the financial services companies listed on the stock exchange. Including any of these corporations will seriously bias this study as they are subject to different accounting and financial regulations that are separate and distinct from those that the firms in non-financial industries are required to observe

The 116 nonfinancial firms on the stock exchange represent this study's population. These firms are in many industrial sectors, including manufacturing,

hotels and tourism, energy, equipment, and services; petroleum products distribution; apparel retailing; courier, freight, and deliveries; road transportation; and services. The study covered 5 years from 2011 to 2015. All the 116 non-financial companies listed on the stock exchange was examined to determine whether they met the eligibility criteria for inclusion in the sampled companies. To be included in the final sample, a firm must have met the following criteria: (a) compliance with the NSE code of corporate governance, (b) trading for at least 3 years prior to 2011, (c) the share must be active on the stock exchange throughout the 5 years under study, (4) the market capitalization must be a minimum of $1 million, (5) no loss is recorded in any of the 5 years under analysis, (6) the audited financial statements must contained financial and corporate governance information for analysis, and (7) the firm must be in active operation throughout the 5 years ending on December 31, 2015. This research covered all the nonfinancial companies listed on the main and premium boards of the NSE that meet the above conditions.

The NSE is a member of International Organization of Securities Commissions (IOSCO), the World Federation of Exchanges (WFE), SIIA's Financial Information Services Division (FISD), and Intermarket Surveillance Group (ISG). Equities are listed under several industrial sectors, including consumer goods, food products, financial services, healthcare, pharmaceuticals, industrial goods,

chemicals, energy, equipment, services, integrated oil and gas services, hospitality, and printing and publishing. The Exchange tracks stock and market performance by 12 indices, including the NSE All Share Index, NSE Main Board Index, NSE 30 Index, NSE Banking Index, and NSE Oil and Gas Index. The main index is NSE 30 Index. Institutional investors, including pension and mutual funds, use the NSE Indexes to monitor the performance of their stock holdings and check the performance of their individual holdings against the NSE stock index.

Sampling Methods

There were 252 listed securities on the NSE at the end of December 2015. Three securities were listed on the premium board, 171 equities on the main board, 11 on the alternative securities market board; seven exchange traded products, and 15 federal government bonds. There were also 21 corporate bonds, 22 state and municipal bonds, and 2 supranational bonds. The total market capitalization of all the listed securities as on December 31, 2015 was $85.3 billion (NSE, 2016). This study considered only listed equities on the main board of the NSE.

Fifty-five equities on the main board of the NSE belong to banks and other financial institutions. The 55 equities belonging to the financial institutions were excluded from the analysis because these institutions are subject to different regulations and accounting and disclosure requirements by the regulatory

authorities, including the CBN, Nigeria Deposit Insurance Corporation, and Nigerian Insurance Commission. Including the financial institutions with the non-financial companies may make interpretation of the findings difficult. The exclusion of financial institutions left 116 firms as the population for the study. The 116 nonfinancial firms belong to 10 industrial sectors, namely: (a) agriculture, (b) conglomerates, (c) construction/real estate, (d) consumer goods, (e) healthcare, (f) ICT, (g) industrial goods, (h) natural resources, (i) oil and gas, and (j) services.

There were several sampling techniques that may be considered to obtain a representative sample for this study: (a) a simple random sampling technique selects samples from the population with every sample having equal chance to be selected (Trochim & Donnelly, 2008), (b) in stratified random sampling, the population is divided into homogeneous subgroups and a simple random sampling taken in each subgroup (Trochim & Donnelly, 2008), (c) a systematic random sampling technique involves the researcher first determining randomly where to start sample selection from the sample frame, and thereafter, every n^{th} item is then selected, (d) convenience sampling is based on convenience and availability of information the researcher is seeking, and (e) finally, a purposive sampling method is a sampling technique used when the researcher has a purpose in mind that he or she desires to achieve. According to Trochim and Donnelly

(2008), subcategories of purposive sampling are modal instance sampling, expert sampling, and snowball sampling.

The sampling technique for this dissertation study was based on convenience sampling method, because it was based on the availability of data, and whether the sampled companies met a set of conditions, such as the numbers of years since being listed on the NSE availability of audited financial statements, number of directors, absence of loss in all the 5 years covered by the study, and market capitalization. Researchers call this type of sampling technique nonprobability sampling. It is nonprobability because it does not involve a random selection of samples, and it is impossible for the researcher to specify the chance of each unit being included (Frank-fort-Nachmias & Nachmias, 2008). But as Trochim and Donnelly (2008) stated, it does not necessarily mean that nonprobability samples are not representative of the population. What it means is that the statistical rules of the probability theory may not be applicable, and the researcher may not know how well the samples represent the population (Trochim & Donnelly, 2008).

From the 116 nonfinancial firms whose securities were listed on the NSE between 2011 and 2015, I selected all the companies that met the following criteria:

A quotation history on the exchange for three years prior to 2011.

A verifiable tradition of implementation of SEC's corporate governance codes and compliance with the listing rules of the Nigerian Stock Exchange.

Active quotation on the NSE throughout 2011 to 2015.

Financial statements for the five years that comply with IFRS, which also contain information for the computation of ROA, ROCE, and Tobin's Q; with the disclosures of corporate governance variables of board composition, audit committee composition, executive remuneration, number of board meetings, the size of the board, and the age and size of the firm.

Be in operational existence throughout the 5 years ending December 2015.

Have total market capitalization of $1 million or above, translated at the prevailing official exchange rate determined by the CBN in any particular year. Have total market capitalization of $1 million or above, translated at the prevailing official exchange rate determined by the CBN in any particular year.

Recorded no losses throughout the 5 years covered in the study (i.e., from 2011 to 2015).

I assumed that companies that have traded for 3 years prior to 2011 would have a tradition of implementation of good corporate governance practices and be comfortable disclosing the governance process in the financial reports. Companies with market capitalization of $1 million and above would also have the resources and motivation to put in place good corporate governance practices in the Nigerian context. Large cap companies as defined above with a minimum of $1 million in market capitalization, in the unique situation in Nigeria, tend to have structures, systems, and ability to set up and implement effective corporate

governance mechanisms to monitor and advice the top management. Market capitalization is defined as the total outstanding shares multiplied by the price per share at the end of the business day when the market value was determined.

Smaller firms, those with less capital than $1 million and those that have not been quoted for a minimum of 3 years, may have constraints to implement sound corporate governance systems, arising from lack of ability to attract widely sought-after independent directors to the board. Company size is important in corporate governance systems. For example, the studies by Li and Tan (2015) and Quttainah (2015) reported that company size is positively and significantly associated with firm value. The purpose of a good corporate governance system is to reduce agency problems in firms by reducing the conflict of interest between managers and shareholders. One of the mechanisms to ensure agency problems are minimized is to institute a system of control and monitoring of executives through an active board and its committees (Berle & Means, 1932; Fama, 1980; Jensen & Meckling, 1979). Only large companies have the resources and attractiveness to bring to the firm independent and experienced directors.

Big companies, because of size, position in the economy, the number of shareholders, and the number of employees are under more scrutiny by regulators, activist shareholders, and financial institutions. Analysts and institutional investors are less tolerance of weak corporate governance practices in large companies than in

smaller ones. I will exclude small firms and those whose shares are newly listed on the stock exchange because these corporations may not have had the time, resources, and tradition to develop an effective corporate governance structure due to their size and lack of resources to implement a robust system.

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I relied on the publicly available financial information of the firms listed on the companies' websites, the NSE websites, the companies' 2011 to 2015 filing with the NSE, the websites of the SEC, and the NSE's Daily Activity Summary for Equities. The Daily Activities Summary, published daily in all major newspapers in Nigeria, includes the total capitalization of each company, price per share, and the volume of trading. The convenience or judgmental sampling used in this study was based on substantial evidence; I relied on figures published in the official websites of the companies, the stock exchange, and in national

newspapers. According to Deming (1990), an evaluation of the reliability of judgmental sampling rests on the researcher's expertise, as the theory of probability cannot be used to test its reliability. Deming (1990) also stated that it is necessary to report full details of a judgmental sampling procedure.

Instrumentation

Although corporate governance systems have existed as part of company management infrastructure since the separation of ownership and control became inevitable due to the size and scale of operations of modern business enterprises, a uniform measuring instrument has not been devised (Bonna, 2012). Rather, many instruments have been developed by researchers to measure corporate governance mechanisms (Zona, 2016). Also, financial performance has traditionally been measured by objective performance such as accounting ratios, but some researchers have used subjective performance measures as well.

While financial ratios are based on the historical data from a firm's accounting records, researchers compute subjective performance metrics by asking managers what, in their views, constitute good performance and how they rate their own company. Throughout this study, I used objective accounting and financial data to measure company performance. Researchers have also constructed many instruments and indexes to measure different aspects of corporate governance, and others are still been invented as businesses become more complex and global. Many researchers

have used several instruments to investigate the impact of corporate governance mechanisms on firm performance. For example, Adewuyi and Olowookere (2013) classified a decrease in board size and separation of the CEO and the board chair as good corporate governance changes.

In this study, I investigated many corporate governance indexes in the review of the literature. The G-Index, devised by Gompers et al. (2003), computes a firm's score based on certain provisions that decrease shareholders' rights and hence weakens corporate governance, provisions such as poison pill, staggered boards, limitations of the right of shareholders to call meetings, and golden parachute. The higher is the index, the greater the manager's influence over important decisions in the firm. The higher score indicates a weak or poor corporate governance structure. The G-Index is a 24-item governance provisions constructed from RiskMetrics, formerly Investors Responsibility Research Center's (IRRC) publicly available information on the company's database. The lowest figure is 0 and the highest 24 for each provision in the company's byelaws.

Bebchuck et al. (2009) believed that only six provisions, out of the 24 proposed by Gompers et al., (2003) were needed to determine whether there is a poor or strong corporate governance structure in a firm. Bebchuck, et al., (2009) constructed the managerial E-Index from IRRC data and the six provisions are a subset of the G-Index. The six provisions are golden parachutes, poison pills, staggered boards,

supermajority requirement for merger amendments, supermajority requirement for changes to the firm's charter, and limit to shareholder bylaw amendments. The E-Index scores the six provisions from 0 to 6, and a higher score is associated with poor corporate governance while a lower score indicates strong corporate governance (Bebchuk et al., 2009).

Brown and Caylor's (2006) governance score (Gov-score) was constructed from Institutional Shareholder Services (ISS's) database, using a 52-item firm characteristics to assign scores to provisions of the firm's bylaws (poison pill, supermajority provisions, etc.), board structure (independence, CEO/chair duality, nominating committee, etc.), audit committee (independence, auditors' fees from other services, auditor rotation, and changes), firm progressive practices (directors' term limits, mandatory retirement age, etc.) and management and directors' compensation (directors' stock options, interlocks in compensation committee). The Gov-score ranges from 0 to 52, with high scores associated with better corporate governance practices. Many of these instruments measure the same things although from different perspectives.

The Corporate Library is a commercial vendor of corporate governance data analysis and assessments tools. The instrument is based on 100 criteria, scores range from 0 to 100 for constructing a benchmark score. The scoring follows closely the G-Index (Gompers et al., 2003), the E-Index (Bebchuk et al., 2004), and the Brown and

Caylor's (2006) Gov-score. The provisions concern bylaws (poison pills, supermajority rules), board structure (independence, CEO duality, nominating committee), audit committee, executive compensation, and progressive practices. A high Gov-score indicates good corporate governance practices and a low score weak signifies a weak corporate governance practice.

S&P's Corporate Governance Scores (CGI) is another index that offers a detailed measure of a firm's corporate governance structure, benchmarked by reference to global best practices. S&P's corporate governance scores assigns scores to companies' practices ranging from 1 to 10, with 10 standing for best corporate governance practices. A high score indicates good corporate governance practices while a low score is associated with poor or weak practices. S&P corporate governance scores are divided into three sub-indices. The first focuses on ownership structure and relationship with investors, the second concerns financial and information transparency, and the third addresses the firm's board and management structure and processes.

The G-Index of Gompers et al. (2003) and the E-Index of Bebchuck et al. (2009) are the most traditional corporate governance indices used in extant literature. Support is found in the literature for both composite and separate measures of corporate governance (e.g., Bebchuk et al., 2009; Bhagat & Bolton, 2013; Gompers et al., 2003). But as Bhagat and Bolton (2013) stated, a single measure of board

characteristics can be as effective as the multiple measures of the G-Index, the S&P CGI, and Bebchuck et al. (2009)'s E-Index. The reasons are: (a) because the board of directors has the power to make all decisions, they have an incentive to provide effective monitoring and supervision of managers if they own stocks in the firm, (b) the errors associated with a single measure would be less than those arising from multiple measures.

Poutziouris et al. (2014) used a combination of primary data on compensation, ownership, internal governance, and financial and market information from the Shanghai and Shenzhen stock exchanges. Xie and Fukumoto (2013) also used separate measures of corporate governance (board size, average CEO tenure, non-CEO chair, and financial kereitsu) to examine the impact of corporate board size and financial performance (ROA and Tobin's Q) in Japanese companies listed in the first section of the Tokyo Stock Exchange. There are many instruments that researchers have developed to measure separate components of corporate governance mechanisms.

Following Bhagat and Bolton (2013), I accomplished the objective of this dissertation study by combining separate and combined measures of corporate governance. I calculated and used several indexes to measure corporate governance mechanisms by the equal weighting technique used in constructing the G-Index (Bonna, 2012; Gompers, et al., 2003). The index for each variable was computed for each of the

5 years from 2011 to 2015. To calculate the average score for each variable, the total score was divided by the number of years the study covers. I followed the convention established in both Corporate Library and Brown and Caylor (2006) where a high score indicates a strong corporate governance practice and a lower score a weak corporate governance system. The separate measures of corporate governance mechanisms were (a) board independence, (b) independence of the audit committee, (c) executive compensation, (d) number of board meetings, and (e) board size. I calculated the indices by following the equal weighting technique in the G-Index and the E-Index. To ensure that the measurements were content-valid, I defined adequately the key concepts of the constructs that I measured (Bonna, 2012). The following definitions and measurements of the variables have been adopted in this study:

Board Independence

In this dissertation study, I defined board independence as the proportion of directors on the board that is independent, and whether the positions of the chair of the board and the CEO are combined in one person or separated (CEO duality). CEO duality arises when the positions of the chairperson and CEO are combined. An independent director will have no financial ties with the firm, neither will he or she be a former employee, auditor, or connected to a former or present employee, auditor, finance provider, major supplier, or a large stockholder who

owns 5% or more of the firm's stock. I measure board independence using a 5-point Likert scale, where 1 equals presence of CEO duality and less than 50% of the board members are independent, 2 is presence of CEO duality and exactly 50% of board members are independent, 3 is the presence of CEO duality and greater than 50% of board members are independent, 4 is absence of CEO duality and exactly 50% of board members are independent, and 5 is absence of CEO duality and greater than 50% of the board members are independent. A high score indicates more independence while a low score means less independence of the board of directors (Brown & Caylor, 2006).

Independence of the Audit Committee

Audit committee independence was defined as the proportion of independent directors on the committee and whether the committee is free to communicate with the internal auditor without the CEO's approval. Ideally, the entire members of the audit committee should be independent. Members of the committee are independent if they do not have any financial ties with the firm, neither would they be former employees, auditor, or connected to a former or present employee, auditor, finance provider, major supplier, or a large stockholder who owns 5% or more of the firm's shares. To measure audit committee independence, I use a 5-point Likert scale, where 1 equals independent members constitute less than 50% of the total with no right to communicate with the chief internal auditor without

authorization of the CEO, 2 equals exactly 50% of the audit committee members are independent without direct communication with the chief internal auditor, 3 equals independent members constitute more than 50% of the total but with no right to communicate with the chief internal auditor, 4 equals independent members equals 50% of the total and can communicate freely with the chief internal auditor, and 5 equals more than 50% of the members are independent and can freely communicate with the chief internal auditor. A high score indicates more independence while a low score indicates less independence of the committee.

Executive Compensation

The agency theory is based on the conflict that arises when ownership is separated from control. Managers tend to pursue strategies motivated by self-interest. By adequately remunerating the managers, especially by giving them ownership stake in the company, the interest of managers and that of the shareholders should be more closely aligned and agency costs reduced. Managers' compensation was measured by the total remuneration given to them, which may be a combination of cash payments, stock options, paid holidays and insurance, and all kinds of benefits-in-kind. In this dissertation study, I used the figure of the highest paid director disclosed in the financial statements as proxy for executive compensation. The CAMA in Nigeria makes it mandatory that a range of

executive pay should be disclosed in the annual reports, including the amount paid to the highest paid director.

Number of Board Meetings

The board of directors carries out its statutory duties by holding meetings. The frequency of the meetings is an indication of the level of involvement of the members in the firm's activity, and the regularity of attendance of members shows their commitment to the company. Knockaert et al. (2014) stated that the frequency of meetings indicates board activity and the level of involvement of the members in the organization. The Nigerian Company and Allied Matters Act of 1990 does not indicate the minimum frequency of board meetings, but the SEC code of corporate governance says that directors should meet at least once every quarter, and a director must attend at least two-thirds of all meetings. In this study, I assigned one score to every full board meeting held during the year. For example, when the board meets eight times in a year, I scored the firm 8, seven meetings was scored 7, six meetings was scored 6, and so on.

Board Size

The size of the board is the number of directors on the board, including the chairman and the CEO, but excluding alternate directors and the secretary of the board. To measure the size of the board, I assigned 1 point to each director, using the equal weighting approach. From the literature review, there has not been total

agreement whether larger boards impact firm performance better than smaller ones. Larger boards are prone to the problems of coordination, which may reduce firm performance. On the other hand, larger boards tend to have a greater diversity of experience, necessary management capacity, and ability for quality advice and counseling to the top management of the firm. Many researchers have stated that the coordination, communications, and free-rider problems in larger boards may diminish the advantages of diversity of experience and ability for quality and impartial advice (Al-Matar et al., 2014; Al-Najjar, 2014). Although there is no absolute size for an active board, in this study, I adopted the view that larger boards enhance better firm performance. I used the equal-weighting approach in this study by scoring a 20-member board 20, a 19-member board 19, an 18-member board 18, and so on.

Firm Size

The size of the firm confers advantages and disadvantages on the firm. A large firm may be able to negotiate substantial discounts from suppliers, get concessions from the government, and benefit from substantial cash available for research and development. On the other hand, large firms tend to be inundated by bureaucracy and red tape, bitter rivalry among executives, and complacency. In this research, I adopted the view that large firms have the resources to engage in research and development, negotiate good terms with suppliers and governmental

agencies, attract and retain brilliant minds, and recruit directors that contribute substantially to the firm's performance. I used the natural logarithm of total assets as the proxy for size of the firm.

Firm Age

The age of the firm is a proxy for experience. An older firm should be able to withstand better a severe economic shock to the system than a new firm. The age of the company may also be a point of attraction for employees who see older firm as safe and steady, and a place to build careers on a long-term basis. In this research, the age of the firm is measured as the number of years since incorporation.

Financial Performance

In this study, I measured financial performance with three outcome variables. The firms' ROA is the EBITDA divided by the total book value of assets. The ratio was calculated using the firms' historical results published in the financial statements and reports. I computed the ratio for each of the 5 years and then divided by 5 to get the average for the 5 years. I also compared each of the company's accounting and disclosure policies to ensure that the financial statements have been prepared, as much as possible, on the same basis of accounting principles and concepts.

ROA is the yield on the total capital employed in the corporation. Stockholders invest in a particular stock to earn returns. The same capital could have been invested in government treasury bills or bonds, which are far less risky than investment in shares. ROA can be compared with returns on these guilt-edged securities to know how efficient the company managers deploy the capital. ROA was computed as the ratio of EBITDA and the total capital employed. The total capital employed is the firm's book value of equity plus preferred stocks and the long-term borrowings.

Tobin's Q, which is a market measure, is the third outcome variable in this dissertation study. Tobin's Q was defined as the ratio of the firm's market value to the replacement cost of its assets (Jermias & Gani, 2014). It is approximated to the ratio of market value of common equity plus book value of preferred stock, plus book value of long-term debt, plus book value of inventory, plus current liability, minus book value of current assets, to book value of total assets (Dharmadasa, Gamage, & Herath, 2014). Mathematically, Tobin's Q is computed as

$$\frac{MV\,(CS) + BV\,(PS) + BV\,(INV) + BV\,(CL) - BV\,(CA)}{BV\,(TA)\ BV\,(TA)}$$

Where MV and BV are market and book values respectively, CS, PS, LTD, INV, CL, CA, and TA are respectively common stock, preferred stock, long-term debt,

inventory, current liabilities, current assets, and total assets (Dharmadasa et al, 2014).

Data Collection Sources

The data collection in this dissertation study was from multiple sources. The sources included the companies' annual financial statements from 2011 to 2015 published and filed with the NSE and displayed in the firms' corporate websites, proxy documents, companies' articles of association, press statements, the NSE Daily Official List, and the Fact Book of the NSE Every company listed on the stock exchange must cause its accounts to be audited by registered auditors and filed with the exchange and other regulatory bodies.

Data were collected from the financial statements on the independence of the board, the independence of the audit committee, executive compensation, frequency of board meetings, the size of the board, the age and size of the company, and the firms' accounting ratios of return on assets, return on capital employed, and Tobin's Q. The market value of common stock is the price per share of the common stock multiplied by total amount of stock outstanding. The share price information for the 5 years was obtained from the historical data department of the NSE. The firms' total assets; EBITDA; current liabilities, inventory; current assets; and book value of preferred shares were also obtained from the published financial statements.

Data Organization Techniques

I collected the data for this dissertation study from public documents that have been filed with the NSE from 2011 to 2015. Every listed company is required to file their annual financial statements with the exchange in compliance with the listing requirements. The annual financial statements are also available from the websites of the sampled companies. The various financial ratios and corporate governance statistics collected from the annual reports and accounts was organized and summarized into a composite dataset. I manually reviewed the data using Microsoft Excel to ensure all errors were corrected before exporting the data to SPSS for statistical analysis. The Excel spreadsheet is a good tool for calculating the ratios and other figures for this study, specifically (a) ROA, (b) ROCE, (c) Tobin's Q, (d) mode, (e) mean, (f) standard deviation, (f) median, (g) sum, and (h) variance. The SPSS was also used to calculate measures of central tendency such as mean, median, and mode.

Data Analysis Plan

I carried out the data analysis with the aid of SPSS. The SPSS software contained both the descriptive and inferential statistics. With the aid of the SPSS, I computed measures of central tendency (i.e., the mean, median, mode, and sum; dispersion measures such as standard deviation, variance, minimum and maximum, and range; and partial correlations). Inferential statistics includes

ANOVA analysis, the *t* test, and multiple regression analysis that enables a researcher to calculate part and partial correlations, collinearity diagnostics, *R* squared change, and residual statistics such as Durbin-Watson and casewise diagnostics.

Prior to using the multiple regression analysis method to analyze my data, I calculated a simple correlation analysis to identify the variables to be included in the regression analysis. In the literature review section of this study, I developed the theoretical framework based on agency, stakeholders, and stewardship theories. I hypothesized that there was a statistical relationship between the corporate governance mechanisms, measured by board independence, audit committee independence, executive compensation, number of board meetings, and board size, and firm performance. I also hypothesized that the age and size of the firm were mediators of the relationship between corporate governance and firm performance. The firm performance was measured by ROA, ROCE, and Tobin's Q. My aim was to examine whether the selected corporate governance variables are predictive of organizational performance in nonfinancial companies quoted on the NSE. It is possible that some of the predictor variables may be measuring the same things, which will be revealed by Pearson's Product Moment correlation analysis.

Many researchers have used multiple regression models to examine the association between corporate governance mechanisms and firm performance. For example, Yeh (2014) used multiple regression method to examine whether a legally binding shareholder resolution has the effect of making the top management to put in place a good corporate governance system. Pouziouris et al. (2013) used multiple regression analysis to see whether family involvement in management affects the performance in corporations listed on the LSE, using agency and stewardship theories as the theoretical framework, and ROA and Tobin's Q as the outcome variables.

Francis et al. (2013) investigated the extent to which conservative accounting affects the shareholder value in the S&P 1500 composite index between 2007 and 2009 using multiple regression analysis. Kouki and Guizani (2015) also used multiple regression analysis to examine the extent to which the involvement of independent directors affects firm performance in 30 companies listed on the Tunisian Stock Exchange. Quttainah (2015) equally used multiple regression analysis to examine the impact of internal and external mechanisms on firm performance during the financial crisis of 2007 to 2008.

Based on the literature review, multiple regression analysis method is suitable as the research design to examine the relationships between the variables that I have chosen in this study. The generic equation is $Y = a + b1X1 + b2X2 + \ldots\ldots + bnXn +$

ε. Where Y is the dependent variable, X1…..Xn are the independent variables, *a* is the intercept of the model, *b*1 to *b*n are the beta coefficients of the regression model, and ε is the random error (Pedhazur, 1973). The five model specifications for the multiple regression equations are as follows:

$$ROA = \alpha_1 + \beta_1 BodInd + \beta_2 AuditCommInd + \beta_3 BodSize + \beta 4 BdMtgs + B_5 Execomp + \beta_6 FirmAge + \beta_7 FirmSize + \varepsilon$$

$$ROCE = \alpha_2 + \beta_8 BodInd + \beta_9 AuditCommInd + \beta_{10} BodSize + \beta_{11} BodMtgs + B_{12} Execomp + \beta_{13} FirmAge + \beta_{14} FirmSize + \varepsilon$$

$$Tobin's\ Q = \alpha_3 + \beta_{15} BodInd + \beta_{16} AuditCommInd + \beta_{17} BodSize + \beta_{18} BodMtgs + B_{19} Execomp + \beta_{20} FirmAge + \beta_{21} FirmSize + \varepsilon$$

$$FirmSize = \alpha_4 + \beta_{22} BodInd + \beta_{23} AuditCommInd + \beta_{24} BodSize + \beta_{25} BodMtgs + B_{26} Execomp + \beta_{27} FirmAge + \beta_{28} FirmSize + \varepsilon$$

$$FirmAge = \alpha_5 + \beta_{29} BodInd + \beta_{30} AuditCommInd + \beta_{31} BodSize + \beta_{32} BodMtgs + B_{33} Execomp + \beta_{34} FirmAge + \beta_{35} FirmSize + \varepsilon$$

Where a_1 to a_5 = the intercept of the model, BodInd = board independence, AuditCommInd = audit committee independence, BodSize = board size, BodMgts = number of board meetings, Execomp = executive compensation, FirmSize = firm size, and FirmAge = firm age; β_1 to β_{35} are the beta coefficients of the regression model; ROA and ROCE are the return on assets and return on capital

employed respectively; Tobin's Q is ratio of the firm's market value to the value of the replacement cost of its assets; and ε is the random error in the model.

Threats to Validity

The research project must be logical, accurate, and credible to be useful to those interested in answers to the research questions. The conclusion arrived at by the researcher must be logically derived from the data, and the result should be generalizable beyond the specific situations and conditions of the research. Internal validity is the degree to which accurate results can be drawn on the relationship between the variables, while external validity is the extent to which the result can be generalized to other populations, geographic areas, or situations (Leedy & Ormrod, 2010).

External Validity

The identified threat to external validity in this research is an unrepresentative sample. To ensure that the research is generalizable, I took precautions to describe the basis of the convenience sample I drew, and why some firms were removed from the sample. The sampling strategy was based on convenience sampling, and it involved including all the nonfinancial firms listed on the NSE that met the predetermined criteria, such as availability of data, number of years since listed, and market capitalization. All the companies that met the criteria of inclusion were included in the study.

Internal Validity

To prevent threats to internal validity in this research study, I took precaution to eliminate all other possible explanations for the relationships that I examined. The secondary data was collected from two sources. In the first case, data were collected from published financial statements where information on corporate governance and financial performance was obtained from the websites of the firms. The same data was verified with the data available on the website of the NSE. I paid particular attention to the computation of ratios, indexes, and averages. I ensured there were no errors in aggregating the data of the sampled firms over the 5-year period the study covered. To prevent errors of coding, I did the coding personally and meticulously. I also handled every aspect of the data analysis personally. In interpreting the result of my findings, I took account of all the factors that may affect the internal validity of the result and I was careful not to make exaggerated claims.

Construct Validity

According to Donovan and Hoover (2014), construct validity is probably the most important way to consider the issue of validity in research. Construct validity is the extent to which the variables measure what they are supposed to measure. The measure must be logically compatible and in agreement with the underlying concept. In this research study, the constructs measured were the independence of

the board, the independence of the audit committee, executive compensation, number of board meetings, and the size of the board. I also examined the mediating role of firm size and age on the relationship between corporate governance mechanisms and organizational performance. This study relied on secondary data, and the data sheets were the instruments that reflected the values of the variables measured. I constructed indices and ratios as needed, being careful to ensure that the ratios and indices were accurate. According to Donovan and Hoover, construct validity is probably the most important way to consider the issue of validity in research. Construct validity is the extent to which the variables measure what they are supposed to measure. The measure must be logically compatible and in agreement with the underlying concept. In this research study, the constructs measured were the independence of the board, the independence of the audit committee, executive compensation, number of board meetings, and the size of the board. I also examined the mediating role of firm size and age on the relationship between corporate governance mechanisms and organizational performance. This study relied on secondary data, and the data sheets were the instruments that reflected the values of the variables measured. I constructed indices and ratios as needed, being careful to ensure that the ratios and indices were accurate.

Ethical Procedures

The following ethical procedures were adopted in this dissertation study:

Protection from harm. Secondary data was used throughout this study. No human intervention was involved. Collection of secondary data would have necessitated a more stringent measure on how to protect human subject. The most vulnerable of the human subjects were children, drug addicts, prisoners, people with mental health, pregnant woment, the elderly, the disabled, and many others.

Informed consent. The data used for construction of the indices was obtained from publicly available documents. There was no need for informed consent. An informed consent would be necessary if primary data were collected. In a survey or questionnaire, participants' consents must be obtained. Participants must also be told that thgey are free to withdraw from the survey or participation in the questionnaire at any time and stage they desire.

Right to privacy. I ensured that the raw data were kept in a fire-proofed, locked drawer, and the information processed on SPSS is password-protected on the computer and external disks and flash drives. No information will be released to any person, and the sampled firms will not be identified by name. The data will be retained for a minimum of 5 years.

Institutional Review Board (IRB*).* I collected data for this dissertation research study after I received the approval from IRB. The IRB ensured that I fulfilled all

conditions precedent to collecting the data before I was given the permission to proceed. IRB did this to protect the integrity of my research.

Hypothesis Formulation

To answer the questions concerning the primary focus of this study, that is, whether there is a linear relationship between corporate governance mechanisms and the three dependent variables comprising ROA, ROCE, and Tobin's Q, I conducted many statistical tests. The statistical tests were to examine whether there were linear relationships between the outcome and predictor variables, and the statistical significance or strength of the relationships, measured by the beta coefficients of the independent variables. The hypotheses were as follows:

Null Hypothesis 1, $H_0 1$: $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = 0$

Alternative Hypothesis 1, $H1$: $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq \beta_6 \neq \beta_7 \neq 0$

Null Hypothesis 2, $H_0 2$: $\beta_8 = \beta_9 = \beta_{10} = \beta_{11} = \beta_{12} = \beta_{13} = \beta_{14} = 0$

Alternative Hypothesis 2, $H2$: $\beta_8 \neq \beta_9 \neq \beta_{10} \neq \beta_{11} \neq \beta_{12} \neq \beta_{13} \neq \beta_{14} \neq 0$

Null Hypothesis 3, $H_0 3$: $\beta_{15} = \beta_{16} = \beta_{17} = \beta_{18} = \beta_{19} = \beta_{20} = \beta_{21} = 0$

Alternative Hypothesis 3, $H3$: $\beta_{15} \neq \beta_{16} \neq \beta_{17} \neq \beta_{18} \neq \beta_{19} \neq \beta_{20} \neq \beta_{21} \neq 0$

Null Hypothesis 4, $H_0 4$: $\beta_{22} = \beta_{23} = 24 = \beta_{25} = \beta_{26} = \beta_{27} = \beta_{28} = 0$

Alternative Hypothesis 4, $H4$: $\beta_{22} \neq \beta_{23} \neq \beta_{24} \neq \beta_{25} \neq \beta_{26} \neq \beta_{27} \neq \beta_{28} \neq 0$

Null Hypothesis 5, $H_0 5$: $\beta_{29} = \beta_{30} = \beta_{31} = \beta_{32} = \beta_{33} = \beta_{34} = \beta_{35} = 0$

Alternative Hypothesis 5, $H5$: $\beta_{29} \neq \beta_{30} \neq \beta_{31} \neq \beta_{32} \neq \beta_{33} \neq \beta_{34} \neq \beta_{35} \neq 0$

Null Hypothesis 6, $H_0 6$: $\beta_{36} = \beta_{37} = \beta_{38} = \beta_{39} = \beta_{40} = \beta_{41} = \beta_{42} = 0$

Alternative Hypothesis 6, $H6$: $\beta_{36} \neq \beta 37 \neq \beta_{38} \neq \beta_{39} \neq \beta_{40} \neq \beta_{41} \neq \beta_{42} \neq 0$

Null Hypothesis 7, $H_0 7$: $\beta_{43} = \beta_{44} = \beta_{45} = \beta_{46} = \beta_{47} = \beta_{48} = \beta_{49} = 0$

Alternative Hypothesis 7, $H7$: $\beta_{43} \neq \beta_{44} \neq \beta_{45} \neq \beta_{46} \neq \beta_{47} \neq \beta_{48} \neq \beta_{49} \neq 0$

Null Hypothesis 8, $H_0 8$: $\beta_{50} = \beta_{51} = \beta_{52} = \beta_{53} = \beta_{54} = \beta_{55} = \beta_{56} = 0$

Alternative Hypothesis 8, $H8$: $\beta_{50} \neq \beta_{51} \neq \beta_{52} \neq \beta_{53} \neq \beta_{54} \neq \beta_{55} \neq \beta_{56} \neq 0$

A linear relationship exists between an independent and a dependent variable if the null hypothesis is not correct. In other words, a linear relationship does not exist between the outcome and the predictor variables if the null hypothesis, H_0, is correct. If the null hypothesis is rejected, it follows that the alternative hypothesis, $H1$, should be accepted, meaning that a linear relationship exists between the variables of interest. According to Field (2013), the assumption is that if the null hypothesis is true, there is no effect. One of the best ways to establish whether or not a linear relationship exists between the independent and dependent variable is by generating a scatterplot, and physically examining whether the data points fall on a straight line, even before running the analysis and testing for significance of the relationship within the confidence interval initially assumed.

The Null Hypothesis Statistical Testing (NHST) fits the model to the data and then tests the probability that there are no effects (Field, 2013, p.62). Once a linear relationship between the independent and the dependent variables has been

established, further tests will be conducted to determine the beta coefficients (β, μ, λ, η, σ, δ, and π), and evaluate which of them are not equal to zero. I carried out several statistical tests to determine the extent to which the variations in the outcome variables were explained by the independent and mediating variables. A stepwise regression model was used, where independent variables that do not have explanatory power were dropped from the model in subsequent analyzes in SPSS.

I have set the significance level at 5% in this study. This means that I will reject the null hypothesis if the computed *p*-value is less than .05 (Field, 2013). In other words, the probability of committing a Type 1 error is 5% (Hill & Lewicki, 2006). By rejecting the null hypothesis, H_0, I will be supporting what I actually believe is the real-world situation, which is called a reject-support testing in many fields of research (Hill & Lewicki, 2006, p. 408). To determine the strength of the relationship between the variables, I ran multiple regression procedures on SPSS, where the unadjusted and the adjusted R^2 were displayed in the SPSS output. While there are no benchmarks against which an effect size would be interpreted, Vacha-Haase and Thompson (2004) stated that effect sizes should be interpreted in the light of the relationship being studied and by comparing the effect sizes in related prior studies rather than a rigid adherence to Cohen's benchmarks of small, medium, and large effect sizes. Cohen's benchmarks may be more

appropriate in new and important studies where there is little or no prior literature (Vacha-Haase & Thompson, 2004, p.478).

Summary

Chapter 3 outlined the research method used to examine the relationship between corporate governance mechanisms and organizational performance in the 39 sampled nonfinancial companies listed on the NSE. The research design was quantitative, using multiple regression analysis to examine the relationship between the variables. SPSS software was used to analyze the data. The overarching research objective was to determine whether there was a statistically significant association between corporate governance mechanisms and organizational financial performance. Corporate governance mechanisms used in the study were board independence, audit committee independence, board size, number of board meetings, and executive compensation. Financial performance was measured by ROA, ROCE, and Tobin's Q. The mediating variables were firm size and firm age.

In chapter 4, I presented the result of my findings. First, I presented the descriptive statistical analysis of the sampled firms using mean, median, mode, range, and standard deviation. Secondly, I presented detailed statistical descriptive analysis of the sampled companies by subsectors. Next, I presented inferential

statistical analysis of the sampled companies and the result of the null hypothesis statistical testing. Finally, I summarized the results of my findings.

Chapter 4: Results

Introduction

In this chapter of the dissertation study, I presented the research findings. Descriptive and inferential statistics techniques were used to analyze the data. Descriptive statistics were used to simplify, organize, summarize, and group together the numerical data of all the sampled companies. The descriptive statistics I used included measures of central tendency, comprising the mean, median, sum, and mode of the distribution. To have an idea of how the data were spread out or clustered, I used the measure of dispersion provided by the SPSS, including the range, standard deviation, variance, minimum, and maximum. I used inferential statistics, including ANOVA and NHST, to generalize about the relationship between corporate governance mechanisms and organizational performance in nonfinancial firms quoted on the NSE. In Chapter 5, which is the last chapter of the study, I will examine a correlation matrix of the predictor variables and the presence of any multicollinearity and unusual cases problems. I will also summarize my findings and make recommendations on how corporate governance practices could be strengthened in Nigerian companies.

In this study, the 39 sampled companies were distributed across various market subsectors as follows: agriculture (5.13%), conglomerates (7.69%), consumer goods (30.78%), construction/real estate (5.13%), healthcare

(7.69%), information and communication technology (2.56%), industrial goods (12.82%), natural resources (2.56%), oil and gas (7.69%), and services (17.95%). The data for the study were collected for a span of 5 years, from January 1, 2011 to December 31, 2015, and covered 39 of the 116 nonfinancial companies listed on the NSE that met the study's specified criteria. The data were retrieved from the websites of the NSE, Nigerian SEC, and the sampled companies' websites.The search sources, keywords used in the study, and the processes adopted for the search are fully explained in Appendix A to this study. Also, the search sources included peer-reviewed journals that were retrieved from academic research database systems. The scoring methodology is listed in Appendix B. In Appendix C, I listed the 39 firms that were sampled for this dissertation study.

This chapter of the study is divided into seven sections. In the first section, I focused on descriptive analysis of the 39 sampled firms. In the second section, I presented how I used inferential statistical analysis methods to examine the relationship between corporate governance mechanisms and ROA. The third section of the study focused on inferential statistical analysis between corporate governance mechanisms and ROCE, while in the fourth section I will presented inferential statistical analysis between corporate governance mechanisms and Tobin's Q. The fifth section contained the results of my inferential statistical analysis that examined whether the age and size of the firms mediates the

relationship between corporate governance mechanisms and organizational financial performance. In the sixth section, I will presented the result of my examination of correlation matrix and multicollinearity and other problems of the independent corporate governance variables. In the seventh and last section, I presented the conclusion of the chapter.

Descriptive Statistical Analysis of the Sampled Firms by Variables

In the first section of this chapter, I presented the descriptive statistics of all the sampled companies using the mean, median, mode, range, and standard deviation of ROA, ROCE, and Tobin's Q in all the 10 subsectors of the 39 sampled nonfinancial firms quoted on the NSE between 2011 and 2015. The descriptive statistics also covered the five corporate governance variables, including board independence, audit committee independence, board size, number of board meetings, and executive compensation as well as the two mediating variables of age and size of the firm.

The largest firm in the sample in terms of market capitalization, using the average rate of foreign exchange during the 5 years from 2011 to 2015 of 158 naira to one U.S. dollar, had a mean market value of $6.7 billion. The smallest firm in the sample had an average market capitalization of $2.3 million. The average market capitalization of all the 39 sampled firms between 2011 and 2015 was $521 million, with a median of $78 million and standard deviation of

$1.3 billion. The average capitalization of all firms in the sample in 2011, 2012, 2013, 2014, and 2015 was $348 million, $511 million, $691 million, $598 million, and $458 million respectively.

Return on Assets (ROA)

In 2011, the mean ROA for all the 39 sampled firms was 16%, the highest was 47%, and the lowest was 2%. The median ROA for 2011 was 12% and the standard deviation was 11%. In 2012, the average ROA was 17% for all the 39 sampled firms, the highest was 60% and the lowest 3%. The median ROA in 2012 was 11% and standard deviation was 12%. The average ROA in 2013 was 17% for all the sampled companies while the median was 13% with a standard deviation of 12%. The highest and lowest ROA in 2013 were 71% and 6% respectively. In 2014, the mean return on assets for all the sampled firms was 15%, with a median of 13% and a standard deviation of 13%. The highest ROA for 2014 was 82% and the lowest was 6%. In 2015, the mean return on assets was 15% for all the sampled companies, the highest being 78% and the lowest 1%. In 2015, the median ROA for all the sampled corporations was 12%, and the standard deviation was 12%.

Return on Capital Employed (ROCE)

The mean ROCE for all the 39 sampled firms was 37% in 2011, 37% in 2012, 35% in 2013, 34% in 2014, and 36% in 2015. For the 5 years

covered by this study, the mean ROCE was 36%, the median was 24%, and the standard deviation 32%. The highest ROCE among the 39 sampled firms in 2011 was 123%, the lowest was 3%, and the median and standard deviation were 26% and 29% respectively. In 2012, the highest ROCE was 155% and the lowest was 8%. The median return on capital employed was 21% and the standard deviation was 32%. The highest and lowest ROCE in 2013 were 171% and 10% respectively, the median was 22% and the standard deviation was 33%. In 2014, the mean return on assets was 34%, the median was 24%, and the standard deviation was 32%. In 2015, the highest ROCE was 230% and the lowest was 3%, with a median of 24% and standard deviation of 32%.

Tobin's Q

The mean Tobin's Q for all the 39 sampled firms between 2011 and 2015 was 1.65, while in 2011, 2012, 2013, 2014, and 2015 the average Tobin's Q was 1.51, 1.68, 2.07, 1.76, and 1.23 respectively. The median Tobin's Q between 2011 and 2015 for all the 39 sampled firms was 1.04 and the standard deviation was 1.72. The highest Tobin's Q in 2011 was 12.13 and the lowest -.24, with median of 1.02 and standard deviation of 2.07. In 2012, the highest Tobin's Q was 5.42 and the lowest -.74; the median was .89 and the standard deviation was 1.82. In 2014 and 2015, the mean Tobin's Q was 1.76 and 1.23 respectively, the highest was 8.12 and 7.8, and the lowest -.28 and -.44 respectively for the 2

years. In 2015, the median Tobin's Q was 1.04 and the standard deviation was 1.72.

Board Independence

The highest score for board independence was 5, measured on a 5-point Likert scale where 5 indicates a completely independent board and 1 a complete lack of independence. The mean score for board independence for the 5 years from 2011 to 2015 for all the 39 sampled firms listed on the NSE was 4.97. In 2011, 2012, 2013, 2014, and 2015, the average score of board independence for each of these years was 4.97 as well. The highest score in each of the 5 years from 2011 to 2015 for board independence for the 39 sampled companies was 5 and the lowest 4.The median for each of the 5 years was 5, the mode was 5, and the standard deviation was also 5.

Audit Committee Independence

The independence of a firm's audit committee in this study is measured on a 5-point Likert scale, where 5 indicates a completely independent audit committee and 1 a complete absence of independence. The mean score for audit committee independence for all the 39 sampled firms for the 5 years between 2011 and 2015 was 4.03. The average score in each of the 5 years was also 4.03. The highest score in each of the 5 years was 5 and the lowest score was 3. The median and mode in all the 5 years was 4 with a standard deviation of .28.

Board Size

The mean board size in all the 39 sampled corporations listed on the NSE between 2011 and 2015 was nine, the median was nine, the mode was seven, with a standard deviation of two. In each of the 5 years from 2011 to 2015, the average board size was nine in the 39 sampled corporations. The highest board size between 2011 and 2015 was 15. The lowest board size in 2011 and 2012 was five, and in 2013, 2014, and 2015, it was four. The median board size between 2011 and 2015 was nine; the mode was nine in 2011 and 2012, seven in 2013, and seven and nine in 2014 and 2015 respectively. The standard deviation in the size of the board was 2.16 in 2011, 2.35 in 2012, 2.22 in 2013, 2.46 in 2014, and 2.75 in 2015.

Number of Board Meetings

The mean number of board meetings for the 5 years from 2011 to 2015 was five, the median was five, and the standard deviation was one. For the individual years, all the 39 sampled companies had five board meetings on average during 2011 and 2015; a mean of four in 2011 and 2012, and an average of five in 2013 and 2015. The mode was four in all the 5 years from 2011 to 2015. The highest number of board meetings in 2011 was seven and the lowest two. In 2012, the highest was number of board meetings was seven in 2012 and the lowest was three. In 2013 and 2014, the highest number of board meetings was

seven and the lowest was three and four respectively. In 2015, the highest number of board meetings in all the 39 sampled firms listed on the NSE was seven and the lowest was four.

Executive Compensation

The mean executive compensation in all the 39 sampled firms between 2011 and 2015 was $214,378; the median was $144,304; and the mode was $31,646 with a standard deviation of $200,583. The mean executive compensation in 2011, 2012, 2013, 2014, and 2015 was $181,110; $195,067; $196,527; $265,985; and $233,204 respectively. In 2011, the highest executive compensation was $917,722 and the lowest was $31,646. The median executive compensation in 2011 was $120,253; the mode was $94,937; with a standard deviation of $192,666. The highest executive compensation in 2012 was $886,076 and the lowest was $31,646. The highest executive compensation in 2013 was $917,722; the lowest was $31,646; the median was $126,582; and the mode was $31,646 with a standard deviation of $203,947. In 2014 and 2015, the highest executive compensation was $949,367 and $974,684 respectively; the median was $126,582 in 2014 and $151,899 in 2015; and the mode in 2014 and 2015 was $211,519 and $63,291 respectively. The standard deviation of executive compensation in the sampled companies in 2014 and 2015 was $319,527 and $235,888 respectively.

Firm Age

The mean age of the 39 sampled firms listed on the NSE between 2011 and 2015 was 46 years, the median was 48 years, the mode was 54 years with a standard deviation of 25 years. In 2011, the mean age of the firms was 44 years, the median age was 46 years, and the mode was 52 years with a standard deviation 25 years. In 2012 and 2013, the mean age of the companies was 45 and 46 years and the highest age was 133 years and 134 years respectively. The lowest firm age in 2012 and 2013 was 7 years and 8 years respectively. In 2014 and 2015, the average age of the firms was 47 and 48 years and the median was 49 and 50 years respectively, while the mode was 55 years and 56 years respectively, with a standard deviation of 25 years.

Firm Size

The average size of the firms in the 5 years between 2011 and 2015 was 10 natural logarithms, the mean and mode was 10, and the standard deviation was one. The mean size in 2011 was nine natural logarithms and 10 between 2012 and 2015. The standard deviation in all the 5 years was two, the median was nine in 2011 and 10 during 2012 to 2015. The highest and lowest sizes of the firms, measured in natural logarithms, in 2011 to 2013 was 12 and six respectively. In 2014 and 2015, the highest firm size was 13 and the lowest seven, measured in natural logarithms.

Descriptive Analysis of the Firms by Sector

The 39 sampled companies listed on the NSE were in 10 sectors of the economy. Two were in agriculture, three were listed as conglomerates, two were in construction and real estate, 12 firms were into the manufacturing of consumer goods, three were in healthcare services, one company was in information and communications technology, five companies produced industrial goods, one produced natural resources, three companies were in the oil and gas business, and seven corporations provided various services to their clients. The largest subsector was consumer goods with 12 companies, followed by the services subsector that had seven companies. The smallest subsectors, that had only one company representing the subsector, were information and communication technology and natural resource subsectors.

Agricultural Subsector

Two companies were represented in the agricultural subsector out of the 39 sampled nonfinancial firms listed on the NSE between 2011 and 2015. The companies were grouped into livestock feeds, poultry, and palm oil processing and marketing. The larger company in this subsector had a mean market value of $173.63 million and the smaller firm had an average market value of $25.6 million. The mean market value in this subsector was $99.6 million with a standard deviation of $104.70 and a range of $148.03 million. The average ROA

for this subsector was 15% with a median of 15% and a standard deviation of 2%. The higher ROA was 17% and the smaller ROA was 14% with a range of 3%.

The mean ROCE for the agricultural subsector was 33%, with a median of 33% and a standard deviation of 18%. The higher ROCE was 46% and the smaller was 21%, with a range of 25%. The average Tobin's Q for this subsector was 1.52, the higher Tobin's Q was 2.22, and the smaller was .81. The range of Tobin's Q for this sub-sector was 1.41 with a standard deviation of 1. The average board size for the sub-sector was 9 members. Both companies in this subsector had a chairperson different from the CEO, and nonexecutive members of the board constituted, on average, 80% of the members in the larger company and 71% of the members in the smaller company. The average number of board committees in this subsector was three, and these were remuneration, risk and governance, and audit committees. The annual report and accounts included sections on corporate governance report, statement of directors' responsibilities, report of the directors, and report of the audit committee. The average number of statutory audit committee members in this subsector was six; three were composed of company executives while the other three were nonexecutive or independent directors.

The highest paid executive in this subsector received on average $97,468 per annum and the least paid received $31,646. The mean total

compensation was $64,557 with a standard deviation of $46,544 and a range of $65,822. The average age of the firm in the subsector was 36 years with a standard deviation of 36 years; the older firm had a mean age of 50 years since incorporation and the younger had a mean age of 21 years, with a range of 29 years. The mean size of firms in this subsector was 9.28, measured with the natural logarithm of total assets. The larger firm in the subsector had an average size of 10.50, and the smaller firm had a size of 8.06, with a range of 2.44 and a standard deviation of 1.73.

Conglomerates Subsector

The conglomerates subsector was represented by three firms. The subsector was classified as corporations engaged in various businesses such as transportation, consumer goods, industrial machinery and goods, hotels and tourism, and manufacturing of consumer staples. The 5-year average market capitalization of the companies in the sub-sector was $336 million with standard deviation of $271 million. The largest company in this subsector had a mean market capitalization of $494 million and the smallest company had an average market value of $23.3 million with a range of $470.70 million.

The 5-year average ROA for this subsector was 15%, a median of 14%, with a standard deviation of 8%. The average ROCE for the subsector was 22% with a median of 22% and a standard deviation of 10%. The 5-year average

Tobin's Q for the subsector was 1.64, the median was 1.65 and the standard deviation was 1.3. The largest firm in the subsector had a mean Tobin's Q of 2.95 and the smallest a Tobin's Q of .34, given a range of 2.61. Nonexecutive directors in the firms constituted on average 72% of the members of the board of directors. The average board size in this subsector was eight directors, and the largest company had a mean of nine directors during 2011 to 2015, while the smallest had eight as the as the average number of directors during the same period. The average number of audit committee members was 6 with a zero standard deviation. All the companies in this subsector had on average six members of the audit committee, composed of three executive and three nonexecutive directors.

The average number of board meetings in this subsector was five with a median of four meetings and a standard deviation of 1.6 meetings. The 5-year average executive compensation was $307,173; the median compensation was $202,532 with a standard deviation of $274,862. The highest paid executive received on average $618,987 and the lowest received $100,000 with a range of $518,987.The average age of the firms in the sub-sector was 73 years. The highest age of the oldest firm since incorporation was 134 years and the average age of the youngest firm was 9 years old since incorporation. The median age was 73 years and the standard deviation was 76 years. The average firm size in the subsector, measured by the natural logarithm of total assets, was 9.93 with a

median age of 9.83 natural logarithms and a standard deviation of .17 natural logarithms.

Construction/Real Estate Subsector

The construction/real estate subsector was represented by two companies. The subsector had a 5-year average market value of $268.76 million with a standard deviation of $185.13 million. The larger firm in this subsector had an average market value of $399.69 million and the smaller firm had a mean market value of $137.85 million, giving a range of $261.84 million. The mean ROA for this subsector was 7%; the median ROA was 7% with a standard deviation of 3%. The company with the higher ROA had 9% and the smaller company had 5% with a standard deviation of 3%. The 5-year averageROCE was 58%, the median ROCE was 58% with a standard deviation of 69%. The firm with the higher average ROCE had 107% and the one with the lower average ROCE had 9%, giving a range of 98%. The mean Tobin's Q for this sub-sector was .46, the median Tobin's Q was .46, and the standard deviation was .22. The company with the higher average Tobin's Q had .61 and the firm with lower average Tobin's Q had .30.

The average size of the board in the subsector was nine members with a standard deviation of two members. The larger board had on average 10 members and the smaller company had seven members. The average proportion

of nonexecutive directors on the board of directors was 72% with a standard deviation of 1%. The company with the higher proportion of nonexecutives directors on the board had an average of 73% of all directors as nonexecutives and the other company had 71% of directors as nonexecutives. The average number of audit committee members in the subsector was six; three members are executive directors while three are nonexecutive or independent directors.

The average number of board meetings in the subsector was 5.3 meetings in a year with a standard deviation of .99 meetings and a median of 5.3 meetings. The bigger company had on average six meetings in a year while the smaller firm had 4.6 meetings on average. The mean executive compensation in this subsector was $241,139 with a standard deviation of $147,687 and a median of $241,139. The higher paid executive in this sub-sector received on average $345,570 in a year while the lower paid executive received $136,709, giving a range of $208,861.The average age of the firm since incorporation in the sub-sector was 32 years with a standard deviation of 22 years. The older firm had a mean age of 47 years and the younger company had a mean age of 16 years, with a range of 31 years. In this subsector, the mean size of the firms was 11.69, measured in natural logarithm of total assets, with a median of 11.69, and a standard deviation of .77.

Consumer Goods Subsector

Twelve companies represented the consumer goods subsector. The firms in this subsector engage in the manufacturing, marketing, and distribution of fast moving goods such as toiletries, baby foods, chocolates, full cream milk, toothpaste, sugar, and foams and mattresses. Others engage in beer and cold beverage production, flour, pasta, and cornflakes. The subsector is not the only the largest in terms of the number of the companies, it also represented the most profitable sector amongst the sampled sectors. The 5-year mean market value of this sub-sector was $1.43 billion; the median market value was $673.14 million with a standard deviation of $2.045 billion. The mean ROA for the sub-sector was 19%; the median ROA was 19% with the standard deviation of 10%. The company with the highest ROA had 35% and the firm with the smallest ROA recorded 9%. The range of ROA in the subsector was 26%. The 5-year average return on capital employed (ROCE) was 42%, the median ROA was 35% with a standard deviation of 24%. The company with the highest ROCE posted 94% on average while the company with the smallest ROCE recorded 16% on average. The range of ROCE in the subsector was 78%.

The 5-year mean Tobin's Q for the sub-sector was 2.57 with a median of 2.58 and a standard deviation of 1.85. The firm with the highest average Tobin's Q had 6.85 and the one with the lowest had .74, giving a range of

6.11. The average size of the board in this sub-sector was 10 members with a standard deviation of two members. The company with the largest board had 14 members on average and the one with the smallest had seven members, giving a range of seven members. In this subsector, the proportion of nonexecutive directors on the board of directors was on average 69%, with a standard deviation of 12%. This means that over two-third of the members of the board of directors were nonexecutives. The company with the highest proportion of non-executive directors to the total number of directors had 90% of the members as non-executive directors, while the one with the smallest proportion of nonexecutive directors had equal number of executive and nonexecutive directors, giving a range of 40%.

The average number of audit committee members in this sector was 5.87 members with a standard deviation of .30. The firm with the highest number of members had six and the one with the lowest number of members had on average 5.6; the range was .4. The 5-year mean number of meetings was 4.8 meetings in a year with a median of 4.8 meetings and a standard deviation of .77. The firm that held the highest number of meetings in a year on average had six meetings and the company with the lowest number of meetings held four meetings on average. The average executive compensation in the 5-year period was $322,046; the median executive compensation was $268,354 with a standard

deviation of $269,729. The company with the highest paid executive paid $929,114 on average and the firm with the lowest paid executive paid on average $31,646. The mean age of the firm in this subsector was 49 years with a standard deviation of 20 years. The oldest company had a mean age of 63 years since incorporation and the youngest firm had a mean age of 8 years, with a range of 55 years. The 5-year mean firm size, measured with the natural logarithm of total assets was 10.78 and the median size was 10.85 with a standard deviation of 1.33. The biggest firm in terms of total assets in natural logarithms had 12.54 and the smallest firm had 7.91, with a range of 4.63.

Healthcare Subsector

Three firms represented the healthcare sector among the 39 sampled companies listed on the NSE between 2011 and 2015. The corporations are in the business of manufacturing prescription and over-the-counter drugs, health drinks, oral hygiene products, intravenous fluids, and table water. The 5-year mean market value of the sub-sector was $110.55 million with a standard deviation of $165.29 million. The biggest firm in the subsector had a mean market value of $301.36 million and the smallest company had a mean market capitalization of $11.28 million, giving a range of $290.08 million. The 5-year mean return on assets (ROA) for the sector was 14% with a standard deviation of 4% and a median ROA of 14%. The company with the highest mean ROA had

18% and the firm while the smallest had average ROA of 10%, with a range of 8%. The average ROCE for this subsector was 26% with a standard deviation of 23%. The firm with the highest ROCE had 38% on average and the company with the smallest ROCE had 16%, making the range 22%.

The 5-year average Tobin's Q for the sub-sector was 1.06, the median was .54 with a standard deviation was 1.06. The company with the highest average ROCE had 2.28 and the firm with the average lowest ROCE had .35, giving a range of 1.93. The average board size in this subsector was nine members, with a standard deviation of one. The highest average board size was 9.8 and the lowest average board size was 8.60 with a range of 1.20. The 5-year average of the proportion of nonexecutive directors to the total board size was 64% with a standard deviation of 13%. The highest proportion of non-executive directors to the total board size was 80% and the smallest proportion was 56% with a range of 24%.

The 5-year average number of members of the audit committee was six with a standard deviation of zero. The largest and smallest number of audit committee was six during 2011 to 2015. Executive directors constituted 50% of the member while nonexecutive and independent directors constituted the other half. Different individuals served as chair of the board and company CEO during the period; there was a complete absence of CEO duality in the subsector.

The average number of meetings held in a year was 4.8 meetings, with a median of 4.2 and standard deviation of 1.22. The company with the highest average number of meetings held six meetings in a year and the company with the smallest number of meetings held four meetings, giving a range of two meetings. The highest paid executive in this subsector received on average a compensation of $230,380, with the median compensation being $221,519 with a standard deviation $15,347. The company with the highest paid executive paid $248,101 and the least paid executive received $221,519, giving a range $26,582. The mean age of the firms in this subsector was 44 years; the median age was 47 years with a standard deviation was 27 years. The average age of the oldest firm in the subsector was 69 years and the average age of the youngest was 15 years old, giving a range of 54 years. The 5-year average firm size, measured in natural logarithms of total assets, was 9.51 with a standard deviation of .56. The biggest firm size had a total of 10.10 in natural logarithms of total assets and the smallest had 8.98 with a range of 1.12.

Information and Communications Technology Subsector

This subsector was represented by only one company. The company offers alternative payment channels, mobile banking applications, international money transfer, and telephone billing and collection services. The average market capitalization for this company and the sector it represented was

$88.78 million with a standard deviation of $28.35 million. The highest market value in the five years from 2011 to 2015 was $131.32 million and the lowest was $61.67 million, giving a range of $69.65 million. The mean ROA for the five years was 10% with a standard deviation of 17%. The highest ROA was 18% and the lowest was 5% with a range of 13%. The average ROCE was 19% with a standard deviation of 12%. The highest ROCE in the period was 31% and the lowest was 3% with a range of 28%. The 5-year mean for Tobin's Q was 3.81 with a standard deviation of 4.76. The highest Tobin's Q for this subsector was 12.13 and the lowest was .11 with a range of 11.92.

The average board size for this sector was seven members with a standard deviation of two members. The highest number of the members of the board during the period was nine and the lowest was five, giving a range of four members. In this sector, nonexecutive directors constituted 77% of the members of the board on a 5-year average; the highest percentage of non-executive directors to the total board size during the period was 86% and the lowest was 67%, giving a range of 19%. There was no CEO duality in this sector, as different individuals served as chair of the board and the company's CEO. The average size of the audit committee was six members with a standard deviation of .89. The highest average number of audit committee members during the period was six and the lowest was four members with a range of two members. During the

period, the average number of board meetings held in the firm was five with a standard deviation of .84. The highest number of meetings was six and the lowest four.

The highest paid director in this subsector earned an average compensation of $126,582. The highest and lowest compensation paid was $126,582. The average age of the firm in the subsector was 10 years with a standard deviation of 2 years. The highest number of years since incorporation was 12 years and the lowest 8 years. The mean firm size, measured in the natural logarithm of total assets was 8.62 with a standard deviation of 1.11. The largest size was 10.41 and smallest size was 7.39.

Industrial Goods Subsector

The industrial goods subsector was represented by five companies and it the third largest sub-sector in the 10 subsectors of the 39 sampled nonfinancial firms listed on the Nigerian Stock Exchange between 2011 and 2015. The companies are into the manufacturing of aluminum doors and windows; industrial, household, and marine paints and coatings; industrial packaging; and other materials. The average market value for the subsector was $34.19 million with a standard deviation of $60.65 million. The largest company in the sub-sector had an average market capitalization of $142.37 million and the smallest

company had a mean market value of $2.34 million, giving a range of $140.03 million.

The 5-year average ROA for this subsector was 21% with a median ROA of 9% and a standard deviation of 27%. The highest average ROA was 68% and the smallest was 4%, giving a range of 64%. The mean ROCE for the sub-sector was 48% with a standard deviation of 78% and a median of 18%. The highest average ROCE was 169% and the lowest was 10%, giving a range of 159%. The 5-year average Tobin's Q for this subsector was 2.06 with a standard deviation of 2.99 and a mean of .78. The highest average Tobin's Q was 7.37 and the smallest was .6 with a range of 6.77.

The 5-year average board size was seven with a standard deviation of two. The company with the largest average board size had 10 members and the smallest had five members. All the companies had the positions of the chair of the board and CEO held by different directors, meaning that there was absence of CEO duality in all the firms. Non-executive directors constituted on average 75% of the total number of board members with a standard deviation of 145. The highest proportion of non-executive directors was 85% and the lowest was 55%. The average number of audit committee members was 6 with a standard deviation of .27. The members were equally divided among the executive and non-executive directors. The highest and lowest number of audit committee members

was 6. The average number of board meetings held in the subsector was six with a standard deviation of 1.51. The highest number of meetings held was seven and the lowest was three, giving a range of four meetings.

The 5-year average executive compensation for the subsector was $59,494 with a standard deviation of $15,163. The highest paid executive in this subsector received $83,544 and the lowest paid executive received $51,899, giving a range of $31,645. The average age of the firms in this sub-sector was 63 years with a standard deviation of 12 years. The oldest firm was 80 years old since incorporation and the youngest firm was 54 years old, with a range of 26 years. The average size of the companies in this sub-sector, measured by the natural logarithm of total assets, was 8.02 with a standard deviation of .94 and a median of 8.20. The largest firm had a total of 9.07 on average while the smallest firm had a total of 6.05 on average with a range of 3.02, measured in natural logarithms of total assets.

Natural Resources Subsector

The natural resources subsector was represented by only one company. The firm manufactures industrial gases, gas mixtures, and liquefied petroleum gas. The 5-year average market value for this sector was $15.74 million with a standard deviation of $3.24 million. The highest market value was $17.55 million and the lowest was $9.99 million with a range of $7.56 million. The

average ROA was 21% with a standard deviation of 8%. The highest ROA was 32% and the lowest was 13%, with a range of 19%. The average ROCE was 34% with a standard deviation of 14%. The highest ROCE was 54% and the lowest was 19%. The 5-year average Tobin's Q was .81 with a standard deviation of .31. The highest Tobin's Q was 1.25 and the lowest was .48.

The average board size for this subsector was six members with a standard deviation of zero; the size of the board was maintained at six members throughout 2011 to 2015. The chairperson of the board was different from the CEO, indicating absence of CEO duality in the subsector. More than two thirds of the board was composed of nonexecutive directors; and this proportion was maintained throughout 2011 and 2015. The average number of the members of the audit committee was four between 2011 and 2015 with a standard deviation of zero; half of the members of the committee were composed of executive directors and the other half were made up of nonexecutive or independent directors.

The average number of board meetings held in the subsector was five with a standard deviation of one; the highest number of meetings was six and the lowest four. The 5-year average executive compensation was $206,329 with a standard deviation of $97.497. The highest executive pay was $215,190 and the lowest was $126,582 with a range of $88,608. The average age of the firm was 54 years with a standard deviation of 2 years. The average firm size, measured in the

natural logarithm of total assets, was 7.95 with a standard deviation of .17. The largest average size was 8.14 and the smallest average size was 7.71; making the range .43.

Oil and Gas subsector

The oil and gas sub-sector was represented by three companies. Two of the companies are in downstream oil sector where they engage in the marketing and sale of premium motor spirits and vehicle lubricants. The other company combines downstream operations with the manufacture and sale of lubricants and upstream activities. The 5-year average market value for the sub-sector was $154.42 million with a standard deviation of $164.45 million. The largest company in this sector had an average market capitalization of $142.37 million and the smallest had an average market capitalization of $42.46 million with a range of $99.91 million. The average ROA was 10% with a standard deviation of 4%. The company with the highest average ROA had a return on assets of 14% and the company with the smallest ROA had 6%; giving a range of 8%. The 5-year average ROCE was 43% with a standard deviation of 37%. The largest average ROCE was 85% and the smallest was 20% giving a range of 60%.

The 5-year average Tobin's Q for this subsector was .94 with a standard deviation of .53. The highest average Tobin's Q was 1.26 and the smallest was .33 with a range of .93. The average board size for the sector was

seven directors with a standard deviation of three directors. The highest average board size was 10 directors and the smallest was three directors with a range of five directors. Seventy-seven percent of the total number of directors in this subsector was composed of non-executive directors with a standard deviation of .05. The highest proportion of nonexecutive directors to the total board size was 80% and the smallest was 71% with a range of 9%. None of the companies in this sub-sector had a chairperson who was also the CEO: There was an absence of CEO duality in the subsector.

The average number of audit committee members in the subsector was five with a standard deviation of .92. The highest average number of audit committee members was six and the smallest was four with a range of 2.The 5-year average number of board meetings was four with a standard deviation of .42. The highest average number of meetings was five and the smallest was four. The 5-year average executive compensation in the sub-sector was $186,076 with a standard deviation of $197,468. The highest paid executive received on average $325,316 and the least paid received $35,443. The average firm age was 42 years with a standard deviation of 17 years. The oldest firm was on average 57 years and the youngest was 24 years with a range of 33 years. The average size of the firms, measured with the natural logarithm of total assets was 10.61 with a

standard deviation of .97. The largest firm had a size of 11.26 and the smallest had a size of 9.5 with a range of 1.76.

The Services Subsector

The services subsector was represented by seven firms and it was the second largest sector among the 10 sectors of the 39 sampled nonfinancial companies listed on the NSE. The firms in this sector represented businesses in airline services and logistics, vehicle and heavy equipment leasing, hotel and tourism services, courier and mail delivery services, and aviation logistics provision. Others are in the business of large format printing and advertisement services. The 5-year average market value in this sector was $54.51 million with a standard deviation of $84.89 million. The largest firm had a mean market capitalization of $242.21 million and the smallest company had an average market capitalization of $5.38 million with a range of $236.83 million.

The average ROA for this sub-sector was 12% with a standard deviation of 4% and a median of 11%. The firm with the highest average ROA had 19% and the company with the smallest ROA had 6% with a range of 13%. The average ROCE was 21% with a standard deviation of 7% and a median of 20%. The highest average ROCE was 33% and the smallest ROCE was 13%, giving a range of 20%. The 5-year mean Tobin's Q for the subsector was .53 with

a standard deviation of .46. The firm with the average highest Tobin's Q had 1.04 and the smallest was .35, giving a range of .69. The median Tobin's Q was .53.

The average size of the board of directors in this subsector was nine with a standard deviation of two. The biggest size was 12 members of the board on average and the smallest size was six members, giving a range of six members. All the firms in this subsector had separate chair of the board and CEO. On average, 80% of the members of the board were composed of nonexecutive directors with a standard deviation of .07. The highest proportion of nonexecutive directors to the total board size averaged .89 and the lowest was .71, giving a range of .18.

The average number of audit committee members was six with a standard deviation of .76. The highest number of audit committee was six and the smallest was four with a range of two. The audit committee was composed of equal number of executive and nonexecutive directors. The average number of board meetings was five with a standard deviation of four. The highest number of board meetings held was five and the smallest was four with a range of one. The average executive compensation for the subsector was $152,260 with a standard deviation of $154,672 and a median of $69,620. The highest paid executive in the subsector received $462,025 on average and the least paid executive received average compensation of $31,646 with a range of $430,379. The average age of

the firms in this subsector was 29 years with a standard deviation of 10.46 years and a median of 29 years. The oldest firm was 48 years old and the youngest was aged 17 years, giving a range of 31 years. The average firm size, measured as the natural logarithm of total assets, was 8.64 with a standard deviation of .93 and a median of 8.83. The biggest firm had a size of 9.83 and the smallest had 7.27, measured in natural logarithm of total assets, with a range of 2.56.

In Table 1, I summarized the descriptive statistics of the sampled sub-sectors and their performance. The performance indicators were the average ROA, average ROCE, and average Tobin's Q values. The performances of firms in the sub-sectors were classified as followed: For ROA, 15% was classified as below average performance, 15% to 20% was classified as average, and above 20% was classified as above average. For ROCE, below 20% was classified as below average performance, 20% to 25% was classified as average performance, and above 25% was classified as above average performance. Tobin's Q below 1 was classified as below average performance, between 1 and 1.50 was classified as average performance, and above 1.50 was classified as above average performance.

Table 1

Descriptive Statistics of Samples Sub-sectors Descriptive Statistics of Samples Sub-sectors

Sub-sector	Mean ROA (%)	Mean ROCE (%)	Mean Tobin's Q	Performance
Agriculture	15	33	1.52	Above average
Conglomerates	15	22	1.64	Above average
Construction	7	58	.46	Below average
Consumer goods	19	42	2.57	Above average
Healthcare	14	26	1.06	Above average
Info. Technology	10	19	3.81	Average
Industrial goods	21	48	2.06	Above average
Natural resources	21	34	.81	Average
Oil and gas	10	43	.94	Average
Services	12	21	.53	Average

Note. The higher the ROA, the more efficient is the firm in utilizing its resources and the better its financial performance. A higher ROCE means a firm performs better than the one with a lower ROCE, and a Tobin's Q > 1.00 indicates the company has better growth prospects than one with Tobin's Q ratio < 1.00.

Info. Technology refers to the information and communications technology subsector and construction refers to the companies in the construction/real estate sub-sector.

During 2011 to 2015, the industrial goods and natural resources subsectors had the highest ROA of 21%, followed by the consumer goods subsector with average ROA of 19%, and the agriculture and conglomerates sub-sector that had an average ROA of 15%. The healthcare sub-sector had an average ROA of 14%, followed by the services sub-sector with ROA of 12%, and the information and communications technology and oil and gas sub-sectors that had ROA of 10%

each. The construction/real estate sub-sector had the smallest ROA of 7%. It is clear from the study that the companies with the highest ROA did not necessarily have the highest ROCE or highest Tobin's Q. Return on assets (ROA) indicates a high profit margin, efficient and effective use of the corporations' assets, and efficient management of liquidity.

The construction/real estate sub-sector had the highest return on capital employed (ROCE) of 58% followed by the industrial goods sub-sector that had a ROCE of 48%. The oil and gas sub-sector had ROCE of 43% and consumer goods sub-sector had a ROCE of 42% followed by the natural resources sub-sector with ROCE of 34%. The average ROCE of the agriculture sub-sector was 33%, that of the healthcare sub-sector was 26%, and the conglomerates and services sub-sectors had a ROCE of 22% and 21% respectively. The information and communications sub-sector had the least ROCE of 19%. Return on capital employed indicates how effective a firm is in using its shareholders' funds and long-term debt to make profit. If the corporate governance of a firm is weak, it is unlikely that it will be able to borrow at the most advantageous terms and hence its cost of funds will be high and profitability lower.

The highest Tobin's Q of 3.81 was had by the company in the information and communications technology sub-sector followed by the consumer goods subsector with 2.57 and 2.06 for the industrial goods subsector. The

conglomerates subsector had a Tobin's Q of 1.64 while the agricultural and the healthcare sub-sector had a Tobin's Q of 1.52 and 1.06 respectively. The companies that had a Tobin's Q less than one were four in number. The oil and gas subsector had a Tobin's Q of .94 followed by the natural resources sub-sector with a Tobin's Q of .81 and the services subsector had a Tobin's Q of .53. The least average Tobin's Q of .46 belonged to the construction subsector. A Tobin's Q greater than 1 indicates that the company is overvalued and that it is earning a rate that is higher than the replacement cost of its assets. Overvaluation of a company's stock will attract other competitors to the market and reduce the firm's profit and its market value; which will eventually lead to a lower Tobin's Q. A Tobin's Q ratio less than 1 indicates undervaluation of a company's stock. An undervaluation will attract corporate raiders and other purchasers to the company. Increased interest in the company may increase its market value, thereby increasing its Tobin's Q. From the result, it seemed either that many companies are overvalued or that the market is not efficient in pricing the stocks.

In Table 2, I tabulated the summary descriptive statistics of the sampled firms by using the mean, median, mode, and standard deviation of the variables. The mean, median, and mode are measures of central tendency, they measure the same things, and are thus related; the relationship depends, to some extent, on the shape of the frequency distribution. The standard deviation, on the

other hand, measures the variability of the data points from the mean by using the mean of the distribution as a reference point.

Table 2

Descriptive Statistics of Organizational Financial Performance and Corporate Governance (n=39)

	Mean	Median	Mode	Standard deviation
ROA	20.19%	15.40%	n/a	16.03%
ROCE	35.83%	23.69%	n/a	31.92%
Tobin's Q`	8.27	5.24	n/a	8.6
Board Ind.	4.97	5.00	5.00	.16
Audit Comm Ind.	4.03	4.00	4.00	.28
Board Size	9	9	7	2.19
Number of Meetings	4.86	4.60	4.00	.92
Executive Comp.	$214,378.45	144,303.80	31,645.47	200,583.25
Firm age	45.72 years	48	54	25.31
Firm Size	9.68	9.50	n/a	1.48

Note*: ROA is the return on assets and ROE is the return on capital employed. Audit comm. Ind. Is the score on the independence of audit committee and executive comp is the dollar amount of the highest paid executive. The mean represents the sum of all the observations divided by the number of observations. The median is the middle score that divides the distribution in half while the mode is the score that has the greatest frequency. The standard deviation is a measure of the variation of the observations it is an indication of the variability of the sets of scores (Kerlinger & Pedhazur, 1973).*

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The mean ROA for the 39 sampled nonfinancial firms listed on the NSE between 2011 and 2015 was 20.19% and the median was 15.40%n with a standard deviation of 16.03%. There was no mode for this distribution. The mean, median, and mode of a perfectly symmetrical distribution are the same. But an

imperfect and roughly symmetrical distribution will have the mean and median at the center of the distribution in close proximity to each other. A highly skewed distribution tends to have different values for the mean, median, and the mode. In a positively-skewed distribution, the mode has the smallest value, followed by the median, and the mean has the largest value. In a negatively-skewed distribution, however, the mean is the smallest, followed by the median, and the mode takes the largest value. The ROA in this study is thus positively skewed, with a few corporations earning very high returns and many others earning extremely low returns. A high ROA is an indication of the efficiency and effectiveness with which the firm utilizes its assets, both physical, financial, and human. An extremely low ROA in many firms indicates the inefficiency with which assets are deployed. It may also be as sign of a conservative investment culture and risk taking, where firms prefer to hold on to what is sure and known, with reluctance to venture into new and more risky, but much more profitable business.

The mean ROA was 35.83%; the median was 23.69% with a standard deviation of 31.92%. There was no mode for ROCE. The ROCE is positively skewed, with many firms having lower value than the market average. A high ROCE indicates that the firm gets a high return on capital it has invested into the business while a low return on capital indicates the company is not getting enough returns on shareholders' funds and long-term borrowing.

Particularly in Nigeria where the cost of funds exceeds 25% per annum on borrowings, a low ROCE indicates inability of the funds to make enough profit to cover the cost of borrowing.

The mean Tobin's Q ratio for the 39 sampled firms quoted on the NSE was 8.27; the median was 5.24 with a standard deviation of 8.60. There was no mode for the Tobin's Q ratio. The ratio was positively skewed indicating that a few firms had high values while many companies had low ratios. A high Tobin's Q indicates that a firm's stock is overvalued and the company is profitable. High profitability would attract other competitors to the business, thus lowering average profitability and Tobin's Q ratio. A low Tobin's Q ratio indicates that a firm is undervalued. Undervaluation would attract corporate raiders and other purchasers to the business, thereby improving the fortunes of the business and raising its Tobin's Q. A Tobin's Q ratio of 1 is a state of equilibrium, indicating neither over- nor undervaluation, but market forces may take it above or below 1. In a perfectly competitive market, any over- or undervaluation will be eliminated quickly by market forces. The Nigerian capital market, it seemed from the result of the findings, is not as efficient as it should be as many companies' Tobin's Q ratio remained below or above 1 for considerable periods of time.

The mean market capitalization of equity was $520.98 million and the median was $77.58 million with a standard deviation of $1.27 billion. There

was no mode for market value. The market value appeared to be positively skewed with many firms in the sample having extremely low market values and few companies having very large market capitalization. For example, eight firms, all in the consumer goods sub-sector had an average market capitalization of $2.1 billion and the biggest company had a market value of $6.75 billion. Board independence had a mean of 4.97, a median of 5, and a mode of 5 with a standard deviation of .16. The distribution is almost a perfect normal symmetrical. This is because in the Nigerian SEC codes of corporate governance, companies are required to separate the positions of the chair from those of the CEO and all the 39 sampled companies complied with this minimum standard. Audit independence also had an almost perfect normal symmetrical distribution with a mean of 4.97, median of 5, and a mode of 5 with standard deviation of .16. Again, like the board independence where the SEC's corporate governance codes require the separation of CEO from the board's chair, the Nigeria's Companies and Allied Matter Act, 1990 made mandatory a minimum of six members in the audit committee, three executive directors and three non-executive or independent directors.

The board size had a mean of 8.83, a median of 9.0, and a mode of 7 with a standard deviation of 7.0. The distribution is positively skewed. The number of board meetings had a mean of 4.86, a median of 4.6, and a mode of

four with a standard deviation of .92. The distribution was positively skewed with few extreme scores to the right. The Nigerian SEC code of corporate governance requires a minimum of four board meetings in a year. Most companies complied strictly with this minimum standard, sometimes regardless of the firm's business circumstances demanding more or less board meetings. Executive compensation had a positive distribution with some extreme scores to the right; the mean was $214,378.45, the median was $144,303.80, and the mode was $31,645.47 with a standard deviation of $200,583.25. The result for executive compensation suggested that some companies paid excessive compensation to their employees far above the average in the market, especially among the foreign-owned businesses who had to align executive compensation with global standards. Compensation in the form of bonuses and stock options are not common in Nigeria. The company size had a mean of 9.68 and a median of 9.50; there was no mode and the standard deviation was 1.48. The age of firm had a mean of 45.75 years, a median of 48 years, and a mode of 54 years with a standard deviation of 25.31 years. The distribution is positively skewed and there were few extreme scores to the right.

I also used descriptive statistics to summarize the corporate governance mechanisms of the 39 sampled non-financial companies listed on the NSE between 2011 and 2015. Table 3 tabulated these statistics using frequency

distribution to summarize the percentage of firms that exhibited the specified corporate governance characteristics selected for the study.

Table 3

Frequency distribution Table Showing the Characteristics of Corporate Governance (CG) of Sampled Firms (n=39)

Corporate Governance (CG) Mechanisms	Percentage (%) of Companies exhibiting Specified Corporate Governance Features
Board Size ≥ 4	100%
≥ 50% of the members of the board were composed of non-executive directors	100%
Strict compliance with SEC's code of corporate governance practices	92%
Audit committees ≥ 6 members	79%
At least 50% or more of audit committee members were non-executive directors	100%
CEO-Chair separation	100%
Number of board meetings ≥ 4	100%
Executive compensation ≥ $100,000	61.54%

Note. CG means corporate governance, SEC refers to the Nigerian Securities and Exchange Commission, CEO refers to the firms' chief executive officers

Although section 246 of the Nigerian CAMA, the main company legislation in Nigeria, requires a limited liability company to have at least two directors, most listed companies invariably have more than two. The size of the corporation depends on many factors, such as business conditions, the complexity of the firm's operations, and the firm's performance. All the sampled companies had more than four directors on the board. Another feature of the board that

emerged from the study was that non-executive directors constituted more than 50% of the of the board size. This is largely in compliance with the SEC's code of corporate governance that requires the majority of the board of directors be composed of nonexecutive and independent directors. Similarly, almost all the sampled firms comply with SEC's code of corporate governance especially as regards board composition, audit committee composition, and absence of CEO duality.

The 92% compliance with corporate governance principles and codes enables the firms to have independent board, independent audit committees, regular board meetings, and financial statements that are true and fair and comply with IFRS. The compliance has been aided by company legislations in Nigeria, the NSE listing requirements, the SEC's compliance enforcement activities, the appointment of internationally-reputed accounting firms as external auditors by most of the companies, and the recent establishment of the FRC of Nigeria with special enforcement powers in relation to accounts and audit of public companies. An independent director is one who has no material relationship with the company, either directly or indirectly, as officer of the firm, stockholder, debt holder, supplier, or consultant. Also, an independent director will not be a former employee, auditor, or consultant to the company. An independent director will also not be related with a director or a major shareholder or present or past auditor

of the firm. In Nigeria, virtually all the companies quoted on the NSE avoids CEO duality, as both the SEC, the FRC, and the listing requirements of the NSE discourage companies from combining the positions of the CEO and chair. The compliance with CEO duality rule meant that all the sampled companies had the same score on this mechanism of corporate governance.

Another corporate governance characteristic that emerged from the study was that most of the sampled companies had six members in the audit committee, divided equally between executive directors (three members) and nonexecutive directors (three members). Seventy-nine percent of the sampled firmed had an average of six members of the audit committee. This is also a reflection of legislation in Nigeria. Section 359 Subsection 3 of the CAMA established the audit committee for public companies. In Subsection 4 of section 359, the Act stipulated a maximum number of six members for audit committee. Most public companies in Nigeria just adopted the maximum number. It seemed the Act was not concerned with the committee's independence, as it requires equal number of company executives and shareholders' representatives to be on the committee. A bill for an Act to repeal CAMA of 1990 and enact the CAMA of 2016 is currently going through the Nigerian National Assembly, and the expectation is that when the bill becomes law, the National Assembly will have repealed this provision.

The number of board meetings indicates the level of board activity and members' involvement in the firm. In all the sampled companies, the average number of board

meeting was four during 2011 and 2015. Again, the minimum number of board meetings in a listed company is put at four by the SEC's corporate governance code. Most companies strictly complied with this stipulation although some held more than four meetings during this period. Meetings above the stipulated minimum became necessary either because of business exigencies or because there was an urgent matter that could not wait for the next quarter, although most companies stuck to the quarterly meetings regardless of the circumstances. Of the 39 sampled companies, 61.54% paid their executives an average of $100,000 per year. Stock options and bonuses as compensation to executives are not common in Nigeria. But what are common are provisions of car and driver for the executive, generous and expensive paid holidays, private security, telephone and other utility bills, and subsidized children education for the top executives. These benefits-in-kind are difficult to monetize and are not disclosed in the financial statements.

Inferential Statistics of Sampled Companies

In this section of the dissertation study, I present inferential statistics of the 39 sampled firms using multiple regression techniques. This section starts with the analysis of the linear relationship between ROA and corporate governance mechanisms and then the presentation of regression results and ANOVA tables.

The Relationship between Corporate Governance and ROA

The multiple regression equation for the model with ROA as the corporate governance mechanisms as the independent or predictor variables is as follows:

$ROA = \alpha_0 + \beta_1 BodInd + \beta_2 AuditCommInd + \beta_3 BodSize + \beta_4 BodMtgs + \beta_5 ExecComp + \beta_6 FirmAge + \beta_7 FirmSize + \varepsilon$

Where

ROA = return on assets

α_0 = the intercept of the regression equation,

BodInd = board independence,

AuditCommInd = audit committee independence,

BodSize = board size,

BodMtgs = number of board meetings,

ExecComp = executive compensation,

FirmAge = firm age,

FirmSize = firm size,

β_1, β_2, β_3, β_4, β_5, β_6, and β_7 are the beta coefficients of the regression model, and ε = random error

The ability of the corporate governance mechanisms to explain ROA was tested using *t* distribution test and ANOVA at the alpha level of .05 or 5%. The null and alternative hypotheses are as follows:

$H_{0:}\ \beta_1 = \beta_2,\ \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_{7\,=\,0}$

$H_{1:}$ Not all the β_i (i=1….7) are zero

I performed the analysis using SPSS. The multiple regression analysis results and ANOVA table for the test are presented in Table 4 and Table 5. The overall multiple regression equation with return on assets (ROA) as the dependent variables is presented as follows:

ROA = -.473 + .051*BodInd + .052*AuditCommInd + .003*BodSize + .03*BodMgts + .000000016*ExecComp + .00*FirmAge + .002*FirmSize + ε

A multiple regression analysis was conducted to predict ROA (outcome variable) from board independence, audit committee independence, board size, number of board meetings, executive compensation (independent variables), and the firms' size and age (mediating variables). The result of the regression analysis showed that board independence, audit committee independence, board size, number of board meetings, executive compensation, and the firms' size and age did not account for a significant amount of the variability in ROA, R^2 = .077, $F(7, 31)$ =.368, p = .91. The adjusted R^2 of

-.132 indicated that about 13.2 % of the variability in ROA was explained by the selected corporate governance mechanisms. The decision is, therefore, to accept the null hypothesis that all the coefficients are zero and reject the alternative hypothesis that not all the coefficients are zero. There is thus little

evidence to support the statement that there exists a statistically significant relationship between corporate governance mechanisms and ROA. The results of the regression were tabulated in Table 4 below. The ANOVA result was displayed in Table 5 below.

Table 4

Multiple Regression Results for Independent Variables (n = 39), y = Return on Assets (ROA)

Intercept	**BodInd**	**AuditCommInd**	**BodSize**	**BodMtgs**	**ExecComp**	**FirmAge**	**FirmSize**	
b	-.473	.051	.052	.003	.030	.00000001632	.000	-.002
s(b)	.736	.128	.074	.012	.022	.000	.003	.017
t	-.642	.401	.695	.229	1.371	.049	.108	-.106
p-value	**.526**	**.691**	**.492**	**.820**	**.180**	**.961**	**.915**	**.916**

Table 5

ANOVA Table for the Multiple Regression of Independent Variables (n = 39), y =ROA

Source	**Sum of Squares**	**df**	**Mean Square**	**F**	**$F_{Critical}$**	***p*-value**
Regression	.038	7	.005	.368	2.32	.914

Error	.462	31	.015		
Total	.501	38			
			R^2 .077		Adjusted R^2 -.132

Predictors: (Constant). Board independence, Audit committee independence, Board size, Board meetings, Executive compensation, Firm size, Firm age

Dependent Variable: ROA

By testing the hypothesis for each variable of the regression model, I was able to determine if any of the coefficients was different from zero. A *t* test will explain the variation in ROA and the variable that has no explanatory power will be eliminated from the regression model.

In regard to board independence, the hypothesis to be tested is:

H_0: $\beta_1 = 0$

H1: $\beta_1 \neq 0$

The regression results in Table 4 showed the *p* value for board independence (BodInd) was .691, which is greater than 5% alpha level of significance. Using a two-tailed test, the critical points of t distribution with 31 degrees of freedom at α =.05 is 2.021. The rejected area at 95% confidence interval indicates that the calculated t statistic value of absolute 0.401 is < the critical value of *t* of 2.04; I cannot reject the null hypothesis that $\beta_1 = 0$. I conclude that board independence is statistically not significant and cannot be a predictor of or used to explain the variations in ROA.

An independent audit committee is one of the systems of controls that the agency theory predicts is expected to improve financial performance. Independence is assured by having knowledgeable and independent external and independent directors on the committee. In Nigeria, the composition of audit committee is legislated by the CAMA, stipulating six members divided equally between executive and nonexecutive directors. For independence of audit committee, the hypothesis is:

$H_{0:}\ \beta_2 = 0$

$H_1: \beta_2 \neq 0$

Using a two-tailed test, the critical points of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 2.021. The rejected area at 95% confidence interval indicates that the calculated *t* statistic value of absolute 0.695 is < the critical value of *t* of 2.04, so the null hypothesis that $\beta_{1=}\ 0$ cannot be rejected. I conclude that audit committee independence is statistically not significant and cannot be used to explain and predict the variations in ROA.

The size of the board could give a firm a competitive edge, especially when the members are experienced, devote time and resources to the company, and use their industry and business connections to further the objective of the corporation. When the size of the board is too big, critical decisions may be delayed, infighting may become the norm rather than the exception, and the cost

of maintaining a large board may be financially unjustifiable. If the size of the board is too small on the other hand, the firm may miss many business opportunities or make poor business and strategic decision that have not been well-considered because of the absence of high-caliber business leaders on the board of directors. It is expected that a fairly large board will improve organizational financial performance. For the board size, the hypothesis is:

H_0: $\beta_3 = 0$

H_1: $\beta_3 < 0$

Using a one-tailed test, the critical points of t distribution with 31 degrees of freedom at $\alpha = .05$ is 1.684. The computed *t* statistic in Table 4 is .229, which is less than the value of the *t* distribution of 1.684. The *p* value of .820 is > the .05 significance level and for this reason I cannot reject the null hypothesis, H_0, that the beta coefficient is zero. The coefficient of board size is statistically not significant, and cannot be used to explain and predict the variations in the value of ROA.

It is during board meetings that critical financial and other decisions and policies are made. The number of board meetings indicates the level of involvement of directors in the business and the attention paid to critical elements of controls and monitoring, such as financial and credit controls, risk management, executive compensation, personnel issues, and legal and regulatory

matters. The number of board meetings, all things being equal, ought to improve organizational financial performance, especially if the members of the board devote quality time and attention to critical issues affecting the corporation. The number of board meetings, like the composition of audit committee, is legislated in Nigeria, as the Company Acts stipulate at least four meetings in a year, on a quarterly basis. Most companies just hold four meetings whether the business exigencies demand it or not. I believe the number of board meetings should improve corporate financial performance. For the number of board meetings, the hypothesis is as follows:

H_0: $\beta_4 = 0$

H_1: $\beta_4 < 0$

Using a one-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 1.684. The computed *t* statistic in Table 4 of absolute 1.371 is less than the critical value of *t* of 1.684, and the *p*-value of .180 is > than the .05 alpha level of significance. Thus the number of board meetings is statistically not significant and cannot be used to explain or predict the values of ROA. I accept the null hypothesis, H_0 and reject the alternative hypothesis, H_1.

Researchers have extensively studied the impact of executive compensation on the financial performance of organizations in many economies, but the impact in the Nigerian economic landscape is not clearly known.

Adequate executive compensation ought to attract the best talent to the organization and improve organizational financial performance. Some other researchers believe that the greater the executive compensation the lower the firm's financial performance. I take the view that higher executive compensation lead to better performance. The hypothesis to test the impact of executive compensation on organizational performance is as follows:

H_0: $\beta_5 = 0$

H_1: $\beta_5 \neq 0$

Using a two-tailed test, the critical points of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 2.021. The rejected area at 95% confidence interval indicates that the calculated *t* statistic value of absolute 0.049 is < the critical value of *t* of 2.04, and the computer alpha value is .961, so the null hypothesis that $\beta_{5=} 0$ cannot be rejected. I conclude that, among Nigerian nonfinancial firms, executive compensation is not statistically significant and cannot be used to explain and predict ROA.

The age of the firm may set limits to the changes that it can make to its operations in confronting competition, economic shocks, and technological disruptions in its industry. The age of the corporation may be an asset or a constraint on the actions of the firm. I take the view that age and experience are critical for a robust implementation of corporate governance practices and improvement in organizational performance. The

hypothesis to test the age of the firm as a component of corporate governance mechanisms are as follows:

H_0: $\beta_6 = 0$

H_1: $\beta_6 < 0$

Using a one-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 1.684. The computed *t* statistic in Table 4 of absolute .108 is less than the critical value of *t* of 1.684; and the *p*-value of .915 is > than the .05 alpha level of significance. Thus, the coefficient of executive compensation is statistically not significant and cannot be used to explain or predict the values of ROA. I accept the null hypothesis, H_0, and reject the alternative hypothesis, H_1.

The size of a firm affords it many opportunities in the market place: Research and development opportunities, ability to attract the best talents to the firm, and capacity to benefit from the advantages conferred when companies are large enough to dictate to suppliers and finance providers. For the size of the firm, the hypothesis is:

H_0: $\beta_7 = 0$

H_1: $\beta_7 < 0$

Using a one-tailed test, the critical points of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 1.684. The computed *t* statistic in Table 4 is -.106. The *p* value of .916 is greater than the .05 significance level; and for this reason I cannot

reject the null hypothesis, H_0, that the beta coefficient is zero. Firm size is statistically not significant, and cannot be used to explain and predict the variations in the value of ROA.

Return on Assets (ROA) and Corporate Governance Mechanisms. Past research indicated that board and audit committee independence has a statistically significant association with organizational performance (Al-Najjar, 2014; Ioana & Mariana, 2014; Malthotra, Poteau, & Fritz, 2013). The BRT and the Cadbury Committee recommended an independent board and audit committee as good corporate governance practices. The SOX made the independence of the board and audit committees as the main goal of a desirable corporate governance practice. The independence of audit and board committees has thus been recognized as significant predictors of organizational performance. To determine the relationship between ROA and the chosen corporate governance mechanisms, I used a hierarchical regression in SPSS and entered the variables in three blocks, each block representing a step in the hierarchy.

Based on past research, I selected and entered board independence and audit committee independence in the first model as most significant predictors of organizational performance. In the second model, I selected board size, board meetings, and executive compensation as the next most significant predictors of company financial performance. I used forced entry as the method of

entering the variables in the models. Finally, in the third model, I entered the age and size of the firm as the mediating variables. The results of the hierarchical regression was displayed in Table 6 below, indicating that the model was improved when all the five predictor and two mediating variables were included in the model (Model 3).. Board independence had a positive but not significant relationship with return on assets ROA and audit committee independence also has a positive but not significant association with ROA. In Model 2, board size, the number of board meetings, and executive compensation were shown to have positive but not significant association with ROA. The summary results displayed in Table 6 show that the adjusted R^2 in model 1 with board independence and audit committee independence as the independent variables was -.043. In Model 2, the addition of board size, number of board meetings, and executive compensation increased the adjusted R^2 to -.064, showing that board size, number of board meetings, and executive compensation improved the model by -.021. The adjusted R^2 in Model 3 was -.132 when the age and size of the firm were added to the model; an addition of -.068. The improvement in the model when the mediating variables of age and size of the firm were added was over 100%. The improvement in the model brought by adding age and size of the firm to the model indicated an improvement to the model over and above the predictive power of the five corporate governance mechanisms, indicating that the age and

size of the firm did improve the model and are mediators in the relationship between corporate governance mechanisms and organizational performance measured by ROA. R^2

increased with each addition of independent and mediating variables, and the adjusted R^2 was maximized at -.132 (Model 3 in Table 6) when all the variables were included in the model.

Board independence and audit committee independence accounted for 4.3% of the variations in ROA but board independence, audit committee independence, board size, number of board meetings, and executive compensation accounted for 6.4%, an improvement of 49% between Model 1 and Model 2. The change in R^2 between Model 2 and Model 3 was .068, showing that the age and size of the firm significantly mediate the relationship between corporate governance mechanisms and ROA. The two mediating variables accounted for 6.8% of the variations in ROA with the minimum standard error estimate of .12212, whereas the five corporate governance mechanisms were only able to explain 6.4% of the variations in ROA.

These findings were unexpected because board independence is supposed to enable the board to control, monitor, and advice the managers to efficiently organize the firm's resources. Board and audit committee independence have been conceptualized by both the regulators and researchers as

important components of corporate governance practice that enhance corporate performance (Arora & Sharma, 2015; Sahu & Manna, 2014; Zona, 2016). Although both the board and audit committee independence are positively related to ROA, the association is not significant and the power of explanation of the variables is extremely weak. It seems that the Nigerian corporation is a victim of overregulation. The number and composition of audit committee members are dictated by Nigerian company law and corporate governance codes. What many firms do is follow the letter of the law and not what the law is trying to achieve; and this is why the scoring on the independence of audit committee was virtually the same for all firms. Also in all firms, there was absence of CEO duality. This is because the Nigerian SEC corporate governance codes stipulate that the chair of the board cannot be the CEO at the same time. All companies complied with this directive from the SEC regardless of the different circumstances of the organizations.

Similarly, the number of directors on the board should be the right size for the complexity of the organization and its operations. But what is important is the mix of expertise among the members not the absolute size per se. I found a positive but not significant association between the size of the board and ROA but its explanatory power is weak. The number of meetings shows the level of board involvement in the affairs of the firm, so it is expected that the number of

board meetings should be positively associated with organizational performance. Again, as in audit committee and board composition, the number of board meetings is a subject that legislation affects in part in Nigeria. Public companies are required to hold a minimum of four board meetings in a year. Most companies comply with the numbers of meetings dictated by the regulators regardless of specific circumstances of their firm. I found a positive but not significant relationship between the number of meetings and ROA.

Adequate executive compensation ought to motivate executives to perform better. Appropriate executive compensation should also attract competent workers to the firm. I found the beta coefficient of executive compensation was near zero; indicating that executive compensation was not associated with ROA. Firm age had no relationship with ROA and it cannot predict any variations in the outcome variable. The age of the firm could be an impediment to growth in an era when businesses must innovate and be swift to market. However, the size of the firm could be equally of a tremendous advantage and a liability. The result of the regression showed a negative but statistically not significant association between firm size and ROA.

Table 6

Model Summary of Hierarchical Regression Results

Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*
1	.108	.012	-.043	.11724

2	.276	.076	-.064	.11840
3	**.277**	**.077**	**-.132**	**.12212**

Model 1: Predictors: (Constant), Audit Committee Independence, Board Independence
Model 2: Predictors: (Constant), Audit Committee Independence, Board Independence, Board Size, Board Meetings, Executive Compensation
Model 3: Predictors: (Constant), Audit Committee Independence, Board Independence, Board Size, Board Meetings, Executive Compensation, Firm Age, Firm Size

In Table 7 and Table 8, I presented the regression and ANOVA Tables of the results respectively. The regression equation for the hierarchical regression model with the highest predictive power (Model 3) and ROA as the dependent variable is as follows:

ROA = -.473 + .051β_1 + .052β_2 + .003β_3 + .030 β_4 -.002 β_7 + ε. Executive compensation and firm age were removed from the equation because the result of the hierarchical regression indicated that there was no relationship between executive compensation and firm age and ROA.

Table 7

Hierarchical Regression Result for Independent Variables vs. ROA (n = 39)

	Intercept	**BOD IND**	**AUDIT COMMIND**	**BOD SIZE**	**BOD MGTS**	**EXEC COMP**	**FIRM AGE**	**FIRM SIZE**
b	**-.473**	**.051**	**.052**	**.003**	**.030**	**.00000001632**	**.000**	**-.002**
***std.* Error**	**.736**	**.128**	**.074**	.012	.022	**.000**	**.003**	**.017**

s(b)	**.0000**	**.072**	**.126**	**.052**	**.241**	**.029**	**.063**	**-.024**
t	**-.642**	**.401**	**.695**	**.229**	**1.371**	**.049**	**.108**	**-.106**
p-value	.526	.691	.492	.820	.180	.961	.915	.916

Table 8

ANOVA Table for Hierarchical Regression Results- Independent Variable vs. ROA (n =39)

Source	**Sum of Squares**	**df**	**Mean squares**	**F**	**p-value**	
Regn.	.038	7	.005	.368	.914	*s* .12212
Error	.462	31	.015			Adjusted
Total	.501	38		R^2 .077		R^2 -.132

With the hierarchical regression method, I developed a parsimonious regression equation with board independence (BODIND), audit committee independence (AUDCOMMIND), board size (BODSIZE), number of board meetings (BODMGTS), and firm size (FIRMSIZE) as the predictor variables. The results of the hierarchical regression showed that board independent, audit committee independence, board size, number of board meetings, and firm size

were the explanatory variables, but executive compensation and the age of the firm have no relationship with ROA and have been removed from the equation. All the five explanatory variables used in the equation, except firm size (FIRMSIZE), were positively associated with ROA. Firm size was found to be negatively related to ROA. The regression results showed that there was no relationship between ROA and executive compensation and there was also no relationship between the age of a firm and organizational performance measured by return on assets (ROA).

Relationship between Corporate Governance and ROCE

The multiple regression equation for the model with ROCE as the explanatory variable and corporate governance as the independent variable is:

$$ROCE = \alpha_0 + \beta_8 BdInd + \beta_9 AuditCommInd + \beta_{10} BodSize + \beta_{11} BodMtgs + B_{12} ExecComp + \beta_{13} FirmAge + \beta_{14} FirmSize + \varepsilon$$

Where

ROCE = return on capital employed

α_0 = the intercept of the regression equation,

BodInd = board independence,

AuditCommInd = audit committee independence,

BodSize = board size,

BodMtgs = number of board meetings,

ExecComp = executive compensation,

FirmAge = firm age,

FirmSize = firm size,

$B_{8,}$ β_9, β_{10}, β_{11}, β_{12}, β_{13}, and β_{14} are the beta coefficients of the regression model, and ε = random error

The null and alternative hypotheses to test for the existence of a linear relationship between ROE and any of the independent variables are stated as follows:

$H_{0:}$ $\beta_8 = \beta_9 = \beta_{10} = \beta_{11} = \beta_{12} = \beta_{13} = \beta_{14} = 0$

$H_{1:}$ Not all the β_i (i= 8….14) are zero

To test the null hypothesis that the regression beta coefficients are all zero, I used the *t* distribution test and ANOVA at the 5% confidence level of statistical significance. In Table 9, I present the overall multiple regression results with ROCE as the predictor variable and in Table 10 I tabulated the ANOVA computed with SPSS. To find a linear relationship between ROCE and corporate governance mechanisms, I used the hierarchical regression with forced entry. The multiple regression equation for the relationship between ROCE and corporate governance mechanisms is as follows:

$$ROCE = -2.245 + .188\beta_8 + .269\beta_9 - .009\beta_{10} + .033\beta_{11} + .0000005671\beta_{12} + .005\beta_{13} + .044\beta_{14} + \varepsilon$$

Table 9

Multiple Regression Results of Independent Variables and Return on Capital Employed (ROCE) (n=39)

	Intercept	**BOD IND**	**AUDIT COMMIND**	**BOD SIZE**	**BOD MGTS**	**EXEC COMP**	**FIRM AGE**	**FIRM SIZE**
b	**-2.245**	**.188**	**.269**	**-.009**	**.033**	**.0000005671**	**.005**	**.044**
std. Error	2.004	.350	.202	.032	.059	.000	.007	.047
s(b)	.0000	.094	.236	-.065	.095	-.357	.374	.204
t	-1.120	538	1.333	-.292	.550	-.624	.653	.519
p-value	.271	.595	.192	.772	.586	.537	.519	.358
	VIF	1.079	1.096	1.729	1.034	11.418	11.504	1.668

Table 10

ANOVA Table for the Multiple Regression (n= 39), y = ROCE

Source	**Sum of Squares**	**df**	**Mean of Squares**	**F**	**$F_{Critical}$**	***p*-value**
Regression	.439	7	.063	.568	2.32	.776
Error	3.427	31	.111		Adjusted	

Total	3.867	38	R^2 .114	R^2 -.086

Predictors: (Constant), Audit Committee Independence, Board Independence, Board Size, Board Meetings, Executive
Compensation, Firm Age, Firm Size

Dependent Variable: ROCE

The *f* statistic of .568, *p* value of .776, and adjusted R^2 of -.086 were indications of a weak association between corporate governance and ROCE. I conducted statistical hypothesis tests for the individual predictor variables to determine the beta coefficients that are different from zero. I also conducted *t* test to provide explanation of the variations in ROE and to identify the variables that had weak or no explanatory power so as to remove them from the regression model.

The impact of board independence on ROCE as the metric of financial performance is positive but not significant. The hypothesis for board independence is as follows:

H_o: $\beta_8 = 0$

H_1: $\beta_8 \neq 0$

The multiple regression results in Table 9 show that board independence has a *p* value of .595, which is > the .05 significance level. Using a two-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 2.021. At 95% level of confidence, the rejection region indicates that the computed *t* test

statistics of absolute 0.538 is less than the critical *t* of 2.021. I cannot reject the null hypothesis that β_8 is 0. The independence of the board is not statistically significant and cannot predict and explain the variations in ROCE.

It is expected that if the audit committee is independent, it will increase the financial performance of the firm through an effective control on reporting and the quality of financial statement of the firm. For audit committee independence, the hypothesis is:

H_0: $\beta_9 = 0$

$H1$:$\beta_9 > 1$

Using one-tailed test, the critical points of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 1.684. The computed *t* statistic of 1.333 is < the critical *t* of 1.684. The *p* value of .192 is also > the .05 significance level, I cannot reject the null hypothesis, H_0, that the beta coefficient is zero in favor of *H*1. The coefficient of audit committee independence is statistically not significant and cannot be used to explain or predict ROCE.

I hypothesized that the larger the board size, the more expertise and value are brought to the firm and the better the financial performance. For board size, the hypothesis is:

H_0:$\beta_{10} = 0$

H1: $\beta_{10} > 0$

Using one-tailed test, the critical points of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 1.684. The computed *t* statistic of -.292 is < the critical *t* of 1.684. The *p* value of .772 is also > the .05 significance level, so I cannot reject the null hypothesis, H_0, that the beta coefficient is zero in favor of H_1 that the beta coefficient is greater than zero . I conclude that the coefficient of board size is statistically not significant and cannot be used to explain the variations or changes in ROCE.

The impact of the number of board meetings on a firm's performance is not clearly known, but can be either positive or negative. When meetings are well-organized and purposeful, the impact can be high and vice versa. The hypothesis for the number of board meetings is:

H_0: $\beta_{11} = 0$

H_1: $\beta_{11} \neq 0$

Using two-tailed test, the critical points of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 2.021. The computed *t* statistic of .550 is < the critical *t* of 2.021. The *p* value of .586 is > the .05 significance level, so I cannot reject the null hypothesis, H_0, that the beta coefficient is zero in favor of H_1 that the beta coefficient is greater than zero . Thus the coefficient of the number of meetings is

statistically not significant and cannot be used to explain the variations or changes in ROCE.

I believe executive compensation serves as motivations to executives and other staff to improve corporate financial performance, especially if part of executive compensation is linked to firm performance. For executive compensation, the hypothesis is as follows:

H_0: $\beta_{12} = 0$

$H_{1::}$ $\beta_{12} > 0$

Using one-tailed test, the critical points of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 1.684. The computed *t* statistic of -.624 is < the critical *t* of 1.684. The *p* value of .537 is > the .05 significance level, so I cannot reject the null hypothesis, H_0, that the beta coefficient is zero in favor of H_{12} that the beta coefficient is greater than zero. I conclude that the coefficient of executive compensation is statistically not significant and cannot be used to explain the variations or changes in ROCE.

I believe that the age of the firm can be equated to experience. With experience comes the ability to avoid costly mistakes. I hypothesized that the age of the firm improves financial performance. The hypothesis is:

H_0: $\beta_{13} = 0$

H_1: $\beta_{13} \neq 0$

Using two-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 2.021. The computed *t* statistic of .653 is < the critical *t* of 2.021. The *p* value of .519 is > the .05 significance level, so I cannot reject the null hypothesis, H_0, that the beta coefficient is zero in favor of H_1 that the beta coefficient is greater than zero. Thus the coefficient of firm age is statistically not significant and cannot be used to explain the variations or changes in ROCE.

My hypothesis is that the size of the firm confers certain benefits on it such as buying in bulk, ability to negotiate contracts with suppliers and get a fairer deal than smaller firms get, and obtaining cheaper funding rates from financial institutions. For the size of the firm, the hypothesis is:

H_0: $\beta_{14} = 0$

H_1: $\beta_{14} > 0$

Using one-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 1.684. The computed *t* statistic of .933 is < the critical *t* of 1.684, and the *p* value of .358 is > the .05 significance level. So I cannot reject the null hypothesis, H_0, that the beta coefficient is zero in favor of H_{14} that the beta coefficient is greater than zero. I conclude that the coefficient of firm age is statistically not significant and cannot be used to explain the variations or changes in ROCE.

The statistical results showed that all the independent variables except board size and executive compensation were positively but not significantly associated with ROCE. Board size was negative and not statistically and significantly related to ROCE. On the other hand, executive compensation was found to be not related to ROCE. In other words, none of the independent variables can be used to explain the variations in the outcome variable, ROCE.

The model summary in Table 11 shows the result of the hierarchical regression that displays the change in R^2 as more variables were added to the model. The first model (Model 1) used board independence and audit committee independence as the most important predictors of ROCE. The adjusted R^2 in Model 1 was .002. In Model 2, I added board size, number of board meetings, and executive compensation to the model. In Model 2, R^2 increased to .076 from .054 in the previous model, a change of .022. The adjusted R^2 increased to -.064 from .002 in Model 1, a change of .086. This means that adding board size, number of board meetings, and executive compensation improved the model but in the other direction.

The R^2 in Model 3 was .114 and the adjusted R^2 was -.086. Firm age and firm size were added to the model in Model 3 and the improvement (change) in R^2 and adjusted R^2 was .038 and .022 respectively. The adjusted R^2 was maximized at -.086 when all the five independent and two mediating

variables were added to the model in a hierarchical regression using the forced entry method. Board independence (BODIND), audit committee independence (AUDCOMMIND), board size (BODSIZE), number of board meetings (BOGMGTS), executive compensation (EXECOMP), firm age (FIRMAGE), and firm size (FIRM SIZE) were the variables with the most explanatory power with adjusted R^2 of -.086. Together, the five corporate governance mechanisms and two mediating variables in the multiple regression model explained 8.6% of the variations in ROCE.

The multiple regression results tabulated in Table 12 showed that board independence was positively but not significantly associated with ROCE. Similarly, audit committee independence, number of board meetings, firm age, and firm size were all positively related to ROCE. Board size and executive compensation were negatively related to ROCE but the coefficient of executive compensation was very close to zero, indicating that this variable was not related to ROCE. These findings were, again, not expected because these independent variables were expected to be good predictors of ROCE, but the evidence did not support my expectation. One of the reasons may be because of the over legislation and firms' wholesale and uncritical implementation of corporate governance codes that was referred to earlier. The other reason may be because of so many imperfections is this market, such as pricing of shares, inadequate disclosure in

financial statements, and problems of the macro-economic situation in the country.

Table 11

Model Summary of Hierarchical Regression Results Dependent Variable ROCE (n = 39)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.233	.054	.002	.31869
2	.276	.076	-.064	.32905
3	**.337**	**.114**	**-.086**	**.33250**

Model 1: Predictors: (Constant), Audit Committee Independence, Board Independence
Model 2: Predictors: (Constant): Audit Committee Independence, Board Independence, Board Size, Board Meetings,
Executive Compensation
Model 3: Predictors: (Constant): Audit Committee Independence, Board Independence, Board Size, Board Meetings
Executive Compensation, Firm Age, Firm Size
Independent Variable: ROCE

The multiple regression results and ANOVA Table of the hierarchical method are displayed in Table 12 and Table 13 respectively. The hierarchical multiple regression equation, which was parsimoniously determined from the results of the regression conducted is:

ROCE = -2.245 + .188*BODIND + .269*AUDCOMMIND - .009*BODSIZE + .033*BODMTGS + .005*FIRMAGE + .044*FIRMSIZE

Table 12

Multiple Regression Results of Independent Variables and Return on Capital Employed (ROCE) (n=39)

	Intercept	**BOD IND**	**AUDIT COMMIND**	**BOD SIZE**	**BOD MGTS**	**EXEC COMP**	**FIRM AGE**	**FIRM SIZE**
b	**-2.245**	**.188**	**.269**	**-.009**	**.033**	**.0000005671**	**.005**	**.044**
std. Error	2.004	.350	.202	.032	.059	.000	.007	.047
s(b)	.0000	.094	.236	-.065	.095	-.357	.374	.204
t	-1.120	.538	1.333	-.292	.550	-.624	.653	.519
p-value	**.271**	**.595**	**.192**	**.772**	**.586**	**.537**	**.519**	**.358**

Table 13

ANOVA Table for Multiple Regression Results- Independent Variables vs. ROCE

Source	**Sum of Squares**	**df**	**Mean of Squares**	**F**	**$F_{Critical}$**	***p*-value**
Regression	.439	7	.063	.568	2.32	.776
Error	3.427	31	.111		Adjusted	
Total	3.867	38	R^2 .114		R^2 -.086	

With the hierarchical regression, the most parsimonious regression equation includes all the variables except executive compensation, which are board independence (BODIND), audit committee independence (AUDCOMMIND), board size (BODSIZE), number of meetings (BODMGTGS), firm age (FIRMAGE), and firm size (FIRSIZE). The multiple regression results showed that three independent (board independence, audit committee independence, and number of board meetings) and two mediating variables (firm

age and firm size) were positively related to ROCE, one independent variable (board size) was negatively but not significantly associated with the ROCE. Executive compensation was not related to ROCE.

The Relationship between Corporate Governance and Tobin's Q

The multiple regression equation for the model with Tobin's Q as the outcome variable and the corporate governance mechanisms as the predictor variables is:

$$\text{Tobin's Q} = \alpha_0 + \beta_{15}\text{BdInd} + \beta_{16}\text{AuditCommInd} + \beta_{17}\text{BodSize} + \beta_{18}\text{BodMtgs} + B_{19}\text{ExecComp} + \beta_{20}\text{FirmAge} + \beta_{21}\text{FirmSize} + \varepsilon$$

Where

Tobin's Q = ratio of the firm's value to the replacement of its assets

α_0 = the intercept of the regression equation,

BodInd = board independence,

AuditCommInd = audit committee independence,

BodSize = board size,

BodMtgs = number of board meetings,

ExecComp = executive compensation,

FirmAge = firm age,

FirmSize = firm size,

B_{15}, β_{16}, β_{17}, β_{18}, β_{19}, β_{20}, and β_{21} are the beta coefficients of the regression model, and ε = random error

The hypothesis to test the linear relationship between Tobin's Q ratio and the independent variables is stated as:

H_0: $B_{15} = \beta_{16} = \beta_{17} = \beta_{18} = \beta_{19} = \beta_{20} = \beta_{21} = 0$

$H1$: Not all the β_i (i=15…21) are zero

The multiple regression results and computed ANOVA Table to test the relationship is presented in Table 14 and Table 15. The overall multiple regression equation with Tobin's Q as the dependent variable and corporate governance mechanisms as the independent variables is:

Tobin's Q = -8.538 - 3.699*BODIND + 5.745*AUDCOMMIND - .332*BODSIZE + 1.434*BODMTGS - .000009859*EXECOMP + .039*FIRMAGE + .866*FIRMSIZE + ε

Table 14

Multiple Regression Results of Independent Variables and Tobin's Q (n=39)

	Intercept	**BOD IND**	**AUDIT COMMIND**	**BOD SIZE**	**BOD MGTS**	**EXEC COMP**	**FIRM AGE**	**FIRM SIZE**
b	**-8.538**	**-3.699**	**5.745**	**-.332**	**1.434**	**-.000009859**	**.039**	**.866**
std. Error	54.237	9.469	5.463	.876	1.609	.000	.191	1.273

s(b)	.0000	-.069	.187	-.085	.154	-2.30	.118	.149
t	-.157	-.391	1.052	-.379	.891	-.401	.205	.681
p-value	**.876**	**.699**	**.301**	**.708**	**.380**	**.691**	**.839**	**.501**
VIF	**1.079**	**1.096**	**1.729**	**1.034**	**11.418**	**11.504**	**1.668**	

Table 15

ANOVA Table for Multiple Regression Results for the Independent Variables and Tobin's Q (n = 39)

Source	**Sum of Squares**	**df**	**Mean of Squares**	**F**	**$F_{Critical}$**	***p*-value**
Regression	299.343	7	42.763	.528	2.32	.807
Error	2510.953	31	80.998		Adjusted	
Total	2810.296	38	R^2 .107		R^2 -.095	

Predictors: (Constant), Audit Committee Independence, Board Independence, Board Size, Board Meetings,
Executive Compensation, Firm Age, Firm Size
Dependent Variables: Tobin's Q

Table 15 displays the *f* value (7, 31) of .528 which is < than *f* critical of 2.32, the *p* value of .807 is > than the alpha level of significance 0f .05 with R^2 of .107 and the adjusted R^2 of -.095. The adjusted R^2 of .095 indicated that only 9.5% of the variation in Tobin's Q was explained by the corporate governance mechanisms. With the *p* value of .807, the decision is to accept the null hypothesis that all the coefficients are zero and to reject the alternative hypothesis that some of the

coefficients are different from zero. There is not enough statistical evidence to support a statistically significant relationship between at least one of the corporate governance mechanisms and Tobin's Q.

I used statistical hypothesis test to examine which of the individual variable's slopes are different from zero. A *t* test was conducted to determine the variables that can help predict the variations in Tobin's Q.

The influence of board independence on Tobin's Q was negative. The hypothesis is:

H_0: $\beta_{15} = 0$

$H_{1:}$ $\beta_{15} \neq 0$

The multiple regression result in Table 14 showed the *p* value for board independence (BOIDIND) is .699, which is greater than the alpha level of significance of .05. Using two-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 2.021. The rejection region at 95% significance level indicated that the computed t test statistic of absolute value of -.391 was less than the critical *t* of 2.021 so I cannot reject the null hypothesis that β_{15} was 0. Thus, board size is statistically not significant and cannot be used as a predictor of Tobin's Q.

It is expected that an independent audit committee will increase organizational value. The hypothesis to test the relationship between Tobin's Q and audit committee independence is:

H_0: $\beta_{16} = 0$ H_1: $\beta_{16} \neq 0$

The multiple regression result in Table 14 shows the *p* value for audit committee independence (AUDCOMMIND) is .301, which is greater than the alpha level of significance of .05. Using a two-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 2.021. The rejection region at 95% significance level indicated that the computed *t* test statistic of absolute value of 1.052 was less than the critical *t* of 2.021 so I cannot reject the null hypothesis that β_{16} was 0. Thus, the independence of audit committee was statistically not significant and cannot be used to explain and predict variations of Tobin's Q.

I believe that the size of the board can positively contribute to the company's value by increasing the level of board members' deliberation and diversity of opinion in the business of the firm. For board size, the hypothesis is:

H_0: $\beta_{17} = 0$

H_1: $\beta_{17} > 0$

Using one-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 1.684. The computed *t* statistic of -.379 is < the critical *t* of 1.684. The *p* value of .708 is > the .05 significance level, so I cannot reject the null hypothesis, H_0, that the beta coefficient of β_{17} was zero. I conclude that the coefficient of board size was statistically not significant and cannot be used to explain the variations or changes in Tobin's Q.

It is expected that the number of board meetings will increase board involvement and through this the firm's value. The hypothesis for the number of board meetings is:

$H_{0:}\ \beta_{18} = 0$

$H_{1:}\ \beta_{18} > 0$

Using one-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 1.684. The computed *t* statistic of .891 is < the critical *t* of 1.684. The *p* value of .380 is > the .05 significance level, so I cannot reject the null hypothesis, H_0, that the beta coefficient of β_{18} is zero. I conclude that the coefficient of the number of board meetings was statistically not significant and cannot be used to explain variations in Tobin's Q.

Adequate financial compensation to executives will motive them to perform better and increase the firm's value, especially if the total emolument

includes a portion that is linked to the company's performance. The hypothesis for executive compensation is:

$H_{0:}\ \beta_{19} = 0$

$_{H1}$: $\beta_{19} > 0$

Using one-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ is 1.684. The computed *t* statistic of -.401 was < the critical *t* of 1.684. The *p* value of .691 was > the .05 significance level, so I cannot reject the null hypothesis, H_0, that the beta coefficient of β_{19} is zero. I conclude that the coefficient of the number of executive compensation is statistically not significant and cannot be used to explain Tobin's Q.

The age of the firm is a proxy for experience, which insulates a company from costly strategic mistakes and errors that could easily cause problems for an inexperienced company. I hypothesized that firm age was positive and statistically associated with Tobin's Q. The hypothesis for the age of the firm is:

$H_{0:}\ \beta_{20} = 0$

$H_{1:}\ \beta_{20} \neq 0$

The multiple regression result in Table 14 shows the *p* value for the age of the firm was .839, which was greater than the alpha level of significance of .05. Using a two-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ was 2.021. The rejection region at 95% significance level indicated that the computed *t* test statistic of absolute value of .205 was less than the critical *t* of 2.021, so I cannot reject the null hypothesis that β_{20} was 0. Thus, the age of the firm was statistically not significant and cannot be used to explain and predict Tobin's Q.

The size of a company indicates the volume of the transaction it can do, its negotiating power, and the level and amount of business risks it can assume. Because risks and returns are closely related, the size of a company should increase its financial performance. The hypothesis for firm size is:

$H_{0:}\ \beta_{21} = 0$

$H_1: \beta_{21} \neq 0$

The multiple regression result in Table 14 shows that the *p* value for the size of the firm was .501, which was greater than the alpha level of significance of .05. Using a two-tailed test, the critical point of *t* distribution with 31 degrees of freedom at $\alpha = .05$ was 2.021. The rejection region at 95% significance level indicated that the computed *t* test statistic of absolute value of .681 is less than the critical *t* of

2.021, so I cannot reject the null hypothesis that β_{21} is 0. Thus, the size of the firm was statistically not significant and cannot be used to explain and predict Tobin's Q.

In Table 16, I provide a summary of the result of a hierarchical regression conducted to show which of the variables have the most explanatory power. In Model 1, board independence and audit committee independence were forced into the model as the two most powerful corporate governance mechanisms that predict and explain variations in Tobin's Q from the review of the literature. The adjusted R^2 with board independence and audit committee independence as the only two independent variables was -.008 while R^2 was .045. Thus board independence and audit committee independence explained .8% of the variations in Tobin's Q. When board size, the number of board meetings, and executive compensation were added to board independence and audit committee independence in the model, R^2 and adjusted R^2 increased to .092 and -.046 respectively (Model 2). This indicates that board size, the number of board meetings, and executive compensation improved the model and increased its explanatory power by .038.

In Model 3, I added firm age and firm size to the hierarchical model by forced entry. The R^2 increased to .107 and adjusted R^2 increased to -.095. This

indicates that firm age and firm size increased the explanatory power of the model by .049, which was over and above Model 2 by more than 100%.

This indicated that the age and size of the firm moderated the relationship between corporate governance mechanisms and organizational performance measured by Tobin's Q. The result of the multiple regression showed that both R^2 and adjusted R^2 increased with each subsequent addition of independent variables and the adjusted R^2 was maximized in Model 3 at -.095 when board independence (BODIND), audit committee independence (AUDCOMMIND), board size (BODSIZE), number of board meetings (BODMGTS), executive compensation (EXECOMP), age of the firm (FIRMAGE), and the size of the firm (FIRMSIZE) were all added to and retained in the model. The combination of all these variables explains 9.5% of the variations in Tobin's Q. It can be inferred from these results that the combination of board independence and audit committee independence explained .8% of the variation in Tobin's Q, the independent variables of board size, number of board meetings, and executive compensation explained 3.8% of the variation in Tobin's Q, and firm age and firm size explain 4.9% of the variations in Tobin's Q. I conclude that the age and size of the firm mediated the relationship between the five corporate governance mechanisms and Tobin's Q.

Table 16

Model Summary of Hierarchical Regression Results

Model	R	R Square	Adjusted R Square	Std. Error of the Mean
1	.212	.045	-.008	8.63530
2	.303	.092	-.046	8.79448
3	**.326**	**.107**	**-.095**	**8.99992**

Model 1 : Predictors: (Constant), Audit Committee Independence, Board Independence
Model 2: Predictors: (Constant), Audit Committee Independence, Board Independence, Board Size, Board Meetings,
Executive Compensation
Model 3: Predictors: (Constant), Audit Committee Independence, Board Independence, Board Size, Board Meetings,
Executive Compensation, Firm Age, Firm Size

Dependent Variable: Tobin's Q

The parsimonious hierarchical regression model with the highest explanatory power with Tobin's Q as the dependent variable is:

Tobin's Q = -8.538 – 3.699*BODIND + 5.745*AUDCOMMIND - .332*BODSIZE + 1.434*BODMTGS +.039*FIRMAGE + .866*FIRMSIZE + ε

Table 17

Hierarchical Regression Results of Independent Variables vs. Tobin's Q (n=39)

	Intercept	**BOD**	**AUDIT**	**BOD**	**BOD**	**EXEC**	**FIRM**	**FIRM**

		IND	COMMIND	SIZE	MGTS	COMP	AGE	SIZE
b	**-8.538**	**-3.699**	**5.745**	**-.332**	**1.434**	**-.000009859**	**.039**	**.866**
s(b)	.0000	-.069	.187	-.085	.154	-2.30	.118	.149
t	-.157	-.391	1.052	-.379	.891	-.401	.205	.681
p-value	**.876**	**.699**	**.301**	**.708**	**.380**	**.691**	**.839**	**.501**
VIF	**1.079**	**1.096**	**1.729**	**1.034**	**11.418**	**11.504**	**1.668**	

Table 18

ANOVA Table for Hierarchical Regression Results

Source	**Sum of Squares**	**df**	**Mean of Squares**	**F**	**$F_{Critical}$**	***p*-value**
Regression	299.343	7	42.763	.528	2.32	.807
Error	2510.953	31	80.998			
					Adjusted	
Total	2810.296	38	R^2 .107		R^2 -.095	

The results showed that board independence (BODIND) and board size (BODSIZE) have a negative but not significant association with Tobin's Q while audit committee independence (AUDCOMMIND), number of board meetings (BODMTGS). Firm age (FIRMAGE), and firm size (FIRMSIZE) were positively but not significantly related to Tobin's Q. Executive compensation was not related

to Tobin's Q. These findings were not expected. It was expected that board and audit committee independence would be a good predictor of corporate performance and value. Also, the frequency of board meetings should indicate the level of involvement of the directors in both strategy and operations and should improve organizational performance.

Similarly, a large board size would include diversity of opinions and many experts that will positively contribute to the firm's prestige and financial performance. I also expected executive compensation to attract the smartest people to the organization and improve its performance. The age of the firm should signal stability and dependability to investors and I expected this to increase the firm's value, which was not so in this case. The relationship between the size of the firm and Tobin's Q was also not expected. Size ought to give certain financial advantage to the firm, from the ability to buy raw materials in bulk, get lower interest rate from the financial institutions, win concessions from the government, and leverage on locations in countries where labor and raw materials are cheapest. It seems these advantages do not have a great influence on the non-financial companies listed on the NSE.

The weak relationship between organizational financial performance and corporate governance mechanisms as indicated by the adjusted *R*-squares suggested that there are other significant independent variables with

more explanatory power not considered in the present study. Executive compensation has the least explanatory power as the beta coefficient was too small to indicate any relationship between it and organizational performance. Also, executive compensation may be less useful in corporate governance studies although a lot of research attention is devoted to its relationship with organizational financial performance in the literature.

Dealing with Multicollinearity and Other Regression Problems

Multicollinearity

In Table 19, I displayed the correlation matrix of all the predictor variables for the multiple regression models to check for multicollinearity among them. The correlation matrix showed that there may be collinearity problem in the study. The highest pairwise correlation was 95.2% between executive compensation and firm age and the next highest pairwise correlation was 61.3% between firm size and board size. The pairwise correlations among the other variables were less than 25%. For example, the pairwise correlation between board independence and board size was 23.8%, the pairwise correlation between firm age and audit committee independence was 23.1%, and the pairwise correlation between board meetings and board independence was 23.0%. Similarly, the pairwise correlation between executive compensation and firm size was 22%. The pairwise correlation among the remaining independent variables

ranged between .3% and 20%. The correlation matrix indicates the presence of multicollinearity in the model.

Table 19

Correlation Matrix of Corporate Governance Mechanisms

	BOD IND	AUDCO MMIND	BOD SIZE	BOD MTGS	EXEC COMP	FIRM AGE	FIRM SIZE
BODIND	1.00						
AUDCOMMIND	.015	1.00					
BODSIZE	-.238	-.044	1.00				
BODMTGS	-.023	-.089	-.003	1.00			
EXECCOMP	.119	-.177	-.204	.008	1.00		
FIRMAGE	.131	-.231	-.154	.033	.952	1.00	
FIRMSIZE		-.127	.036	.613	.103	-.220	-.182
1.00							

I also considered the Variance Inflation Factors (VIF) values of the regression result to check for the presence of multicollinearity problem in the models. According to Field (2014), if the largest VIF value is greater than 10, there is a cause for concern; and if the average VIF is substantially greater than 1, the regression may be biased. The highest VIF value in the model was 11.504 for firm age and 11.418 for executive compensation. The average VIF for the independent variables was 4.2171, which was substantially greater than 1. Thus the model seems to be biased. Field (2014) also recommended that the offending variables could be removed, one at a time and compared with the main model.

The offending variables in this case are executive compensation and firm age, which had VIF values greater than 10.

Table 20 shows the model summary for ROA and corporate governance when the first two offending variables (executive compensation and firm age) were removed from the model. R^2 was .069 and the adjusted R^2 was -.072. The Model summary when all the variables were present in Table 6 had R^2 and adjusted R^2 of .077 and -.132 respectively. With the two variables removed, there was no improvement in the model. When executive compensation was the only variable removed from the model, R^2 and adjusted R^2 were .077 and -.097 respectively, and removing firm age only, the R^2 and adjusted R^2 were .076 and -.097 respectively. These results were the same. I conclude that removing executive compensation and firm age or both from the model does not increase the combined explanatory power of the independent variables.

Table 20

Model Summary of Regression Results of Independent Variables vs. ROA (n=39) when Executive Compensation and Firm Age were Removed from the Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimation
1	.263	.069	-.072	.11883

Table 21

Model Summary of Regression Results of Independent Variables vs. ROA (n=39) when only Executive Compensation was Removed from the Model

Model		R Estimation	R Square	Std. Error of Adjusted R Square
1	.277	.077	-.097	.12020

Table 22

Model Summary of Regression Results of Independent Variables vs. ROA (n=39) when Firm Age was Removed from the Model

Model		R Estimation	R Square	Std. Error of Adjusted R Square
1	.276	.076	-.097	.12022

To further examine whether removing executive compensation and the age of the firm from the model will improve the predictive power of the model in explaining the variations in ROCE. I performed three regression analyzes. First, I removed both variables from the model and compared it with the main model. Secondly I removed each of the two models one after the other and compared the resulting R^2 and adjusted R^2 with the main analysis.

In Table 23, I removed both the age of the firm (FIRMAGE) and executive compensation (EXECOMP) from the model. The model summary shows that R^2

was .101 and adjusted R^2 was -.035. Compared with the regression results in Table 10 when all the independent variable were included in the model and R^2 and adjusted R^2 were .114 and -.086 respectively, there was no improvement in the model and the power of the independent variables without executive compensation and firm age to explain the variations in ROCE was less.

Table 24 showed the model summary of the regression results when executive compensation (EXECOMP) alone was removed from the model. The R^2 and adjusted R^2 R^2 in the new model were .103 and -.066 respectively and it can be concluded that the power of the new model to predict the variations in ROCE was less than when all the independent variables were included.

Table 25 shows the model summary when only firm age (FIRMAGE) was removed from the model. R^2 and adjusted R^2 were .101 and -.067 respectively in the new model. This model has less power to predict variations in ROCE than the model that included all the independent variables.

Table 23

Model Summary of Regression Results of Independent Variables vs. ROCE (n=39) when Executive Compensation and Firm Age was Removed from the Model

Model		R Estimation	R Square	Std. Error of Adjusted R Square
1	.319	.101	-.035	.32447

Table 24

Model Summary of Regression Results of Independent Variables vs. ROCE (n=39) when Executive Compensation only was Removed from the Model

Model	R	R Square Estimation	R Square	Std. Error of Adjusted R Square
1	.320	.103	-.066	.32931

Table 25

Model Summary of Regression Results of Independent Variables vs. ROCE (n=39) when Firm Age Only was Removed from the Model

Model	R	R Square Estimation	R Square	Std. Error of Adjusted R Square
1	.319	.101	-.067	.32950

With regards to Tobin's Q, I conducted the same multiple regression tests. When executive compensation (EXECOMP) and firm age (FIRMAGE) were removed from the model, the result of the regression in Table 26 shows that R^2 and adjusted R^2 were .093 and -.045 respectively. Compared with the original model with all the variables included where adjusted R^2 was -.086, the model with the firm age removed had less power to predict and explain the variations in Tobin's Q.

By removing executive compensation from the original model that included all the independent variables, the regression result in Table 26 shows that the adjusted R^2 decreased to -.067 from -.086. This result indicated that the

explanatory power of the model without executive compensation was less than the predictive power of the variables when executive compensation was included.

Firm age was also removed from the model to assess whether there will be an improvement in the model's predictive power in relation to Tobin's Q. Table 27 displays the regression result without firm age (FIRMAGE) in the model. The R^2 and adjusted R^2 were .105 and -.062 respectively. Compared with the original model with R^2 of -.086, the model without the firm age included in it had a weaker explanatory power of Tobin's Q.

In addition to the fact that the removal of executive compensation and firm age did not improve the explanatory power of the models, it was observed that when either of the variables was removed, the VIF values for all the other six independent variables became less than absolute value of 2. For example, when executive compensation was removed from the model, the highest VIF values were 1.664, 1.668, and 1.664 when ROA, ROCE, and Tobin's Q were the outcome variables respectively. Also when firm age was removed from the model, the highest VIF values were 1.669, 1.668, and 1.668 respectively for ROA, ROCE, and Tobin's Q as dependent variables. This indicates that executive compensation and firm age were measuring the same things and removal of any of the variables will remove the problem of multicollinerarity.

From the results of the multiple regressions, it was concluded that executive compensation had no relationship with ROA, ROCE, and Tobin's Q. The conclusion is that since executive compensation was not related to organizational performance in non-financial companies listed on the Nigerian Stock Exchange, it should not be added to the model and the problem of multicollinearity will be solved. In none of the three equations for ROA, ROCE, and Tobin's Q computed above was executive compensation one of the explanatory variables as it had no relationship with any of the organizational performance measures. Multicollineraity problem in the models has thus been resolved as executive compensation was not one of the explanatory variables.

Table 26

Model Summary of Regression Results of Independent Variables vs. Tobin's (n=39) when Executive Compensation and Firm Age was Removed from the Model

Model		R Estimation	R Square	Std. Error of Adjusted R Square
1	.304	.093	-.045	8.79021

Table 27

Model Summary of Regression Results of Independent Variables vs. Tobin's (n=39) when Executive Compensation only was Removed from the Model

Model		R Estimation	R Square	Std. Error of Adjusted R Square
1	.319	.102	-.067	8.88111

Table 28

Model Summary of Regression Results of Independent Variables vs. Tobin's (n=39) when Firm Age only was Removed from the Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimation
1	.324	.105	-.067	8.86420

Unusual Cases

I also examined whether unusual cases biased the regression model. I ran three regression models with ROA, ROCE, and Tobin's Q as independent variables, using Cook's distance to examine the effect of an unusual case on the model. For ROA, the minimum Cook's distance was .000, the maximum was .341, and the average was .028. For ROCE, the minimum Cook's distance was .000, the maximum was .343, and the mean was .028. Tobin's Q had a minimum Cook's distance of .000, the maximum was .246, and the average was .028. According to Field (2014), values of Cook's distance

greater than 1 may be cause for concern. None of the values was close to 1. I thus conclude that there was not a single case that exerted undue influence on the model.

Summary of Findings

The summary of the findings of the study in respect of the impact of corporate governance mechanisms on ROA, ROCE, and Tobin's Q are displayed in Tables 29, 30, and 31 respectively.

Table 29

Regression Summary: ROA and Corporate Governance

Regression results	Computed values
F value	.368
F critical	2.320
Significance level	.05
P value	.914
R^2	.077
Adjusted R^2	.132

The relationship between ROA and corporate governance was weak as evidenced by the adjusted R^2 of .132. Because the hierarchical regression results showed a less *f* value of .368 than *f* critical value of 2.320, I cannot reject the null hypothesis that there is no significant statistical association between corporate governance and return on assets (ROA). The *p* value of .914, which was greater than the significance level of .05, confirmed this conclusion. Thus, the relationship between ROA and corporate governance in non-financial companies listed on the NSE was found to be statistically not significant. The relationships found in the study between ROA and corporate governance mechanisms were as follows:

There was a positive but statistically not significant relationship between board independence and ROA.

The relationship between audit committee independence and ROA was found to be positive but not statistically significant.

There was a positive and statistically not significant association between board size and ROA.

A not statistically significant positive relationship was found between the number of board meetings and ROA.

There was no relationship between executive compensation and ROA.

No significant relationship was found to exist between firm age and ROA.

A negative relationship was found to exist between firm size and ROA but the relationship was statistically not significant.

Table 30

Regression Summary: ROCE and Corporate Governance

Regression results	Computed values
F value	.568
F critical	2.320
Significance level	.05
P value	.776
R^2	.114
Adjusted R^2	- .086

The association between ROCE and corporate governance was weak as the adjusted R^2 was -.086. The computed *f* value of the hierarchical regression

was .568, which was less than the *f* critical point of 2.320 and the *p*-value of .776 was greater than the significance level of .05. I cannot reject the null hypothesis that there was no significant statistical relationship between all the corporate governance mechanisms and ROCE. I found the following relationships in the study:

The relationship between board independence and ROCE was found to be positive but not statistically significant.

The association between audit committee independence and ROCE was positive but not statistically significantly.

Board size was found to be negatively related to ROCE but the association was not statistically significant.

The relationship between the number of board meetings and ROCE was found to be positive but not statistically significant.

There was no relationship between executive compensation and ROCE.

There was a positive but not statistically significant relationship between firm age and ROCE.

The relationship between firm size and ROCE was positive but not statistically significant.

Table 31

Regression Summary: Tobin's Q and Corporate Governance

Regression results	Computed values
F value	.528
F critical	2.320
Significance level	.05
P value	.807
R^2	.107
Adjusted R^2	- .095

The .107 value of R^2 indicated a weak relationship between corporate governance and Tobin's Q in non-financial companies quoted on the Nigerian Stock Exchange. The *f* value of .528 was less than *f* critical of 2.320 and the p-value of .807 was greater α, the significance level of .05. The null hypothesis that the beta coefficients of all the independent variables were not significantly different from zero cannot be rejected. I conclude that there was no statistically significant relationship between corporate governance mechanisms and Tobin's Q. I found the following relationships in the study:

The relationship between board independence and Tobin's Q was found to be negative but not significant.

The association between audit committee independence was positive but not statistically significant.

The relationship between board size and Tobin's Q was found negative but not statistically significant.

There was a positive relationship between the number of board meetings and Tobin's Q but the association was not statistically significant.

No relationship was found to exist between executive compensation and Tobin's Q.

The association between firm age and Tobin's Q was found to be positive but not statistically significant.

The size of the firm was found to be positively associated with Tobin's Q but the relationship was not statistically significant.

The results of the study showed that corporate governance mechanisms have an impact on ROA, ROCE, and Tobin's, but none of the relationships was found statistically significant. The reasons for the unexpected results, as explained above, may be because corporate governance codes in Nigeria prescribe strict rules for companies to follow and most corporations follow the letter of the rules superficially, without realizing that a strict adherence to the rules brings tremendous benefits and improvement to corporate performance. I hope this study will go a long way to convince managers of the need to overhaul their firms' corporate governance practice. Another reason may be that there are many imperfections in the pricing of the stocks on the stock

exchange and the share price may not reflect the business and economic fundamentals in the firms and the macro-economic environment in the country. This will affect the relationship between organizational performance and Tobin's Q.

I have presented the results of the research findings in this chapter. The summary of the findings was that corporate governance mechanisms such as board independence, independence of the audit committee, board size, and the frequency of board meetings were found to be associated with firm performance, but the relationship was not statistically significant, Executive compensation was found to be unrelated to organizational performance using all the three measures of performance in this study, i.e. ROA, ROCE, and Tobin's Q. Firm age and firm size were found to be mediators in the relationship between corporate governance mechanisms and organizational performance.

In the next and final chapter of the study, I summarized the conclusion of the research findings and offered recommendations to corporate managers and regulators alike. Also, I mentioned some of the limitations of the study, which included challenges arising from the use of secondary data and modeling problems. The chapter also included recommendations for further research and potential contribution to positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The theory of agency holds that the separation of ownership from control in large, public corporations causes agency problems where managers are more likely to pursue self-interest more than the long-term interest of the stockholders (Appuchami & Bhuyan, 2015; Liu et al., 2016). Agency theory predicts a conflict of interest between the managers and shareholders, which is a result of their different interests (Berle & Means, 1932). A conflict of interest between managers and shareholders prevents the stockholders from maximizing their wealth as managers use their knowledge in the firm to appropriate value to themselves (Palmrose, 2013). A number of corporate scandals and financial distress in recent times seem to confirm the theory of agency. Researchers have proposed that the best tool against shareholder-manager conflict of interest, immoral corporate management behavior, irresponsible risk-taking, and financial underperformance is a good system of corporate governance practices (Conyon & He, 2013).

The agency theory focuses its attention on the wealth maximization objective of the shareholder as the main and primary objective that the corporation ought to pursue (El-Faitouri, 2014). In contrast to the agency theory, the stakeholders' theory posits that the firm should pursue an objective

that takes account of the interests of all the stakeholders in the firm (Miletkov et al.,2014). The stakeholders are numerous, but the key ones that the organization should take into consideration in formulating strategies and policies include employees, suppliers, customers, finance providers, the host community, the government, and members of the general public (Haβ et al., 2016). By considering and maximizing the interests of all stakeholders, the stakeholder's theory argues that conflicts of interest between managers and shareholders and its adverse consequences, like immoral corporate management behavior and financial underperformance, will be reduced if not completely eliminated (Arenas & Rodrigo, 2016).

The stewardship theory is an antithesis of the agency theory. While the agency theory assumes that managers are motivated to pursue self-interest, the stewardship theory sees managers as essentially responsible and motivated to pursue the shareholders' interest of profit maximization (Hiebl, 2013). When managers focus on establishing good relationships within the organization, they foster collaboration among corporate actors (Dah, 2016). The stewardship theory predicts that pro-organizational trustworthy behavior in managers allows them to act in the long-term interest of the stockholders instead of the short-term self-interest behavior the agency theory assumes (Fama, 1980).

In this study I examined the impact of corporate governance on organizational financial performance. I compared and contrasted three theories of corporate governance and explored corporate governance practices in nonfinancial firms listed on the NSE. The corporate governance structure in Nigeria is based on the Nigeria's SEC code of corporate governance adopted in 2003 (SEC, 2003). The code requires separation of the chairperson's position from that of the CEO, an independent board, an independent audit committee, a minimum number of directors on the board, the presence of other committees of the board, disclosure of executive compensation, and the minimum number of board meetings in a year (SEC, 2003). The adoption of these corporate governance mechanisms could help monitor managers' activities in the firm and align their interests to those of the stockholders, promote disciple in the organization, and enhance organizational performance.

I adopted a two-stage sampling process to select 39 nonfinancial companies listed on the NSE between 2011 and 2015 for the study. In the first process, I separated financial companies from nonfinancial companies. Out of the 171 companies listed on the exchange as at December 31, 2015, 116 were nonfinancial companies and the remaining 54 firms were in the financial services industry. In the second stage of the two-stage sampling process, I used convenience sampling strategy to select the 39 firms based on certain criteria,

including a minimum of $1 million market value, minimum of at least four directors, no financial losses in all the 5 years under consideration, a minimum of 3 years trading history prior to 2011, and availability of financial statements that provided information on corporate governance mechanisms and financial performance. The 39 companies comprised firms in different sectors of the economy: agriculture, conglomerates, construction/real estate, consumer goods, healthcare, information and communications technology, industrial goods, natural resources, oil and gas, and services. I constructed a series of indices and ratios on a Microsoft Excel spreadsheet to measure corporate governance mechanisms because there is yet to be a generally accepted corporate governance models.

I used the equal-waiting approach of assigning scores to the corporate governance variables following Bebchuck et al. (2003), Brown and Caylor (2004), and Gompers et al. (2003). For example, I assigned four points to a company having four directors and five points for five directors. Similarly, four points were assigned to a firm that had four meetings in a year and five points if the company had five meetings. I measured board independence using a 5-point Likert scale where 1 denoted minimum board independence and 5 indicated maximum board independence. Also, audit committee independence was measured using a 5-point Likert scale of 1 to 5, where 1 indicated minimum independence and 5 denoted maximum independence. The size of the board was

also measured by assigning one point to each member of the board of directors in a firm. The number of board meetings was similarly measured by assigning one point to each meeting the firm had in a year. Executive compensation was measured by the dollar amount the highest paid executive received in the firm. The age of the firm was measured as the number of years since incorporation, and the size of the company was measured by the natural logarithm of total assets.

Financial performance was measured by three ratios. The first was the ROA, which is the ratio of EBITDA and total assets. The second measure of financial performance was ROCE, which is the ratio of EBITDA and capital employed; capital employed is the total sum of equity and long-term debt. The third measure of financial performance was Tobin's Q. Tobin's Q is the ratio of the firm's market value to the cost of replacement of its assets.

The results of the study showed that the relationship between ROA and board independence, audit committee independence, board size, number of board meetings, and firm age was positive but not statistically significant. There was no relationship between ROA and executive compensation. As concerning the relationship between ROA and firm size, the study indicated that the association between firm size and ROA was negative but not significant.

Concerning the relationship between corporate governance mechanisms and ROCE, the results of the study showed there was no significant

relationship between executive compensation and ROCE. The result also showed that there was a positive but not statistically significant relationship between board independence, audit committee independence, and the number of board meetings and ROCE. The relationship between firm age and firm size was also positive but statistically not significant.

Board independence and board size were negatively related to Tobin's Q, but the association was not statistically significant. The relationship between audit committee independence, the number of board meetings, firm age, and firm size and Tobin's Q were positive but not statistically significant. There was no relationship between executive compensation and Tobin's Q.

Interpretation of Findings

The purpose of this study was to find answers to the eight RQs I developed. The RQs were as follows:

RQ1: Is there a statistically significant association between corporate governance and financial performance of publicly quoted companies in Nigeria?

RQ2: Is there a statistically significant association between board independence and financial performance of publicly quoted companies in Nigeria?

RQ3: Is there a statistically significant association between audit committee independence and financial performance of publicly quoted companies in Nigeria?

RQ4: Is there a statistically significant association between executive compensation and financial performance of publicly quoted companies in Nigeria?

RQ5: Is there a statistically significant association between the number of board meetings and financial performance of publicly quoted companies in Nigeria?

RQ6: Is there a statistically significant association between board size and financial performance of publicly quoted companies in Nigeria?

RQ7: Does the size of the firm mediate the relationship between corporate governance and financial performance of publicly quoted companies in Nigeria?

RQ8: Does the age of the firm mediate the relationship between corporate governance and financial performance of publicly quoted companies in Nigeria?

To test these relationships, I used a theoretical framework based on agency, stakeholder, and stewardship theories to link the five mechanisms of corporate governance with the three measures of financial performance: ROA, ROCE, and Tobin's Q. I performed several global *f* tests to establish a linear relationship between the financial performance dependent variables and corporate governance mechanisms independent variables. I also performed individual *t* tests to examine the relationship between individual corporate governance mechanisms and financial performance metrics. To test for the presence of multicollinearity problem in the model, I used correlation matrix of the individual variables and VIF values. The

results of the tests showed that multicollinearity was present in the model, caused by either firm age or executive compensation. When any of the two independent variables was removed; however, multicollinearity problem disappeared. When executive compensation was removed from all the equations, since it had no relationship with any of the three measures of organizational financial performance, the multicollinearity problem in the regression model was resolved. In the next section, I explained the research findings of the study.

Corporate Governance and Organizational Performance

RQ1 asked whether there was a statistically significant association between corporate governance and organizational performance. The statistical results in Chapter 4 indicated there was a relationship between corporate governance mechanisms and organizational performance, measured by ROA, ROCE, and Tobin's Q. The f test, and p values, R^2, and adjusted R^2 tabulated in Table 10 provided some support of a relationship, but not all the associations were positive and none was statistically significant. Board independence was measured by the proportion of directors that was nonexecutive and whether there was the presence of CEO duality in the firm. The BRT's principles of corporate governance, the SOX, and findings from my review of the literature suggested that an independent board and absence of CEO duality ensure a good corporate governance practice and strong organizational performance. The assumption is that better economic

and financial decisions are made in a firm with an independent board, which leads to improved financial performance (Al-Matar et al.,2014).

Of all the corporate governance mechanisms, only firm size was negatively related to ROA. Executive compensation and firm age had no association with ROA and all the others, although positively associated with the outcome variable, were statistically not significant. Board independence, audit committee independence, board size, and the number of board meetings were positively related to ROA but the relationship was not statistically significant. Board independence, audit committee independence, number of board meetings, firm age, and firm size had a positive but not statistically significant relationship with ROCE while the relationship between board size and ROCE was negative but not statistically significant. Executive compensation was not associated with ROCE. The relationship between Tobin's Q and corporate governance mechanisms was negative but statistically not significant. Board independence and board size were negatively related to Tobin's Q but the association was statistically not significant. The relationship between audit committee independence, number of board meetings, firm age, and firm size and Tobin's Q was positive but statistically not significant. There was no relationship between executive compensation and Tobin's Q.

Corporate Governance and Return on Assets (ROA)

RQ 2 was whether there was a statistically significant relationship between board independence and organizational performance, measured by ROA. The impact of board independence on organizational performance in the literature was mixed. For example, Wu and Li (2014) found board independence reduces fraud in Chinese companies. On the other hand, Benjamin and Zain (2015) found the relationship between board independence and dividend payout negative and statistically significant. Greater board independence and absence of CEO duality will guarantee a much more fruitful discussion on the board and an objective assessment of CEO performance. But when CEO duality is present and there is no lead director to serve as a bulwark on the power of the CEO, the tendency of the CEO to seek self-interest is greater. According to the agency theory, the pursuit of managers' self-interest leads to organizational underperformance.

Thus, a positive relationship between board independence and ROA was expected; what was not expected was a statistically not significant association. One possible explanation is that in Nigeria, the Nigerian SEC code of corporate governance prescribes that no company should have CEO duality and the majority of the members of the board of directors must be composed of nonexecutive and independent directors. Inevitably, all companies have nonexecutive chair and the majority of the board is composed, seemingly, of independent directors. This

uniformity may have contributed to the result. Another reason may be that most of those directors identified as independent may not be without some remote ties with the company in actual practice. The directors may just be putting their cronies on the board just to satisfy the requirements of SEC's code of corporate governance.

RQ 3 was: Is there a statistically significant relationship between audit committee independence and organizational performance measured by ROA? The SOX made independence audit committee mandatory, following the financial collapse of Enron, Inc. together with its external auditors, Arthur Andersen. The close relationship between the directors of Enron and the partners of Arthur Andersen and due the significant amount of other services rendered to the company by the auditor was blamed for the unhealthy cooperation between auditor and client. To prevent a situation where an auditor is less than objective because of the relationship with his or her client's directors, an audit committee is required to be composed of independent directors with knowledge of finance and accounting. SOX also set up the PCAOB to supervise and discipline errant auditors. In the present study, the association between audit committee independence and ROA was positive but not statistically significance. I expected a statistically significant association because the independence of the members engenders objective and professional atmosphere in the firm's accounting and control systems. One

possible explanation for the not significant relationship is likely to be that directors put their cronies on the committee to satisfy Nigerian SEC's codes, who have the appearance of independent persons, but who are in fact stooges of the executive directors. Another reason is that the code was not specific as to the qualifications of members of the audit committee. The requirement should be that at least the chairman and another member should have expertise in accounting or finance.

The audit committee offers advisory and support services to the management and the board. The committee looks at the audit report, calls for clarifications of certain figures and balances, and also examines the work of the chief internal auditor to offer ensure the financial and operational controls are strong and working properly. A system where a strong and independent committee is in operation, composed by experienced and knowledgeable individuals with integrity, ought to improve financial and risk management controls and organizational performance. Although the relationship between audit committee and organizational performance is yet to be exhaustively dealt with in the literature, Hassan and Ahmed (2014) found a positive and significant relationship between audit committee and ROA. In the present study, the association between audit committee independence and ROA was found positive but not statistically significant. In Nigeria, the CAMA requires that all public have at least six

members of the audit committee, three members are to be composed of the members of the executive directors and three members from shareholders' representatives. What all companies do is to strictly abide by this provision, which is less than ideal as corporate governance principles require all members of the audit committee to be, ideally, independent. Of all the 39 companies that were sampled, only one had an audit committee structure that is more independent. The uniformity with which the law's provision is being applied may also have accounted for the statistically not significant association between audit committee independence and ROA.

RQ 4 was whether there is a significant association between board size and organizational performance measured by ROA. There is disagreement in the literature whether the size of the board is good or bad for company performance. Cao, Leung, Feroz, and Davalos (2015) and Adewuyi and Olowookere (2013) reported a positive and significant relationship between smaller board and corporate performance. On the other hand, Xie and Fukumoto (2013) and Kouki and Gani (2015) found that the bigger the board the better is organizational performance. Board size can be a source of competitive advantage especially if the board is diverse in terms of the competencies of the members, their connections in the industry, and the synergy of their skills-set. But bigger boards could also cause rivalry among members and bureaucracy that lead to poor

organizational performance. I expected board size to be significantly association with ROA. The result of the study showed that although board size was positive, it was not significantly related to ROA. The CAMA stipulated a minimum of two board members and the SEC code of corporate governance made provision for a minimum of four members. The result of the study may be because many boards in Nigeria are composed of friends and family members and appointment to the board are seen by many as a big favor to reward loyalty; merit is rarely considered in many cases.

For RQ 5 was whether there is a significant association between organizational performance, measured by ROA, and the number of board meetings. According to Alves, Couto, and Francisco (2016) and Jermias and Gani (2014) the board meetings is where board power is exercised. The frequency of meetings also indicates board involvement in the organization's affairs and ought to positively impact organizational financial performance (Mishra & Mihanty, 2013). The frequency of board meetings have been found by some researchers to be negatively and significantly related to firm performance. In this research study, the number of meetings was positive but not significantly related to financial performance.

RQ 6 was whether executive compensation has a significant association with organizational performance measured by ROA. Although the result showed that

there was no relationship as the beta coefficient of executive compensation was closer to zero, some researchers have found that the higher the executive pay, the higher the book value of assets and the lower the ROA (Alves et al., 2016). The result of the present study was surprising as I had expected executive pay to be a great motivator to employees to do more for the organization and increase its profitability and value. One reason for the lack of relationship between ROA and executive compensation may be because organizations in Nigeria rarely disclose the true executive compensation on the face of financial statements and there are as yet no oversight regulators that enforce the disclosure. Again, the practice of giving benefits-in-kind to executives instead of cash is common in Nigeria and monitoring and monetizing these benefits may be near impossible.

RQ 7 asked whether the relationship between firm age and organizational performance, measured by ROA is statistically significant. The age of the firm, measured by the number of years since incorporation, could be an asset or liability. Age is a proxy for experience and may guide a company from making costly strategic error. On the other hand, old companies tend to be complacent, the last to discover that their customers' taste and lifestyles have changed for them to adapt their products and services accordingly, and the last to change their business model in an age where mobility is everything. I expected a significant relationship between the age of the firm and organizational performance. The surprising thing here is that there was

no relationship at all. The result may be because many of the sampled companies were very old. The mean age was 45 years and the maximum exceeded 100 years. Only one company is in information technology and one also in natural resources, the business sector of now and the future. All these points considered, companies in Nigeria are very old and new ventures are not being set up, not in the sectors and size that matter. This may be why age does not have any association with ROA.

In RQ 8, I asked whether the size of the firm and organizational performance, measured by ROA, was statistically significant. Size confers many advantages on the firm: Much better ability to negotiate contracts than smaller firms, better able to withstand economic shocks, and ability to buy in bulk to gain substantial discounts. All things considered, the size of the firm should be positively and significantly related to organizational performance. The result of this study showed that the relationship between the size of the firm, measured by natural logarithm of total assets, and ROA was negative and not significant. This is surprising. Again, the result may be because most firms get by in Nigeria through crony capitalism, not because of efficiency, innovation, merit, or superior management skill.

Corporate Governance and Return on Capital Employed (ROCE)

RQ 1examined the relationship between corporate governance and organizational performance, measured by ROCE. The findings in Table 13 showed that there was some relationship between corporate governance and ROCE. Board independence (BODIND), audit committee independence (AUDCOMMIND), number of board meetings (BODMTGS), firm age (FIRMAGE), and firm size (FIRMSIZE) were all positively related to ROCE. The relationship is weak giving that the adjusted R^2 was

-.086. There was no relationship between executive compensation and ROCE because the beta coefficient is very close to zero. Board size was negatively associated with ROCE.

RQ 2 the relationship between board independence and ROCE, whether there was a statistically significant relationship between the two variables. Board independence was measured by the proportion of independent directors to the number of directors and whether there was separation between the chair and the CEO. ROCE was measured by the ratio of EBITDA and capital employed. Capital employed is the total sum of equity and long-term debt. There was some evidence in the literature that ROCE is positively and significantly associated with board independence (Kouki & Gani, 2015; Sun et al. 2014). I expected a positive and significant relationship between board independence and

ROCE, but the result showed that the relationship was not statistically significant; the association between board independence and ROCE was found positive but not significant. The beta coefficient of .188 showed that board independence could explain 19% of the variations in ROCE.

The RQ 3 was whether the relationship between audit committee independence and organizational performance, measured by ROCE, was statistically significant. Audit committee independence was measured by the proportion of independent members on the committee to the total number of members and whether the members can communicate directly with the chief internal auditor. Generally, the committee has access to the internal auditors who may be asked to appear to explain certain issues as the case may be. Whether the committee's chair and other members know what questions to ask and whether they are equipped to understand the answers is a different matter, which depends on the competence of the committee. I expected a positive and significant relationship between audit committee independence and ROCE. Audit committee monitors the work of the external and internal auditors and if it does its work well, management's tendency to misstate accounting information or give out false reports will be minimized, and financial statements will be more accurate and firm value enhanced. The result was unexpected as the relationship between audit committee independence and ROCE was positive but not significant. The reason,

as stated when the relationship between ROA and audit committee independence was examined may be because company legislation in Nigeria assigns equal numbers of members to the committee comprising representatives of the shareholders and the company. Most companies follow this practice which does not give the committee real independence as defined in the BRT principles of corporate governance.

The RQ 4 in relation to ROCE was whether there was a significant relationship between board size and organizational performance, measured by ROCE. The size of the board is the absolute number of the members on the board. A large board will have room for diversity, a complement of skills, and other board directorships that may benefit the firm. Thus I expected board size to be positive and significantly related to ROCE. The result was unexpected. The relationship between board size and ROCE was negative and not statistically significant. The result may be because appointments to the boards of corporations in Nigeria are not without the old practice of using family connections where merit and skill take a second place. The complementary skills-set that should help a firm achieve superior performance may be absence even in a large board in corporations in Nigeria.

RQ 5 was in relation to the association between the number of board meetings and organizational performance measured by ROCE and whether

a statistical and significant relationship existed between the two variables. The board exercises board and corporate power at the board meetings where important and far reaching decisions that affect the present and future performance of the firm are taken. The number of board meetings has been found in the literature to be negative and significantly associated with dividend payout policy (Benjamin & Zain, 2015). Dividend payout policy is a proxy for performance as dividend relates to profitability. In the present study, the relationship between the number of board meetings and ROCE was positive but not significant. The positive relationship is also weak, with beta coefficient of 0.033. The reason for this unexpected result may be because, as stated above, board appointments in Nigeria are not based on merit, and knowledgeable and objective discussion of strategy and policy in meetings may be generally absent at the meetings, and could be more of re-echoing the position of a powerful chairperson. This may be more so if the directors have been hand-picked by the CEO or a powerful chair.

As regards RQ 6 whether the relationship between executive compensation and corporate governance is statistically significant, the result indicated that there was no relationship between ROCE and executive compensation. The beta coefficient is nearly zero, at .0000005671. The result was unexpected. Executive compensation was measured by the dollar amount paid to the highest paid executive as disclosed in the financial statements. Some research

findings have found positive and significant association between executive pay and corporate performance (Basory, Gleason, & Kannan, 2014). Other research findings showed a negative relationship between executive compensation and corporate performance (Alves et al., 2016). Although the research findings are not conclusive, I expected a positive and significant relationship between executive compensation and ROCE. Higher pay signals to the executives that hard work and innovation are recognized in the firm and it also serves as an attraction to qualified professionals to seek employment in the company. The result was unexpected; the negative relationship between executive compensation and ROCE was extremely weak as the beta coefficient was virtually zero. I conclude that there was no relationship between executive compensation and ROCE. The reason for this result may be because firms in Nigeria may not be disclosing all the executives' emoluments, and what is not disclosed is different from one firm to the other. Another reason may be that the compensation to executives is far and above the value they give to the companies, in other words, the executives are seriously overpaid.

RQ 7 in relation to organizational performance measured by ROCE is whether the age of the firm mediated or explained the relationship between corporate governance and financial performance. A mediating variable affects the relationship between the independent and dependent variables. In the

main model, R^2 was .114 and adjusted R^2 was -.086. When firm age was removed from the model, R^2 reduced to .101 and adjusted R^2 became -.067. The difference in the adjusted R^2 was 22.09%. From this result, I conclude that the age of the firm mediated the relationship between corporate governance and ROCE. The age of the firm can be an impediment to growth and profitability due to reluctance to change with changes in the business landscape and lack of motivation to stick to the tried and tested way of doing things.

As to RQ 8 whether the size of the firm mediated the relationship between corporate governance and ROCE, the adjusted R^2 computed without the size of the firm in the main model was -.082 and the adjusted R^2 with all the variables included was -.086. Firm age caused the R^2 to change by .004 or 4.65%, which seems to suggest that the size of the firm does not affect or mediate the relationship between corporate governance and ROCE. Although I started by assuming that size mattered in corporate governance, the power of the size of the firm to explain the relationship between corporate governance and firm performance measured by ROCE was limited.

Corporate Governance and Tobin's Q

In relation to RQ 2 and Tobin's Q, the question was whether the relationship between board independence and financial performance, measured by Tobin's Q, was statistically significant. The statistical results in Chapter 4

indicated that there was some relationship between corporate governance mechanisms and organizational performance, measured by Tobin's Q. In Table 14, the relationship between board independence and Tobin's Q was negative but not statistically significant. Tobin's Q measures the market value of the firm and board independence is valued by investors and financial analysts and should enhance the value of the firm. The result was not expected as research in the literature seemed to suggest that board effectiveness leads to enhanced market value (Baulkaran, 2014; Bhagat & Bolton, 2013; Mishra & Mohanty, 2013). The reason may be the many imperfections in the pricing of equities in the market. For example, insider trading in firms' stocks is rarely detected and punished, and it is not unknown for companies to buy their own shares through covert purchases contracts with brokers to increase their share price, especially prior to a rights issue or public offering.

RQ 3 was whether the relationship between audit independence and company financial performance, measured by Tobin's Q, was statistically significant. The statistical regression results showed that audit committee independence was positively associated with Tobin's Q, but the relationship was statistically not significant, as the *p* value of .301 was greater than the .05 level of significance. Like board independence, audit committee independence should signal to the investment community the accuracy of financial information in the

company's accounts. The reliance on the report of the audit committee by the investment community should enhance the firm's share price and market value. The result was not expected. Like appointment to the board, members of the committee are rarely selected on merit and appropriate qualifications. Also the requirement of law in the country that half of the members of the committee should be composed of executive directors is a serious cause for concern and may have caused the near irrelevancy of audit committee work in Nigeria.

RQ 4 was whether the relationship between board size and corporate performance, measured by Tobin's Q was statistically significant. The board of directors is the organ of the firm. The quality and size of the board matter because the board represents the shareholders and its members' vision, competence, and the quality of its decisions affect the company's financial fortunes. While there is no single metric to determine the appropriate board size as it depends on the organizational context, the complexity of the company's operations, the number of subsidiaries, and the need for proper coordination and control (Lucas-Perez et al., 2014; Knockeart et al., 2015).. Although, board size may not be sensitive to the benefits and costs of monitoring and advising the management of the firm, I expected a large board size (beyond the minimum of two directors prescribed by law) to positively and significantly affect firm value, measured by Tobin's Q. The result indicated that the relationship was not statistically significant. As mentioned

above, the reason may be the way board appointments are made in Nigeria: More through family connections and friendship networks, and less by merit, skills, and verifiable and cognate experience (Adewuyi & Olowookere, 2013).

RQ 5 in relation to Tobin's Q was whether the relationship between organizational performance, measured by Tobin's Q, and the number of board meetings was statistically significant. Board meetings take place in the boardroom. The board room is where corporate power is exercised. Issues affecting the firm's business, strategy, competition, research and development, risk management, foreign subsidiary, mergers and acquisitions, divestment, personnel issues, and other matters are discussed during board meetings. The frequency of board meetings is therefore crucial to the growth and progress of the firm (Benjamin & Zain, 2015). I expected a positive and statistically significant association between Tobin's Q and the number of board meetings. Even though the relationship between the frequency of meetings and Tobin's Q was positive, it was not statistically significant as the *p* value of .380 exceeded the alpha criterion of .05. The reason may be that most meetings do not address the critical issues affecting the business of the corporation as the recruitment of directors to the board was faulty from the onset. In this situation, the powerful CEO sets the agenda and directs the procedures at the meetings. The chair and other members

merely commend the CEO for a job well done without any attempt at a critical and objective appraisal of the CEO's and other executives' presentations.

RQ 6 concerned the association between corporate governance, measured by executive compensation, and organizational performance, measured by Tobin's Q was statistically significant. The result of the regression showed that there was no relationship between executive compensation and Tobin's Q, as the beta coefficient was virtually zero. The result was not what I expected. The information effect of executive compensation can be a very powerful motivator of employee loyalty, commitment, and dedication (Basory et al., 2014). The result could also be that not all emoluments are disclosed in the financial statements. It could also be that executive compensation does not serve as a motivator, either because they are too low or badly packaged. For example, stock options and pay-for-performance are rarely part of executive compensation in Nigeria. Nigerian companies may have been overpaying its managers because rarely is executives' pay linked to company performance.

RQ 7 asked whether firm age mediated the relationship between corporate governance mechanisms and organizational performance, measured by Tobin's Q. The result of the regression showed that the adjusted R^2 was -.046 when none of the two mediating variables was in the regression model. Including the age of the firm in the model improved the model as the adjusted R^2 became -

.077. Before the mediating variable, firm age, was added into the model, the independent variables were able to explain 4.6% of the variations in Tobin's Q, by adding firm age, the independent variables were able to explain 7.7% of the variations in Tobin's Q. I conclude that the age of the firm mediates the relationship between Tobin's Q and board independence, audit committee independence, number of board meetings, and board size.

RQ 8 asked whether the size of the firm mediated the relationship between corporate governance and organizational performance, measured by Tobin's Q. The size of the firm was measured by the natural logarithm of total assets. The size of the firm should confer some positive advantages on the company and enhance its market value, measured by Tobin's Q. The power to negotiate a contract, lobby the government for favorable treatment, get cheap finance from the financial institutions, and trade credit from suppliers more often than not is a function of corporate size. The size of the firm, all things equal, should enhance its market value, measured by Tobin's Q. The result of the regression showed that when the regression model contained only the corporate governance variables, the adjusted R^2 was -.046. When the size of the firm was added to the model as the only mediating variable, the adjusted R^2 increased to -.097. The addition of firm size to the model increased the explanatory power of

the independent variables by more than 100%. The conclusion is that size is a mediator between corporate governance mechanisms and Tobin's Q.

Recommendations

The UNDP and the BRT principles of corporate governance advocated an independent board, independent audit committee, and a nonexecutive chair for the board of directors of publicly listed companies. The United Kingdom's Cadbury Committee on the financial aspects of corporate governance (The Cadbury Committee) recommended the presence of a lead director when the chair of the board is also the CEO of the firm. Some researchers in corporate governance have stated that an independent board, smaller board sizes, a non-executive chair, adequate compensation to executives, and more frequent board meetings were the means to ensure efficiency in business organizations and to minimize conflict of interests in large public corporations.

The regulators in many countries have also recommended an independent board, independent audit and other committees, and regular attendance at board meetings as a way to increase the directors' involvement in public companies and eliminate self-interests of executives to enhance organizational performance and shareholders' wealth. Many of these recommendations are in line with corporate governance principles advocated by the UNDP, the Cadbury Committee, and the BRT. The research findings of this

study have shown evidence that was contrary to these principles and codes of corporate governance practice.

The results of this study indicated that executive compensation and age of the firm have little direct relationship with ROA in nonfinancial companies listed on the NSE. Board independence, audit committee independence, board size, and the number of board meetings have a direct positive association with ROA in the sampled companies but the relationship was found to be statistically not significant.

Executive compensation serves to motivate employees to be loyal and dedicated to the objectives of the organization, and also to aspire to positions of authority and therefore stay with the firm for a long time. The results of the study showed that the disclosure of executive compensation in the financial statements was not uniform. While some companies disclosed only basic salaries, others disclosed allowances, benefits-in-kind, and other compensation. Apart from the loss of information effect of the disclosure that serves to motivate staff and encourage outsiders in dealing with the firm, comparability among companies was difficult. The result of the study also showed that executive compensation was not related to return on capital employed. The negative beta coefficient was almost zero. Executive compensation also had no relationship with Tobin's Q.

I recommend that the financial statements should contain a full disclosure of executive compensation, including the monetary value of car and driver, company housing provided to the executive, paid annual leave, education allowance for the executive's children, wardrobe and furniture allowance, security allowance, paid utility bills, and employer's portion of contributory pension. Additionally, a sort of pay-for-performance should become a standard part of the whole package of executive compensation. In Nigeria, executive pay is rarely linked to corporate performance and the notion of stock options is foreign to Nigerian executives. If executive compensation is to have a significant impact on organizational performance, part of the compensation should be linked to the firms' performance.

The age of the firm is a proxy for experience. Experience gives the advantage of avoiding costly mistakes and strategic error. The result of the study showed that age had no relationship at all with organizational performance, measured by ROA. As regards ROCE, the relationship between age and corporate governance mechanism was weak. However, the relationship between age and Tobin's Q, a measure of market value was the strongest. This means that investors value older companies more as they believe the firms provide more stability, experience, and dependability. I recommend that companies emphasize their age

and experience in their marketing and other corporate communication as this will positively impact the company's business and share price.

Board independence is seen as the most important components of corporate governance practices that could ensure reduction in the directors' self-interest and prevent weak organizational performance by the SOX and the principles of corporate governance in the Cadbury Committee, the UNDP, and the BRT. Independence of the board makes possible a corporate environment where merit and objectivity are valued. Independence of the majority of the board members will also ensure that business dealings with the firms are free of insider abuse, financial manipulation, and false reporting. The result of the study indicated that board independence was positive but not statistically significant in relation to ROA and ROCE. Board independent, on the other hand, was negatively related to Tobin's Q, which is a measure of the firm's market value. Both ROA and ROCE measured a firm's profitability. It appears that in non-financial firms in Nigeria, boards of directors are not perceived as truly independent. This is because the process of recruitment of members to the board may be faulty, as many of the positions are given to family members and old friends.

The negative relationship between the Tobin's Q and board independence may be because the market and the investing public see members as

mercenaries; being on the board to further their self-interest without adding value to the firm. My recommendations are that the recruitment of members to the board of directors should be open and transparent. The process should be free of bias and the selected candidates should be respected members of the society with required qualifications and skills-set that is appropriate and can add value to the company. Additionally, the current practice of appointing a former CEO as chair and auditor as one of the directors should be discouraged to allow for a cooling period of at least 10 years before making those appointments. Directors should also be appointment after thorough investigation of both their professional and business life to ensure only men and women of integrity are appointed to the board.

Audit committee independence is crucial if financial statements are to be true and fair and free of errors and manipulations. An independent committee will be able to ensure that the external auditors are professional and objective in their work and that internal auditors display diligence, integrity, objectivity, and an independent attitude to their work. The SOX and many corporate governance codes emphasize the importance of an independent audit committee as the bulwark against corporate financial abuse. The result showed a positive relationship between the independence of audit committee and ROCE, but the association was not significant. It is worrisome that the CAMA prescribed

six members of the audit committee, three executive directors and three representatives of the shareholders. All companies followed this minimum standard, which is less than the principles recommended. I recommend that the structure of the audit committee should be changed. All members of the audit committee should be independent for an objective appraisal of a firm's accounting policies, audit process, auditor's assessment, and assessment of the quality of financial information.

From the results, I discovered that many members selected for the audit committee assignment were not qualified for the job. Many do not have accounting, finance, and audit qualifications; neither do the majority of the members have industry experience. What became plainly obvious was that the recruitment to the committee follows a similar process like recruitment to the board of directors. I recommend further that only those with requisite qualifications should be recruited to the audit committee and the committee should be composed entirely of independent members.

Many researchers hold the view that the smaller the size of the board, the more the profitability and financial performance. Yet, a prescription of the number of directors on a board is conceptually and practically difficult and may bring about inefficiency and weak organizational financial performance. What ought to be emphasized are the qualities and integrity of the members of the

board, their experience, skills-set, and industry connections. A large board size has the potential of containing several men and women with different skills and industry experience. It is also possible for a large board to have diversity, which researchers have linked to superior organizational performance. The result of the research indicated that the relationship between board size and organizational financial performance, measured by ROA, was positive but the association was weak and not statistically significant. But board size was negatively related to ROCE and Tobin's Q.

Although, as stated above, a large board size can be an advantage by introducing diversity and experience to the firm, it could also be a liability. A large board size may increase rivalry and unhealthy competitiveness among the directors. It may also increase red tape and bureaucracy. The optimum board size should depend on the complexity of the organization and the need to have different skills and experiences at the disposal of the firm. I recommend that, in defining the optimum number of directors on the board, it must be ensured that enough members are recruited to carry on the business of the firm and ensure that the members can introduce diversity and be enough to form the various committees that are essential to the business of the company.

The result of this study for the number of board meetings indicated that the relationship between the frequency meetings and ROA was positive but

not significant. The relationship between the number of board meetings and ROCE and Tobin's Q was negative but not significant. Board meetings are where major decisions concerning the present and future performance of the firm take place. The board meetings are also where corporate power is exercised. The frequency and quality of the meetings, all things being equal, should have a positive impact on organizational performance.

The reason for the negative relationship between the number of board meetings and ROCE and Tobin's Q in this study may be because in many meetings, the discussions may be far from being objective, but many may be just to rubber-stamp a powerful CEO's propositions. Investors may not believe in the quality of decisions in the boardroom if the directors are seen as weak and unqualified. I recommend that the board of directors should set up meetings where the agenda is known prior to the meetings, to seek advice from subject experts on a technical matter before the meeting, and to ensure that members receive early notification of the meetings. The board should also send all papers and issues to be considered in advance to all members and encourage them to attend all meetings and make objective contributions to the debate.

Executive compensation was found to have no relationship with ROA, ROCE, and Tobin's Q. In Nigeria, the only information available regarding executive compensation is the disclosure in the financial statements of the

emoluments of the chairperson and the highest paid director. This is a requirement of the law and not a code of corporate governance practice. However, the disclosure is not uniformly applied by the listed companies. Some companies only disclose basic salaries and omit allowances and benefits-in-kind. It is thus difficult to determine, using an objective standard, the completeness of the disclosure of executive compensation in the non-financial companies listed on the NSE.

Another challenge is that Nigerian firms usually provide executive with car and driver, paid annual leave, security details, housemaids and other servants, and allowances such as wardrobe, education, furniture, and housing. Many of these benefits-in-kind were not captured in the disclosure of executive compensation in the financial statements. The results also indicated that in Nigeria, many executives are not rewarded with a portion of the firms profit; rarely do companies link executive pay to the firm's performance. Yet researchers have stated that it is a good policy to link part of executive compensation to the financial fortunes of the company. I recommend that companies should fully disclose all executive emoluments in the financial statements and for the rule to be applied among all the listed firms on the NSE. I also recommend that efforts should be made to link part of the executive compensation to the performance of the company as it gives executive and staff motivation to perform better.

I have been extremely careful in my data gathering and analysis of the result of this study, nevertheless the study has some limitations. This study examined the relationship between corporate governance mechanisms and organizational performance in non-financial companies listed on the NSE that met certain predetermined criteria. The findings in the study cannot be generalized to all listed corporations in the world. Some of the limitations of the study include the use of secondary data, lack of information in some organizations, non-uniformity in the implementation of IFRS, and modeling problems. The use of secondary data and the criteria set for inclusion of corporations in the sample limited the data available for the study. First, the financial statements of all firms were prepared under the historical cost convention. Between 2011 and 2012, all companies adopted the Nigerian Generally Accepted Accounting Principles but a switch was made to IFRS in 2012 which necessitated a restatement of the 2011 and 2012 balances and profit and loss figures.

Secondly, given the possibility of the presence of financial and accounting manipulations and accounting balances misstatements that are common in companies, I would have made appropriate adjustments to balance sheet figures at the end of the year and the profit and loss statements for the year to get an accurate figure to use in my analysis. Thirdly, it is impossible to determine whether the adjustments made by the companies to the financial

statements of 2011 and 2012 and prior period to conform to IFRS was uniformly and correctly applied in all corporations in the sample. Lastly, account balances and income and expenses figures are subject to accounting conventions, accounting bases, and individual firm's accounting policies. It is not practicable to know whether all the firms in the sample prepared their financial statement by adhering to the most useful conventions and accounting policies, from the investors' point of view, that allow the financial statements to show a true and fair view, given that there are more than one policy a company can adopt to reflect its financial transactions in the accounting records.

If information were available, I would have made necessary and comprehensive adjustments to the financial statements to recalculate items in the financial statements, such as EBITDA, book value of equity, long-term debt, current assets, current liabilities, total assets, net working capital, book value of preferred stock, gross and net sales, net income, capital employed, and inventory. The recalculation to adjust the accounting figures to what is true and fair and accurate could have produced different items in the annual reports and accounts and may have resulted in different findings and conclusions. The consequence of the lack of adequate information has necessitated that the accounting figures in the financial statements were taken at face value and used as presented in the corporations' annual reports without any adjustment.

Another limitation of the study is that the sampled companies were drawn from all non-financial companies listed on the stock exchange between 2011 and 2015 that met the prescribed criteria for inclusion. These firms operated in different sectors of the economy. A more accurate sampling method would have been the stratified sampling method to select a significant number of companies from each subsector to avoid over- or underrepresentation of some subsectors. Another limitation is that the Nigerian economy has been facing serious problems since 2012 when international oil prices dropped to an all time low, forcing many companies to apply to the stock exchange for delisting, and many others relocating to other countries while some are making accounting losses. The poor macro-economic situation in the country limited the number of non-financial companies that qualified to be included in the sample. Yet another limitation is that some sectors are represented by only a few companies. For example, information and communications technology subsector had six firms but only two were not making losses out of which one had incomplete financial statements. The other four were either not operating or making losses. The natural resources subsector had only two companies in the sector, one of which was making losses.

The modeling problems in the study arose from the fact that only five corporate governance mechanisms were considered in the study. These five

corporate governance mechanisms have been considered in the literature generally and by the Nigerian researchers in particular and have been enshrined in the Nigeria's SEC code of corporate governance. Other corporate governance mechanisms such as board diversity, dividend policy, number of members of audit committee, frequency of audit committee meetings, auditor's fees, directors' shareholding, executive share ownership, quality of financial statements, directors' qualifications, shareholders' rights, family share ownership, treatment of minority shareholders, and takeover defenses were not considered in the modeling. These other corporate governance mechanisms were not considered in the modeling not because they are not relevant and important, but because they have not received much attention from corporate governance. By using primary data, stratified sampling method to ensure a more fairly representation of each sector, making necessary adjustments to the accounting data and information, and including many more corporate governance mechanisms may have brought out different research findings.

Future studies can build on these research findings by collecting primary data based on surveys and interviews. Some form of primary data can also be used as a supplement to the secondary data. Some of the restrictions used may also be relaxed, such as including all companies that published its financial statements, using only financial statements from 2013 when all companies have

published financial statements using IFRS, and using data that covered 3 years instead of the 5 years used in the study. I used Tobin's Q as a market-based financial performance metric, future studies could use other measures of company value such as economic value added, price per share to earnings per share, market value added, ROE, and the dollar amount spent on research and development. These measures can be used over multiperiod timeframes.

Future studies can also use longitudinal design instead of cross-sectional design to study the relationship between corporate governance and organizational financial performance over a period of time. The design is useful to study changes that have occurred over an extended period of time using trend analysis. Future researchers can also compare the financial performance of a group of firms in a subsector of the economy that has adopted and applied corporate governance practices to another group in the same subsector that has not adopted good corporate governance practices. A study such as this will show whether corporate governance practices are responsible for the differences in performance if significant. Future researchers can also use repeated-measures design to compare the differences in financial performance of companies between one event and the other (i.e., the ROA or Tobin's Q before and after the adoption of corporate governance practices).

Conclusion

I conclude this study by saying that good corporate governance practices are crucial to the long-term financial performance of a corporation. Corporate governance practices assure present and potential investors and other members of the public that a firm's affairs will be conducted in a fair and orderly manner and that the financial statements can be relied upon in making investment decisions. Good corporate governance practices are also good for the economy as private companies are the main generators of employment and a source of innovation and economic growth.

However, firms must consider and implement corporate governance systems in areas that have the greatest impact on their financial performance. I consider board independence, board experience and members' qualification, adequate executive compensation, independence of audit committee, linking executive pay to company performance, appropriate board size that ensures diversity and with the right skills-set and experience, frequent attendance at board and audit committee meetings, and a focus on stakeholders' rights as essential. Poor corporate governance practices should be avoided, such as ownership concentration, appointment of directors through family connections, retention of auditors beyond a 10-year period, excessive leverage, concentrating board power on the chair/CEO, excessive compensation to unproductive

executives, poor CEO accountability, inaccurate information in the financial statements, and self-dealing by the directors.

Based on my findings, I recommend a more independent board of directors composed of knowledgeable and experienced individuals, a more independent audit committee composed of independent directors only, and a more frequent and agenda-driven board meetings. I also recommend that executives should be paid adequately and a portion of the total payment should be a function of the firm's profitability. The total emoluments of highest paid executives should be disclosed in the financial statements. All firms should avoid CEO duality, but if it is unavoidable, a qualified and experienced leader director should be appointed to serve as a counterweight to the chairperson/CEO. For effectiveness, the nonexecutive chairman should be as qualified and experienced as the CEO, if not more. The size of the board should be that which is adequate to ensure that the board is in a position to exercise board power effectively, and what is the right size should be based on the complexity of the company and the competitive environment.

This study provides information that is useful to investors, shareholders, regulators, and other researchers on how to ensure effective and efficiency of operations in organizations, enhance firm value and profitability, and minimize corporate failures. The findings can help investors arrange their

portfolio of investments in corporations with strong corporate governance practices. The findings can be useful to regulators, especially in Nigeria, by showing why some of the provisions in the extant law and corporate governance codes are actually hampering good corporate governance practices. Companies that are careless and dysfunctional in their corporate governance practices are likely to alter their practices to embrace a more proactive and beneficial system of governing their firms. By embracing a strong corporate governance system, firms may be able to avoid weak organizational performance, lack of investor confidence, and the risk of financial distress. A strong corporate governance practice benefits the company in other ways by lowering its cost of funds as the financial markets and analysts perceive a more disciplined and professionally-run business organization.

This study has implications for positive social change. If the study's recommendations are implemented, corporations and their shareholders may benefit from improved profitability and market value. A good corporate governance practice builds confidence in the financial markets, which could be of a great benefit to the firms by being able to borrow from the market at the prime rates, thus lowering the cost of funds. Present and potential shareholders may benefit from improved firm profitability through increased dividend payouts and capital appreciation. Employees could reap the benefits of good corporate

governance practices through job security and enhanced emoluments that come from increased efficiency and effectiveness of their firms. Good corporate governance practices may also minimize company collapses, which will be of great benefits to investors, employees, the government, and members of the general public.

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Appendix A: Search Sources, Search Processes, and Keywords Used in the Study

In this appendix, I describe in detail the sources of information used in the research, the keywords I used in searching for data, and the processes of search. I used the websites of the listed companies, analysts' websites, and the database of the Nigerian Stock Exchange. I also made extensive use of academic research databases as key sources of data for the research study.

Search Sources

Nigerian companies' websites

Nigerian companies' websites provided information on the history of the firms, corporate governance policies and procedures, the board of directors, and information on each director including their resumes, other directorships held, and share ownership. The Investor Relations section on the websites contains operational, financial, and governance information. Data obtained from the financial statements included the frequency of board meetings held in the financial year, the number of audit committee members and their relationship with the company, the number of directors and their affiliation with the corporation, the number of independent directors, executive compensation, the size of the board, the size of the audit committee, and the age of the and the name of the firm.

The database of the Nigerian Stock Exchange (NSE)

I obtained online the data on all public companies' filings from the database of the NSE. The data retrieved from the website included the annual reports and accounts of all sampled companies mandatorily filed with the exchange and corporate actions including reports on mergers and acquisitions, declaration of dividends, and key appointment of auditors, members of the audit committee, and directors. The annual reports and accounts contained information on corporate profile, corporate governance reports, complaints management policy, and notice of the annual general meeting. The financial statements also contained the chairperson's statement, chief executive's report, the report of the directors, statement of directors' responsibilities, audit committee report, and external auditor's opinion on the financial statements. The website also contained information on stock prices, trading volume for all equities, dividend declared, and notice of annual general meetings.

The Nigerian Securities and Exchange Commission (SEC) website

The Nigerian Securities and Exchange Commission is the capital market regulator. The website contained information on the corporate governance code that guide all capital market operators. The website also contained code of corporate governance for shareholders' associations and code of conduct for rating agencies operating in the country.

Analysts' websites

I used analysts' websites in the study including those belonging to the Financial Times of London, Meristem Securities, and the Bloomberg L.P. Company. The Financial Times website provided information on the companies' historical stock prices, income and cash flow statements, balance sheet, and various metrics such as earnings per share (EPS), total debt to total capital, gross margin, return on assets (ROA), return on equity (ROE), and return on investment (ROI). Meristem Securities website contained a full appraisal of selected companies financial performance, including computations of fundamental metrics such as book value per share, ROA market capitalization, asset turnover, and leverage. In the Bloomberg L.P. website, I accessed information on companies' outstanding shares, number of directors, price quotes, share volume turnover, market capitalization, price per earnings (P/E) ratio, and enterprise value.

Academic Databases

I obtained the description of key research variables, concepts, and theoretical frameworks from several academic research databases. The databases accessed for the purpose of this study were as follows:

1. Business Source Complete

Business Source Complete database provided very useful full-text, peer-reviewed academic journal in various field of management, such as business, finance, and general management. The database contained thousands of case studies, financial data, and SWOT analyses.

2. ABI/INFORM Collection

ABI/INFORM database provided peer-reviewed journals, reports, working papers, management theory and practices, trends in business, and business competition and strategy.

3. ScienceDirect

The ScienceDirect database contained several unique peerreviewed journals with special focus on management, information technology, and psychology. Many of the journals may not be available in any other databases.

4. Accounting & Tax

Accounting & Tax database contained scholarly journals that addressed current issues in accounting, finance, and taxation. The database included key resources for a quick location of news, current topics, and trends and history that influence accounting, finance, and tax issues.

5. Academic Search Complete

Academic Search Complete database provided very useful and comprehensive multidisciplinary peer-reviewed journals conference papers, and

other resources. Full text research articles were available in corporate finance, business management, accounting, and the social sciences disciplines.

6. Social Science Research Network (SSRN)

The Social Science Research Network provided very good information in many social sciences area. I extracted information from the database using full-length articles and abstracts.

7. ProQuest Central

The ProQuest Central database provided a large selection of scholarly and peer-reviewed academic journals. The database has other unique materials such as newspapers, dissertations, and information on business, management, and finance.

8. Emerald Management

Emerald Management database provided several management research for the scholar as well as the practitioner. The peer-reviewed journals covered diverse subject areas such as auditing, accounting, finance, economics, organizational behavior, and general management.

9. Sage Premier

The Sage Premier database provided 56 peer-reviewed management journals. Some of the research content are very unique to the database.

10. Google Scholar

The Google Scholar contained peer-reviewed journals and database provided access to some of the journals used in the study. The site was linked to Walden University library and also provided links to other sites such as Science Direct, which is one of the largest databases consisting of a collection of research in social, physical, and health sciences.

Keywords

The keyword search terms I used in this study were: accounting, amortization, asset turnover, audit committee, audit committee independence, audit committee report, auditing, agency cost, agency problems, agency theory, bad governance change, balance sheet, board of directors, board meetings, board secretary, board size, board structure, book values, book value per share, Business Roundtable, capital employed, cash flow, CEO duality, chairperson's statement, code of ethics, code of conduct, code of corporate governance, Companies and Allied Matters Act, conflicts of interest, corporate collapses, corporate governance principles, corporate governance report, corporate information, corporate misbehavior, corporate scandals, corporate social responsibility, current assets, current liabilities depreciation, directors report, Directors' responsibility, dividends, dysfunctional management, earned value added, earnings, earnings per share, economic value added, emission standards cheating, enterprise value,

equity prices, executive compensation, external auditing, financial performance, Financial Reporting Council of Nigeria, financial ratios, financial risks, financial structure, firm age, firm size, fraud and irregularities, good governance change, golden parachute, Gov.-score, governance committee, gross domestic product, gross margin, income statement, independent director, information asymmetry, International Financial Reporting Standards, institutional investors, internal auditing, leverage, long-term debt, long-term financial performance, management entrenchment, market capitalization, market value, Meristem Securities Limited, misappropriation, moral hazard, net assets, Nigerian Securities and Exchange Commission, Nigerian Stock Exchange, notice of annual general meeting, , number of directors, Organization of Petroleum Exporting Countries, poison pill, Ponzi scheme, Public Companies Accounting Oversight Board, Price/Earnings ratio, price metrics, proxy statements, quality of earnings, non-executive director, organizational performance, ownership structure, return on assets, return on capital employed, return on equity, return on investment, risk management, sales turnover, Sarbanes-Oxley Act, separation of ownership and control, stakeholders, stakeholders' theory, stewardship theory, shareholders' association, shareholders' wealth, stock prices, take-over defense, theory of the firm, Tobin's Q, total assets, transparency, United Nations Development Program, and volume of trading**.**

Search Process

In this section, I will describe the process used to obtain data from websites and academic research database systems:

The process used to obtain data from the Nigerian Stock Exchange website was as follows:

1. Access www.nse.com.ng
2. Look for issuers
3. Select listed companies
3. Enter the company's name and ticker symbol
4. Select financials
5. Select the year of interest (e.g., 12/31/2015)
6. Select financial statement
7. Select full and supplementary income and cash flow statements and the statements of financial position
8. Select market data and access trading statistics such as volume, value, deals, and market capitalization
9. Download Daily Trading Statistics of listed securities and obtain closing stock prices, weekly report of equities, top gainers, and the Daily Official List for equities
10. Select corporate actions

11. Select press releases.

The following steps were used to search the companies' websites and extract data from the accessed financial statements and annual reports.

Access company website (e.g., www.nestle-cwa.com)

Select investors

Select download company business principles

Select download annual account and reports

Search for financial statements and supplementary data

Select Notice of Annual General Meeting

Select Company Profile

Search for Chairman's Statement

Search for Chief Executive Report

Search for Directors' Report, including Board Structure, Board Com position, Number of Directors, Number of Independent/Non-executive Directors, Board Meetings held in the year, attendance at the meetings, and directors' resumes and company affiliation

Search for Corporate Governance Report for the year addressed to members of the company

Search for the composition of Audit Committee, attendance at the committee meetings, and the signed report of the committee addressed to shareholders

Search for Companies' Officers, Directors, and Advisers

Search for Annual proxy statements

Search for Statement of Directors' Responsibilities

Search for the Independent Auditors' Report

Select the Statement of Financial Position and compute total assets, current liabilities, current assets, inventory, book value of equity, long-term liabilities, number of outstanding shares, and paid-up capital

Select statement of comprehensive income and compute earnings before interest, taxation, depreciation, and amortization (EBITDA).

Search for Executive Compensation.

Select Share Information and compute the number of ordinary shares in existence at the end of the year.

Select other National Disclosures and access Five-year Financial Summary and Value-added Statements.

The process I used to search for data on the website of the Nigerian Securities and Exchange Commission was as follows:

Access www.sec.gov.ng

Select regulation

Select rules and codes

Select Code of Conduct for Rating Agencies

Select Code of Corporate Governance for Shareholders' associations

Select Code of Corporate Governance for Public Companies.

I used the same process that was employed while searching data on companies' websites to access data on the analysts' websites. On the website of Meristem Securities Limited, I accessed data as follows:

Access www.meristemng.com

Select Research Hub

Select Investor Services/Market Intelligence

Select equity market update

Select equity research reports

Select the desired listed equity

Search for market capitalization, share price, dividend per share, and earnings per share.

On the website of Bloomberg L.P., I followed the following process to access data:

Access www.bloomberg.com

Select Markets

Select Stocks

Select EMEA

Select Africa

Select Nigeria

Select NGSE/INDX:IND Nigeria

Go to stock exchange Main Board

Lookup total members, day range, 52-week range, year-to-date return, and previous close for equity prices.

The following process was used to access data on Financial Times website:

Access www.markets.ft.com

Select Markets

Select Market data

Select equities

Type name of company in "find a company" dialog box

Search summary, price, and shares traded

Select financials and search income statement, cash flow statement, and balance sheet

Search directors and dealings

Search historical prices.

I used the same process to get data from various websites, even though the details and organization of data varied from website to website. On a company's website, I collected information from the Investors' Relations portion of the website. Publicly listed companies in Nigeria upload their financial reports and other data in the Investors' Relations of the website. Another feature of the investment climate in Nigeria is that the consolidated financial statements have extensive details on the board composition, the history of the firm, audit committee composition, number and portfolio held by executive directors, full resume of all directors and the relationship with the firm. The financial reports and accounts also contained sections for the Chairman's Statement, The Report of the Chief Executive, the Report of the Audit Committee, the Statement of Directors' Responsibilities, the number of board and Audit Committee meetings held in the year, and the number of meetings each director attended.

The consolidated financial statements also included sections for various committee reports, such as operations committee, risk management committee, executive compensation committee, finance and general purposes committee, and establishment committee. The number of board committees vary from company to company, depending on the size, history, and the sector. From the financial statements, I collected data on net sales; EBITDA; executive compensation; total assets; current assets; current liabilities; and net working capital. I also collected

data from the financial statement on capital employed, long-term liabilities, shareholders' funds, the number of shares outstanding, and long-term debt. The Corporate Governance Report section of the financial statements and reports provided data on corporate governance variables, such as the number of executive and non-executive directors, whether the chair is also the chief executive, the number of board meetings held during the year, the size of the board, number of committees, external and independent directors, and the directors full resume. The Audit Committee Report section of the financial statements contained the number of the committee, the interest each of them represented, a report of their findings, and the number of times they met during the year.

Appendix B: Index Scoring Methodology

I entered the data collected on Microsoft Excel spreadsheet to calculate the mean, median, mode, and standard deviation. Tobin's Q was also calculated using the excel spreadsheet with the following formula: Market value of equity + book value of preference shares + inventory + current liabilities – current assets / total assets (Dharmadasa et al., 2014). Return on Assets (ROA) was calculated using excel spreadsheet using the following formula: Earnings before interest, taxes, amortization, and depreciation divided by the book value of total assets. Return on Capital Employed (ROCE) was also calculated by excel spreadsheet using the following formula:

Earnings before interest, taxes, amortization, and depreciation divided by book value of capital employed.

Capital employed is computed as approximately as follows:

Book value of shareholders' funds or Net Assets + Long-term debt.

The average score for each research dependent variable was the average of the scores for the 5 years (i.e., the total scores for 2011 to 2015 were added together and divided by 5 to get the average score).

Appendix C: List of Sampled Companies

Company name	Ticker Symbol	Subsector
A. G. Leventis Nigeria PLC	AGLEVENT	Conglomerates
Airline Services & Logistics PLC	AIRSERVE	Services
B.O.C. Gases PLC	BOCGAS	Natural Resources
Berger Paints PLC	BERGER	Industrial Goods
C&I Leasing PLC	CILEASING	Services
Cadbury Nigeria PLC	CADBURY	Consumer Goods
CAP PLC	CAP	Industrial Goods
Capital Hotel PLC	CAPHOTEL	Services
Dangote Refinery PLC	DANGSUGAR	Consumer Goods
DN Meyer PLC	DNMEYER	Industrial Goods
E-Tranzact Internal PLC	ETRANZACT	ICT
Eterna PLC	ETERNA	Oil and Gas
Fidson Healthcare PLC	FIDSON	Healthcare
First Aluminium Nigeria PLC	FIRSTALUM	Industrial Goods
Flour Mills Nigeria PLC	FLOURMILL	Consumer Goods
Glaxo Smithkline Consumer PLC	GLAXOSMITH	Healthcare
Greif Nigeria PLC	VANLEER	Industrial Goods
Guinness Nigeria PLC	GUINESS	Consumer Goods
Honeywell Flour Mills PLC	HONYFLOUR	Consumer Goods
Julius Berger Nigeria PLC	JBERGR	Construction/Real Estate
Livestock Feeds PLC	LIVESTOCK	Agriculture
May & Baker Nigeria PLC	MAYBAKER	Healthcare
MRS Oil Nigeria PLC	MRS	Oil & Gas
Nascon Allied Industries PLC	NASCON	Consumer Goods
Nestle Nigeria PLC	NESTLE	Consumer Goods
Nigerian Aviation Handling Company PLC	NAHCO	Services
Nigerian Breweries PLC	NB	Consumer Goods
Nigerian Enamelware PLC	ENAMELWA	Consumer Goods

PZ Cussons Nigeria PLC	PZ	Consumer Goods
Presco PLC	PRESCO	Agriculture
Red Star Express PLC	REDSTAREX	Services
Studio Press Nigeria PLC	STUDPRESS	Services
Total Nigeria PLC	TOTAL	Oil and Gas
Trans-nationwide Express PLC	TRANSEXPR	Services
Transnational Corporation of Nigeria PLC	TRANSCORP	Conglomerates
UACN PLC	UACN	Conglomerates
UACN Property Development Company PLC	UNC-PROP	Construction/Real Estate
Unilever Nigeria PLC	UNILEVER	Consumer Goods
Vitafoam Nigeria PLC	VITAFOAM	Consumer Goods